

United Nations Activities on Artificial Intelligence (AI) 2024



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United Nations Activities on Artificial Intelligence (AI)

2024



Foreword



If 2023 was the year of generative artificial intelligence, 2024 was marked by the rapid expansion and adoption of AI, driving waves of innovation across nearly every conceivable domain.

The United Nations system has kept an encouraging pace, redoubling efforts to harness the power and potential of AI responsibly.

That progress is visible not only in the soaring number of UN AI initiatives – now totalling 729 projects, from 406 last year – but also in the depth of engagement across the system, with 53 UN entities contributing to this year's Activities Report, six of them for the first time.

This gathering momentum reflects our shared conviction that AI is no longer a distant aspiration; it is a present-day imperative within and beyond the United Nations.

The projects highlighted here tackle urgent challenges, from accelerating climate action to improving health outcomes to expanding educational access, bolstering governance, and creating decent work. Nearly half of these efforts are built on partnerships with governments, academia, industry, and civil-society organizations, underscoring the multistakeholder spirit at the heart of the UN's inclusive digital transformation agenda.

Across our work, AI is already driving efficiencies, revealing deeper insights, and informing faster responses – from chatbots that streamline public-service delivery to data tools that strengthen emergency responses to applications that keep meetings and consultations running smoothly. These innovations are extending the reach and impact of our work in practical, promising ways.

Yet the UN remains keenly aware of the risks and responsibilities that accompany AI. Ethics, human rights, and inclusion anchor every initiative, guiding us toward a shared digital future where AI helps us advance opportunity and prosperity for all.

This report – prepared by the International Telecommunication Union (ITU) in partnership with 52 other UN entities – embodies the system's resolve to lead by example. Read on to discover how AI is already driving progress, delivering results, and reshaping the way the UN serves people and planet in the digital age.

As you read, consider how the coming wave of autonomous AI agents – set to accelerate in the years ahead – might help us build on this momentum while demanding even more collaboration, heightened vigilance, and deeper ethical stewardship.

A stylized, handwritten signature in black ink, consisting of a large loop followed by a series of connected strokes.

Doreen Bogdan-Martin
Secretary-General
International Telecommunication Union

Executive Summary

Highlights

- 53 entities participated, 729 projects reported.
- An increase of 13% in participating entities and 79% in projects reported.
- Strong focus continues to be maintained by the reported projects on SDGs 9 (Industry, Innovation and Infrastructure), 10 (Reduced Inequalities), 16 (Peace, justice and strong institutions) and 17 (Partnership for the Goals), with SDG 8 (Decent work and economic growth) added to top 5 list for the first time. In 2023, SDG 13 (Climate Action) had featured among the top five SDGs and while focus remains consistent on it this year as well, the number of projects reporting work on SDG 8 (Decent work and economic growth) has increased, bringing it to the top 5 SDGs addressed.
- More focus continues to be needed on SDGs 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), 12 (Responsible consumption and production), 14 (Life Below Water) and 15 (Life on Land), which is a finding that remains consistent with the both the 2023 and 2022 editions of the Report.
- Multi-stakeholder collaborations continue to remain a priority for the UN system. Nearly 45% of the UN projects have reported collaborations with the UN system, the private sector, governments, civil society, academia, or with another international organization, demonstrating the UN's focus on maintaining strong partnerships with internal and external stakeholders.
- Consistent with the findings of the past two editions, the most common outputs of the UN system's work on AI remain reports and software tools like mobile applications, web applications, searchable dashboards, and generative AI-powered chatbots.

Urgent action is needed to achieve the Sustainable Development Goals (SDGs) by 2030. With the potential to drive progress across all 17 SDGs, the use of Artificial Intelligence (AI) can help speed and scale interventions for this purpose.

Recognizing this, the different bodies, agencies, offices and departments of the UN system have been exploring ways to leverage the potential of AI to drive change and impact across their issue areas. In 2020, the UN System Chief Executives Board for Coordination (CEB) and its High-Level Committee on Programmes (HLCP) established the [Interagency Working Group on AI \(IAWG-AI\)](#), co-led by ITU and UNESCO, to bring together UN system expertise on AI in support of the CEB and HLCP workstreams on the [ethics of AI](#) (led by UNESCO) [and the strategic approach and road map for supporting capacity development](#) (led by ITU), and the related gap analysis effort carried out by ITU, informed by the UN Activities on AI Report, to identify the gaps in UN AI-related activities in order to help the UN system prioritize strategic actions.

Since 2021, the IAWG-AI has successfully galvanized expertise from across the UN system as well as external stakeholder groups to advance the responsible development and use of AI in the UN, underpinned by ethics and human rights, while driving forward the 2030 Agenda on Sustainable Development. As part of the IAWG-AI, UNESCO and OICT have led the development of the [Principles for the Ethical Use of Artificial Intelligence in the United Nations System](#), which were based on UNESCO's Ethics of AI Recommendation and endorsed by the HLCP at its 43rd session

and the CEB in 2022. In addition, the IAWG-AI [United Nations System White Paper on AI Governance](#) (White Paper), which analyses the UN system's institutional models, functions, and existing international normative frameworks applicable to global AI governance, has been approved by HLCP at its 47th session and was subsequently endorsed by the CEB in May 2024.

To implement the recommendations for the UN system as set out in the White Paper, the HLCP requested the IAWG-AI, in October 2024, to develop an integrated AI toolbox and common online platform based on an agreed standardized taxonomy, serving as a centralized UN hub for all AI-related resources and activities across the system, with an expected progress update on the platform due in 2025.

In addition, in 2024, the AI for Good platform, hosted by ITU in partnership with more than 40 UN entities and co-convened with Switzerland, grew its online community to over 180,000. The 2024 AI for Good Global Summit was joined by 5,000+ in-person attendees and 35,000 online audience¹. This multi-stakeholder community includes representatives from 180+ countries and has consistently attracted broad based international media coverage, making it the leading action-oriented, global and inclusive United Nations platform on AI.

The AI for Good Neural Network continues to grow: an AI-powered community networking and content platform designed to help users build connections with innovators and experts, link innovative ideas with social impact opportunities, and bring the community together to advance the SDGs using AI. AI for Good Partners showcase their work on the Neural Network through weekly live sessions, virtual exhibitions, networking features and interactive content. UN Partners have also created “poster boards” in the “UN SDG Zone” of the platform to virtually exhibit their work on AI, viewable by all Neural Network users, and open for interaction with users via the booth wall and smart matching system. The chapters of this Report are available on the respective poster boards of the UN entities as well.

Complementary to these efforts, ITU, the UN's specialized agency on digital technologies, has been coordinating the compilation of an annual up-to-date directory since 2018 of all the AI-related projects, initiatives, events and processes that are being carried out within the UN system in the form of the UN Activities on AI Report.

The Report is a joint effort between ITU and 52 other UN agencies and bodies, all partners of [AI for Good](#) and members of the [UN Interagency Working Group on AI](#). It presents use cases, projects and initiatives run by the UN system, in areas covering all 17 SDGs and ranging from smart agriculture and food systems to transportation, financial services, and healthcare. This Report is not intended to produce an exhaustive inventory of the UN system's work on AI. Rather, it is a tool to further collaboration and build common understanding around emerging AI technologies and solutions.

In the 2024 edition, 53 UN entities were engaged, 6 entities for the first time, and 729 projects have been presented. A brief analysis of the key tracks and trends arising from the submissions is provided below to help provide an overview of the extensive work that is taking place within the UN system as well as to assist UN bodies and agencies to identify the areas which could benefit from increased interventions as they develop future projects.

Despite the increased number of projects submitted for the Report this year, along with the updates made to the existing ones, an analysis of the activities submitted yields findings that

¹ This publication is being released during the 2025 AI for Good Global Summit.

Methodology

- This edition's chapters were updated by each of the participating UN bodies and agencies respectively, based on the 2023 UN Activities on Artificial Intelligence Report.
- New chapters were drafted for the 6 additional entities who have contributed to this Report for the first time.
- Updated inputs were not provided by 6 entities for this edition. Their chapters and projects have been retained from the 2023 edition in this Report.
- All submissions received this year have been harmonized and formatted for the purpose of reproduction in the Report.
- For the Executive Summary, select data points were extracted from the submissions received to develop an analysis along five specific indicators: SDGs addressed, multi-stakeholder collaborations, types of projects, sectoral focus, and project status.
- All submissions received by 31 May 2025 have been included in the Executive Summary analysis.

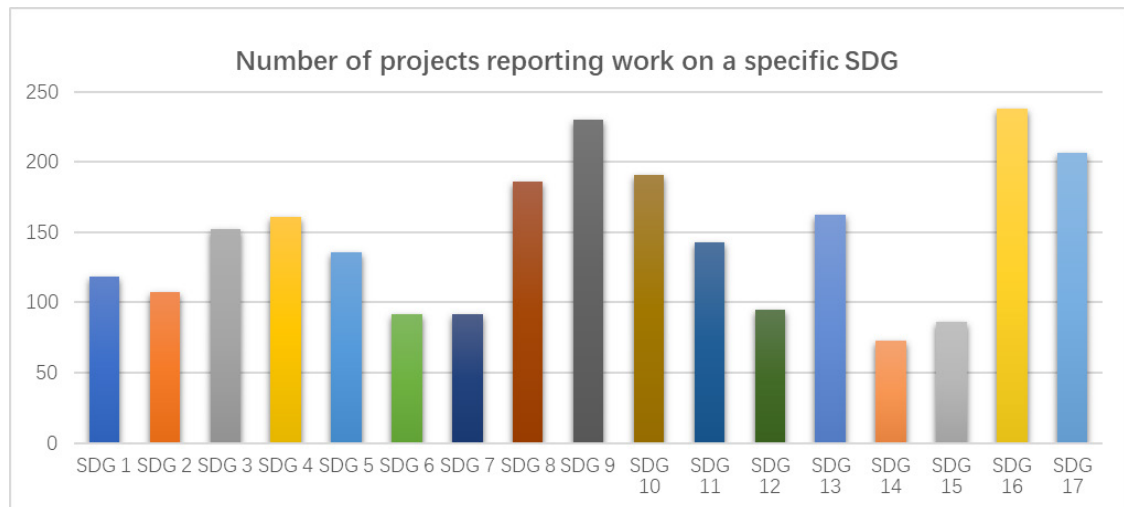
remain substantially consistent with those of the 2023 edition of this Report, in terms of the thematic priorities and outputs of this work. Some fluctuations are detailed in the section below, but these are likely attributable to standard deviations occurring due to changes in personnel and the level of reporting annually. Significantly, the substantial increase in project numbers demonstrates the emphasis that continues to be placed across the UN system on leveraging the potential of AI across several issue areas through concrete projects.

The relative stability on the key thematic priorities and SDGs across the past three editions indicates a steadiness of efforts from entities in those areas. It could also be emblematic of the demand that is emanating from Member States and stakeholders for UN action and intervention across these topics. In particular, the emphasis on SDG 8 (Decent work and economic growth), is illustrative of the urgency of harnessing AI to stimulate inclusive economic growth, the scale of workforce transformation required to ensure equitable benefits, and the recognition of AI's potential of enhance productivity and job quality across diverse sectors. Future editions of the Report will aim to continue analyzing these trends with an aim to provide insight into the nature and status of the UN AI activities.

This Report is being released at the [2025 edition of the annual AI for Good Global Summit](#).

Key tracks and trends

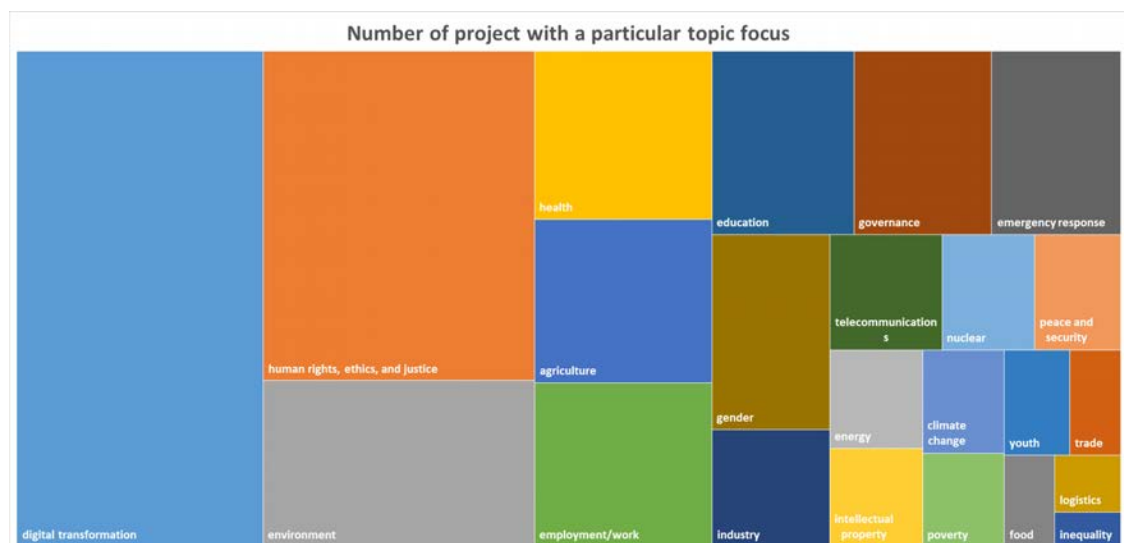
1. SDG Mapping



Around 84% of the submissions have linked their projects with outcomes driving forward specific SDGs. Among them, the overwhelming majority address more than one SDG, signaling holistic, multidimensional projects.

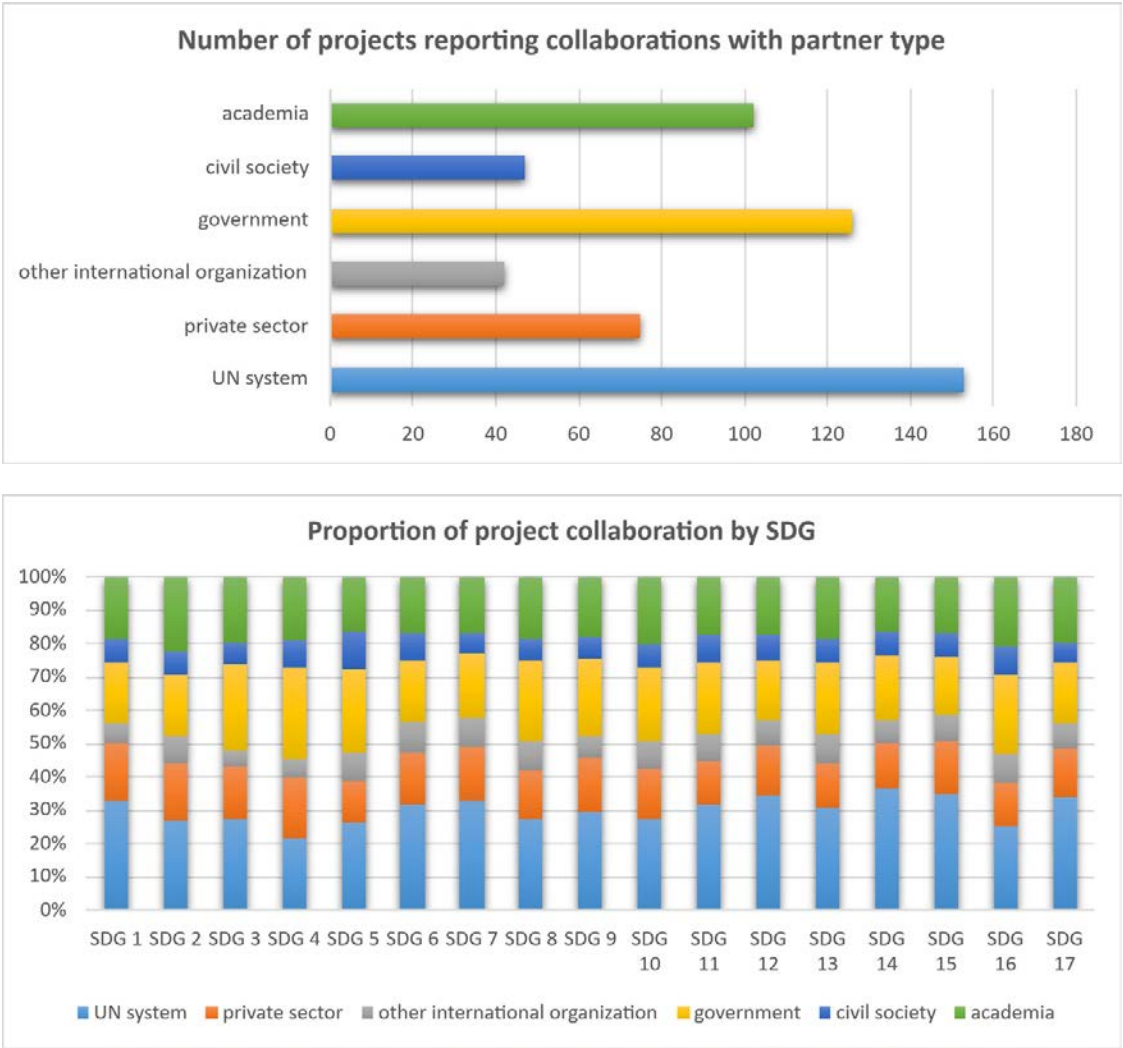
SDGs 9 (Industry, Innovation and Infrastructure), 10 (Reduced Inequalities), 16 (Peace, Justice and Strong Institutions), and 17 (Partnership for the Goals) continue to remain among the top five most common SDGs addressed by the UN AI projects. However, this year's edition reports that while focus on SDG 13 (Climate Action) remains consistent, there is an increase in the number of projects reporting on *SDG 8 (Decent work and economic growth)* bringing it up to the list of the top five most common SDGs addressed by projects this year. Meanwhile, similar to the last edition, more targeted action could be taken across SDGs 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), 12 (Responsible consumption and production), 14 (Life Below Water) and 15 (Life on Land).

2. Project Subject Areas



In addition to the SDG mapping, participants have also set out some of the issue areas within which their AI projects are operating. Nearly 71% of the projects reported their specific issue areas. In most cases, the projects are often reported as addressing multiple areas. Digital transformation, human rights, ethics and justice, environment, health, agriculture, employment and work, education, governance, emergency response and gender are tagged as priority subject areas in this edition. In particular, projects focusing on digital transformation, employment and work have increased compared to the 2023 edition which correlates to the overall increased focus on SDG 8 (Decent work and economic growth) in this year’s projects.

3. Driving Multi-stakeholder Collaboration



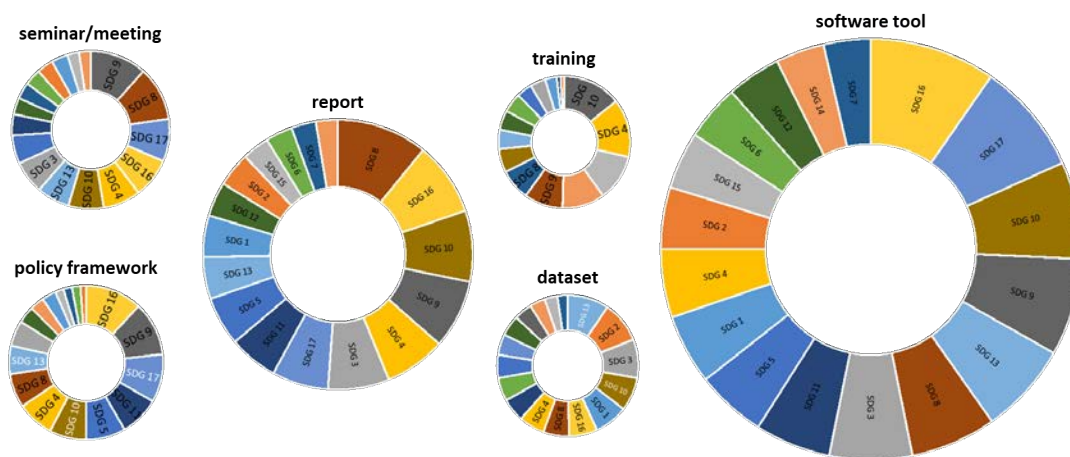
Almost 45% of the UN projects have reported collaborations with the UN system, the private sector, governments, civil society, academia, or with another international organization, demonstrating the UN’s focus on maintaining strong partnerships with internal and external stakeholders. A breakdown of the collaborations demonstrates

- Nearly 21% of the projects reporting collaborations with entities within the UN system; and
- Almost 18% of the projects reporting collaborations with government, 14% with academia, and 11% with the private sector.

In particular, the data shows a 56% increase in projects collaborating with other international organizations, 39% increase with civil society, 37% increase with government and 35% increase with academia, in comparison to the 2023 edition.

4. Reports and software tools to address challenges

Project Outputs by SDGs



(Doughnut size = number of projects)

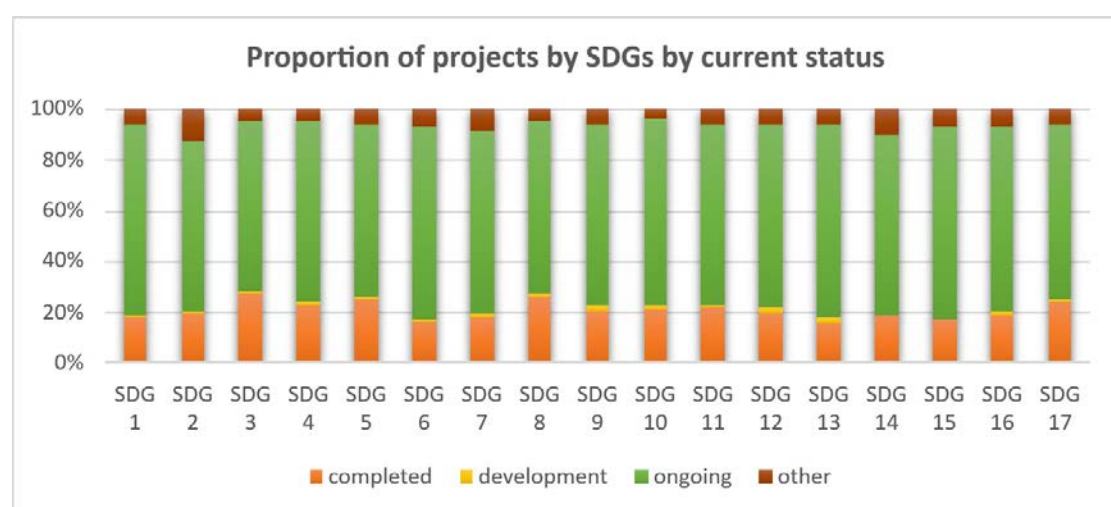
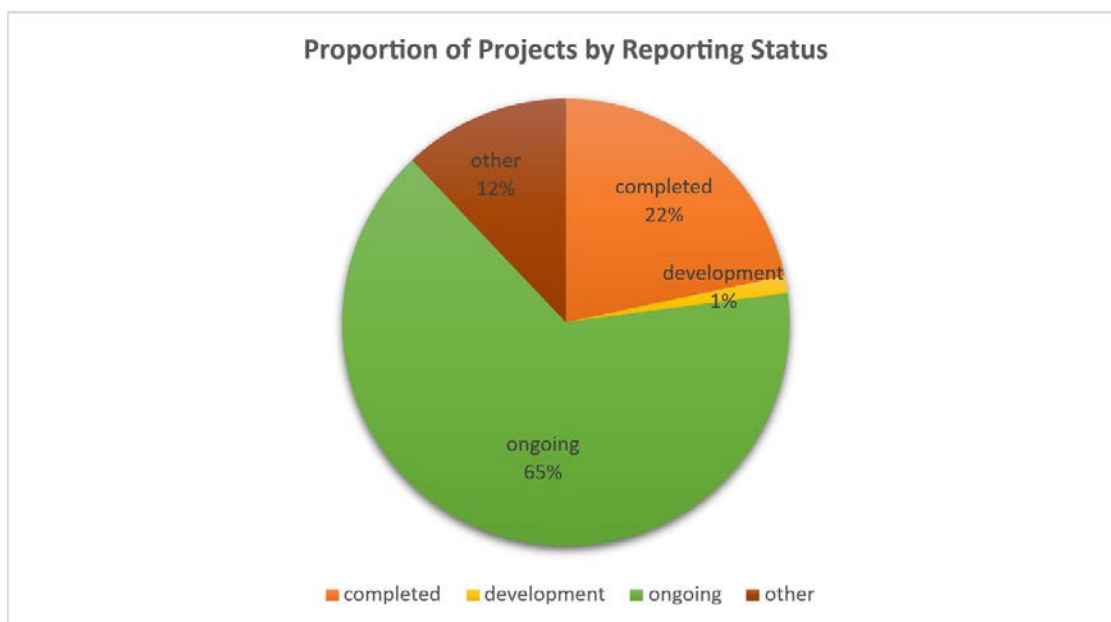
About 62% of the projects reported their project types or outputs this year. Among them, consistent with the findings of the 2022 and 2023 editions, a significant number have focused on outcome-driven products and deliverables such as reports or software tools like mobile applications, web applications, searchable dashboards, or generative AI-powered chatbots. In addition, about 7% indicated a focus on creating policy guidance, and 6% on seminars or meetings.

As of now, many of the current software tools produced on AI relate to SDG 9 (Industry, Innovation, and Infrastructure) and SDG 10 (Reduced Inequalities), as compared to 2023's focus on SDGs 9 (Industry, Innovation, and Infrastructure) and 13 (Climate action), while 2022's focus was on SDGs 3 (Good health and well-being) and 9 (Industry, Innovation, and Infrastructure). Many delivered reports relate to SDG 8 (Decent work and economic growth), as compared to SDG 10 (Reduced Inequalities) in the last edition. Focus on SDGs 16 (Peace, justice and strong institutions) and 17 (Partnership for the goals) remains strong across all the project outputs, which is consistent with the last edition.

5. Looking forward

Project Status by SDG

While nearly 88% of the projects reported their current status, a number of projects did not report specific end dates, or in some cases, the project duration.



In terms of status of the projects (in development, ongoing or completed), the majority of the reported UN AI projects are currently ongoing, i.e. 65% projects, which remains the same as 2023, while the percentage for 2022 was 57%. Those projects related to SDG 8 (Decent work and economic growth) and SDG 17 (Partnership for the goals) report the most completed projects, which is also consistent with the findings of the 2023 edition.

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Comprehensive Nuclear-Test-Ban Treaty Organization



1. Description of Activities on AI

The Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans nuclear explosions on the Earth's surface, in the atmosphere, underwater and underground. The Treaty has a unique and comprehensive verification regime consisting of three pillars:

- The International Monitoring System (IMS) will, when complete, consist of 337 facilities worldwide to monitor the planet for signs of nuclear explosions. Around 90 percent of the facilities are already up and running.
- The International Data Centre (IDC) at the CTBTO's headquarters in Vienna acquires data from the IMS monitoring stations. The data are processed automatically, reviewed by human analysts and distributed to the CTBTO's Member States in both raw and analyzed form. On-site inspections (OSI) can be dispatched to the area of a suspected nuclear explosion if data from the IMS indicate that a nuclear test has taken place there. Inspectors collect evidence at the suspected site.

Artificial Intelligence (AI) is applied in all three pillars of the verification regime as outlined below.

Project 1: To detect fall army worm damage using a mobile application

Classifying signals from seismic stations to determine their seismic phase based on features measured automatically. The features include amplitude, frequency content, particle motion parameters, etc. Manual data processing of signals from seismic stations is cumbersome thus the need to automate data processing at ICTBTO's International data center.

- Project Type (Status): Software project (Proof of concept)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: Artificial Neural Networks (ANN) and Bayesian Classifiers
- Datasets: Automatic signals from the International Monitoring System (IMS), reviewed and corrected by human analysts.
- Related SDGs: SDG 16 - Peace, Justice and Strong Institutions
- Resources/Skills: Human experts to review and correct the signals from seismic stations of IMS
- Technology: Deep Learning
- Challenges: Improvement of the current system by retraining the existing ANNs on a per station basis and replacing the ensemble of ANN and Bayes Classifiers with a deeper ANN. Methods are being explored for seismic phase identification directly from the waveform signal. Further studies are being undertaken to determine if the use of additional information, such as the raw waveform data, during classification can further improve performance

Project 2: Network Processing of detected signals to determine the events that have triggered them

Detection of events by on-site inspections for every signal detected is time consuming and expensive hence the need for network processing of signals detected at seismic, infrasound and hydro-acoustic stations in determining the events that have caused these signals to be observed.

- Project Type (Status): Software project (Deployment)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: Rule-based
- Datasets: Signals detected at seismic, infrasound and hydro-acoustic stations of IMS
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions
- Challenges: Further research is being undertaken on the classification of radionuclide spectra by ANNs

Project 3: NET-VISA (NETwork processing Vertically Integrated Seismic Analysis)

Improvement of the current rule-based system.

- Project Type (Status): Software project (Deployed)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: Machine Learning + physics model. The theoretical underpinnings are based on the “Open Universe Probability Model”
- Datasets: Signals detected at seismic, infrasound and hydro-acoustic stations of IMS
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions
- Project Partners: University of California (developing NET-VISA software)
- Resource: Bayesian approaches. Knowledge of seismic, infrasound, and hydro data
- Challenges: Extending to stations without detailed history from which to derive priors.

Project 4: Automatic triage

Distribute certain trouble tickets based on their content.

- Project Type (Status): Software project (Deployment)
- Project Domain: Global nuclear explosion monitoring
- Datasets: Signals detected at seismic, infrasound and hydro-acoustic stations of IMS
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions

Project 5: Predicting failure at IMS stations

Predicting failure at IMS stations based on extensive State Of Health (SOH) parameters that are continuously collected and store.

- Project Type (Status): Software project (Deployed)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: Statistical methods and rule-based system; Next approach: ANNs and Support Vector Machines (SVM).
- Datasets: IMS data and noble gas monitoring system SOH data.
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions
- Project Partners: Pacific National Northwest Laboratory (PNNL)

Project 6: Seismic aftershock monitoring

Monitoring changes in the geological structures caused by a possible nuclear explosion and classifying “weak” detections produced to enable separation of noise from signals of interest (aftershocks).

- Project Type (Status): Software project (Testing)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: AI-based technique and Self Organizing Map (SOM)
- Datasets: IMS raw waveform data
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions
- Project Partners: University of Stuttgart (developed AI-based technique)

Project 7: Satellite monitoring for On Site Inspection (OSI)

The use of air-and-spaceborne multispectral imagery (MSIR) for classification and change detection in the inspection area, with the ultimate goal of limiting the search area and detecting features of interest.

- Project Type (Status): Software project (Ideation)
- Project Domain: Global nuclear explosion monitoring
- AI Approach: Pixel-based classification (unsupervised and supervised Machine learning), object-based classification (decision rules and fuzzy-logic) and Change detection techniques using Multivariate Alteration Detection (MAD)
- Datasets: Air and Space-borne multispectral imagery (MSIR)
- Related SDGs: SDG 16 – Peace, Justice and Strong Institutions
- Resource: GIS (Geographic Information Systems) operations
- Challenges: Timeframe during an ‘On Sight Inspection (OSI)’ (e.g. availability of imagery)

2. Related Sustainable Development Goals

SDG 16 – Peace, Justice and Strong Institutions

3. Relevant links

www.ctbto.org

Contact information: Megan Slinkard, Chief, Software Applications, International Data Center Division (Megan.Slinkard@ctbto.org)

The Food and Agriculture Organization



Food and Agriculture Organization
of the United Nations

1. Description of Activities on AI

Project 1: ATIO AI

- Project Description: Design the ATIO knowledge base and AI and web scraping technologies for the automated collection of entries for the ATIO Knowledge base. Advise on the strategic discussion on the roadmap, position and value of the ATIO Knowledge base for academia, civil society, policymakers and governments.
- Project Type/Output: Software, Dataset
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Agrifood systems
- Data Source: [WIPO](#), [Digital Agri Hub](#), [Digital Impact Exchange](#) and [Green Technology Selector](#)
- Publicly Available Data: Yes
- Technology/Platform: Still to be selected.
- Related Sustainable Development Goals (SDGs): SDG 2 - Zero Hunger
- Links and Multimedia: <https://www.fao.org/documents/card/en/c/cc2506en>
- Contact information: Fabrizio Brescani (Fabrizio.Brescani@fao.org), Erik VanIngen (Erik.VanIngen@fao.org), Sonia Dias (Sonia.Dias@fao.org).

Project 2: Crop phenology and crop calendar with remote sensing and GEO-AI

- Project Description: Crops phenology and crop calendars are essential to many agricultural applications. This project uses time-series satellite remote sensing data and auxiliary data to generate crop phenology data and crop calendar, employing machine learning and GEO-AI. There are 2 phases of the project: First, algorithm development is committed in several pilot regions, and then a global dataset will be produced.
- Project Type/Output: Dataset
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2026
- Project Domain: Agriculture
- Data Source: Satellite data, agricultural statistical data, land cover, land use data and in-situ data.
- Publicly Available Data: Yes
- Technology/Platform: Google Cloud Platform; Python

- Project Updates: The Phase 1 – Development and Validation was extended until 2026.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 13 – Climate Action
- Contact information: Pengyu Hao (pengyu.hao@fao.org); Zhongxin Chen (zhongxin.chen@fao.org).

Project 3: Creating Key Messages for the DSP mobile application

- Project Description: Digital Services Portfolio (DSP) is the FAO mobile application for digital advisory services. It has been implemented in over 11 countries. One of the biggest challenges during any implementation is creating content digestible by extension services and farmers. While there is a lot of technical information, manually creating key messages is very cumbersome and time consuming. The project is building a prototype using Open AI chatbot to create key messages from FAO/Country based technical documentation.
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Agriculture Digital Advisory
- Data Source: Technical documentation.
- Publicly Available Data: Yes
- Technology/Platform: Open AI
- Project updates: Minimum Viable Product (MVP) created. The project was extended to optimize the models and improve the results.
- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger
- Lessons Learned: The improvement of the current system by automating the summary of the technical documentation and converting it to the appropriate language levels has been a challenge. It is essential to include human experts to review and correct key messages.
- Contact information: Dioguen Zaridze (Dioguen.Zaridze@fao.org), Misael Sabbadini (Misael.Sabbadini@fao.org).

Project 4: Animal Feed Balance calculation

- Project Description: Animal Feed Calculator is an existing FAO application that helps livestock keepers mixing cow feed based on agricultural byproducts. Milk production levels and quality heavily depend on the nutritional intake of the animals. The application contains Feed database, products available in a country with their nutritional values and nutritional requirements of the milking cows by weight category and levels of production. The project aims to use the power of Large Language Models (LLM) and advanced ML techniques to assist farmers to create the best mix proportions based on available ingredients.
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Agriculture Digital Advisory
- Data Source: Technical country-based data.
- Publicly Available Data: Yes
- Technology/Platform: Open AI, Python.

- Project updates: Minimum Viable Product (MVP) created. The project was extended to optimize the models and improve the results.
- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger
- Lessons Learned: Teaching the Open AI algorithms for the calculation of the nutritional value of a mix is challenging.
- Contact information: Dioguen Zaridze (Dioguen.Zaridze@fao.org), Misael Sabbadini (Misael.Sabbadini@fao.org).

Project 5: Strengthening global access to agricultural information and knowledge (Hand-In-Hand Geospatial Platform)

- Project Description: Earth observation and geospatial IT play a critical role in the agricultural and related sectors. FAO has created the Hand-in-Hand Geospatial Platform that hosts data sourced from FAO, FAO partners in the public and private sectors including from across the UN, NGOs, government institutions, academia and space agencies. The platform has significantly increased the interoperability of FAO geospatial data as well as the cost-effective maintenance and sustainability of different FAO geospatial applications. Machine learning and AI are used in cutting edge quantitative remote sensing in agriculture; world class cloud computing capabilities; enabling unprecedented cross-sectoral knowledge discovery by integrating data on Soil, Land, Water, Climate, Fisheries, Livestock, Crops, Forestry, Trade, Social and Economics and much more.
- Project Type/Output: Dataset, Software tool
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2025
- Project Domain: Agriculture
- Data Source: FAO projects data and relevant data from external data providers, covering all sub-disciplines of agriculture from animal health to trade/markets.
- Publicly Available Data: Yes
- Technology/Platform: Google Cloud Platform; TerriaJS; GeoNetwork; CKAN
- Project Updates: more datasets added or updated, and new functions such as support for 5 languages, user profiles, single sign-on, now support predefined shapes, user styling, and GeoJSON annotations, and raster export. Data search functionalities were added using ML and AI capabilities.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 2 – Zero Hunger; SDG 13 – Climate Action.
- Links and Multimedia:
 - <https://www.fao.org/agroinformatics/en>
 - <https://youtu.be/KLqgcqQUuHo>
 - <https://data.apps.fao.org/>
- Lessons Learned: Data federation supported by standardization makes a huge difference in data sharing. Open data sharing enables various users to contribute and get good results to solve identified problems.
- Contact information: Karl Morteo (karl.morteo@fao.org); Zhongxin Chen (zhongxin.chen@fao.org).

Project 6: FAO Data Lab

- Project Description: FAO's Data Lab leverages advanced AI and data science to generate timely, actionable insights for evidence-based decision-making in agri-food systems. Using natural language processing, machine learning, and geospatial analytics, the

Data Lab extracts and synthesizes information from diverse sources, including scientific articles, legal and policy documents, news articles, and web content. Its innovations include AI-powered data-driven taxonomies, AI-assisted analytical reports, large-scale text classification, and natural language interfaces that translate user queries into structured database searches. The Data Lab also develops human-in-the-loop AI workflows, enabling seamless collaboration between machines and domain experts. Additional tools support real-time trend detection, text summarization, context retrieval, and geospatial methods to fill data gaps. By collaborating with FAO divisions, the Data Lab is establishing itself as a strategic enabler that transforms rich, varied institutional knowledge into accessible, policy-relevant evidence, thereby accelerating digital transformation in agriculture and food security.

- Project Type/Output: Software, Dataset
- Project Status: Ongoing Programme of work
- Project Start Year: 2019
- Project Domain: Agriculture, Trade, Food and Agricultural Statistics
- Data Source: Internet web scraping, literature mining, sentiment analysis, social media, Earth Observation satellite imagery, Government policies and legislations, unstructured documents
- Publicly Available Data: Yes
- Technology/Platform: R, Jupyter, Python, running on the Google Cloud Platform, OpenAI
- Project Updates: The Data Lab has increasingly focused on AI-driven methods for insight generation and evidence-based policymaking. New capabilities include large-scale text classification, human-in-the-loop AI workflows, AI-assisted analytical reporting, and natural language interfaces for querying data.
- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger; SDG 12 – Responsible Consumption and Production
- Links and Multimedia: <https://www.fao.org/datalab/en>
- Contact information: Carola Fabi (Carola.Fabi@fao.org); Christian Mongeau (Christian.Mongeau@fao.org).

Project 7: Detecting Fall armyworm through user submitted photos (FAMEWS)

- Project Description: Combines an online monitoring platform for mapping data collected by the FAMEWS mobile app whenever fields are scouted, or pheromone traps are checked for FAW. The platform provides a real-time situation overview with maps and analytics of FAW infestations at global, country and sub-country levels. The FAMEWS mobile app enables data collection of scouting data, which can be collected manually or through an image recognition model which provides immediate advice on FAW infestation. The global monitoring platform and the mobile app are designed to expand with the evolving needs of farmers, analysts and decision-makers. Both are accessible for free and are helping to reduce crop yield losses and minimize risk of further introduction and spread of FAW.
- Department/Division: Plant Production and Protection Division (NSP)
- Project Type/Output: Dataset
- Project Status: Completed
- Project Start Year: 2019
- Project End Year: 2024
- Project Domain: Agriculture
- Data Sources: Field scouting geo-referenced data, Pheromone traps data, Picture of FAW damage from the field.
- Link to Data:

- <https://app.powerbi.com/view?r=eyJrIjojMGQ3MzEwMTctMTIhOC00YzM3LTkxNTgtOWIxYjIwN2YyNjFlliwiidCI6IjE2M2FjNDY4LWFiYjgtNDRkMC04MWZkLWQ5ZGlxNWUzYWY5NjI5ImlmMiOjh9>
- <https://data.apps.fao.org/>
- Publicly Available Data: Yes
- Technology/Platform: Google AI, TensorFlow
- Related Sustainable Development Goals (SDGs): SDG 2 - Zero Hunger
- Partnership(s)/Collaborator(s):
 - Academia: Penn state University, USA (PlantVillage platform)
- Links and Multimedia:
 - www.fao.org/fall-armyworm/monitoring-tools/en/
 - <http://www.fao.org/3/CA1089EN/ca1089en.pdf>
 - [FAO-FAMEWS V3 - Apps on Google Play](#)
- Lessons Learned:
 - The most important challenge was promoting the adoption of the application and convincing FAO members to share their data.
 - The second challenge was the sustainability of the project as it is difficult to maintain and promote the system without any financial support.
 - The accuracy of the collected data was also another challenge as it is crowd sourced data.
- Contact information: Maged Elkahky (maged.elkahky@fao.org).

Project 8: WaPOR (Water Productivity through Open access of Remotely sensed derived data)

- Project Description: WaPOR is FAO's portal to monitor Water Productivity through Open-access of Remotely sensed derived data. It assists countries in monitoring water productivity, identifying water productivity gaps, proposing solutions to reduce these gaps and contributing to a sustainable increase of agricultural production. At the same time, it considers ecosystems and the equitable use of water resources, which should eventually lead to an overall reduction of water stress. The WaPOR portal provides open access to key land and water variables (including reference and actual evapotranspiration, biomass, land cover, precipitation) in near - real time at global level with a spatial resolution of 300 m. and, for Africa and the Near East and project countries at 100 m resolutions with pilot areas at 20 m.
- Project Type/Output: Dataset, Software tool
- Project Status: Ongoing
- Project Start Year: 2016
- Project End Year: 2025
- Project Domain: Agriculture
- Data Source: Geospatial Database with remote sensing data input. The database is publicly accessible, developed with open access data and open-source algorithms. It provides near real time information from 2009 to date.
- Publicly Available Data: Yes
- Technology/Platform: Google Cloud services, Python, Jupyter
- Project updates: the WaPOR data is now global.

- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger; SDG 6 – Clean Water and Sanitation; SDG 13 – Climate Action
- Partnership(s)/Collaborator(s):
 - Government: Ministry of Foreign Affairs of the Netherlands.
 - Private Sector: eLEAF and private sector entities in selected project countries.
 - Civil Society: not for profit organizations in several project countries.
 - Academia: IHE Delft.
 - Research: IWMI (CGIAR centre).
- Links and Multimedia:
 - <https://www.fao.org/in-action/remote-sensing-for-water-productivity/en/>
 - <https://wapor.apps.fao.org/> and <https://data.apps.fao.org/wapor/>
 - <https://www.youtube.com/watch?v=ZX7SOhk97hA>
 - https://www.youtube.com/watch?v=gA_t4HuFNhM
- Contact information: Livia Peiser (Livia.Peiser@fao.org), Jippe Hoogeveen (Jippe.Hoogeveen@fao.org) or wapor@fao.org.

Project 9: TELLUS

- Project Description: The Tellus project aims to harness the power of generative AI and FAO knowledge to create an interactive tool or “chatbot” named Tellus. The chatbot will transcend language barriers, communicate in non-technical speech, and help users of diverse backgrounds access insights and knowledge drawn from massive amounts of FAO data in all the agrifood sectors.
- Project Type/Output: Software, Dataset
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2026
- Project Domain: FAO technical knowledge
- Data Source: FAO Knowledge Repository
- Publicly Available Data: yes
- Technology/Platform: AWS
- Related Sustainable Development Goals (SDGs): SDG 2: Zero Hunger - The Tellus project aims to enhance agricultural knowledge and practices, which can contribute to food security and sustainable agriculture
- Links and Multimedia: <https://openknowledge.fao.org/home>
- Contact information: francesco.calderini@fao.org; anne.aubert@fao.org

Project 10: GEO-AI Challenge of 2024

- Project Description: The use of plastic mulch can enhance crop yields by reducing soil moisture loss and suppressing weed growth; however, it also contributes to significant environmental pollution. This project aims to address this issue by organizing a challenge, in collaboration with ITU, focused on identifying the extent of plastic-mulched fields using satellite imagery. Both satellite images and ground truth data were provided, and participants were tasked with developing AI solutions to map cropland extent in designated pilot regions. A total of 79 teams submitted their solutions, and three were awarded prizes based on overall classification accuracy, technical reports, and presentations.
- Project Type/Output: Dataset and open-source script

- Project Status: Finished
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Agriculture
- Data Source: Satellite data, ground truth data
- Publicly Available Data: Yes
- Technology/Platform: Google Cloud Platform; Python
- Related Sustainable Development Goals (SDGs): SDG 1 - No Poverty, SDG 2 - Zero Hunger
- Contact information: Pengyu Hao (pengyu.hao@fao.org); Zhongxin Chen (zhongxin.chen@fao.org)

Project 11: Livestock Environmental Assessment and Performance Partnership (LEAP) AI Navigator

- Project Description: The LEAP Navigator is an AI-powered tool developed by FAO to assist in understanding the guidelines and reports produced by the FAO LEAP Partnership. It aims to simplify complex environmental assessments related to livestock and promote sustainable practices. The tool provides technical answers about guidelines and reports, and general information regarding the FAO LEAP Partnership, its operations, and its members
- Project Type/Output: Software
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Livestock, Environment, Sustainability
- Data Source: FAO knowledge sources, guidelines and reports
- Publicly Available Data: Yes
- Technology/Platform: Microsoft Copilot
- Related Sustainable Development Goals (SDGs):
 - SDG 2: Zero Hunger - By promoting sustainable livestock practices, the LEAP Navigator contributes to food security and improved nutrition
 - SDG 13: Climate Action - The tool aids in climate action by providing guidelines and assessments that help reduce greenhouse gas emissions from livestock
 - SDG 15: Life on Land - It supports the sustainable use of terrestrial ecosystems, combats desertification, and halts biodiversity loss through better livestock management practices
- Links and Multimedia: <https://www.fao.org/partnerships/leap/leap-navigator/en>
- Contact information: francesco.calderini@fao.org, edoardo.desantis@fao.org

Project 12: AI Workmates for an Intelligent Office

- Project Description: The AI Workmates project aims to enhance FAO's operational efficiency by integrating advanced AI capabilities into the FAO Digital Workplace. This initiative focuses on leveraging generative AI for automating tasks, cost savings, greater consistency and accuracy in knowledge management and communication, and tailored solutions adaptable to various FAO offices. thereby allowing staff to concentrate on higher-value activities and improving overall productivity.
- The AI Workmates handle a range of tasks, from scheduling meetings and managing emails to providing real-time data insights and generating reports.

- Project Type/Output: Software
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2026
- Project Domain: Efficiency, Operations
- Data Source: FAO knowledge sources
- Publicly Available Data: no
- Technology/Platform: Microsoft Copilot for M365
- Related Sustainable Development Goals (SDGs): N/A
- Links and Multimedia:
- Contact information: francesco.calderini@fao.org

Project 13: Machine-learning based crop yield forecast model

- Project Description: This is a joint initiative between FAO, European Commission Joint Research Centre (JRC) and the University of Valencia, and builds on previous work by the JRC, with the intention to produce an operational machine-learning based yield forecast model at the national scale based on FAOSTAT data using Earth Observation, meteorological and socioeconomic predictors. The core objective is to strengthen the monitoring and analytical capacities of the Global Information and Early Warning System (GIEWS) of FAO, enhancing early warning capabilities and improving main staple crop production forecasts used in global commodity cereal balance sheets. The key outcome is to improve accessibility to early and reliable crop yield predictions.
- Project Type/Output: model, dataset
- Project Status: on-going
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Agriculture
- Data Source: Earth observation, agricultural statistics, land use data, crop calendars, economic, and conflict data
- Publicly Available Data: Yes
- Technology/Platform: python
- Partnership(s)/Collaborator(s): European Commission Joint Research Centre (JRC) and the University of Valencia
- Related Sustainable Development Goals (SDGs): SDG 1 (No Poverty), SDG 2 (Zero Hunger)
- Contact information: Jonathan Pound (jonathan.pound@fao.org), Mario Zappacosta (mario.zappacosta@fao.org)

2. Related Sustainable Development Goals

SDG 1, 2, 3, 6, 12, 13, 14

3. Relevant Links

<https://www.fao.org/home/en>

Contact Information

CSI-Director (CSI-Director@fao.org)

International Atomic Energy Agency



1. Description of Activities on AI

Project 1: AI for Atoms – the IAEA's knowledge-sharing platform for partnership on AI applications in the nuclear field

- Project Description: The IAEA provides interdisciplinary fora for professionals to discuss and foster collaboration on the use of AI in nuclear applications, science and technology and is committed to sharing knowledge and forging partnerships through its AI for Atoms platform. As part of this initiative, the IAEA cooperates with the International Telecommunication Union, the UN Interagency Working Group on AI and almost 40 other UN organizations to provide a solid foundation for accelerated sustainable development with AI. The AI for Atoms platform provides information on the IAEA's activities on AI, featuring all related initiatives, news, publications, and events.
- Project Status: Ongoing
- Project Domain: Agriculture, Environment, Energy, Health, and Nuclear Science, Technology and Applications
- Related Sustainable Development Goals (SDGs): SDG 2 – No Hunger; SDG 3 – Good Health and Well-Being; SDG 6 – Clean Water and Sanitation; SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation, and Infrastructure; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 17 – Partnerships for the Goals
- Links and Multimedia:
 - AI for Atoms: <https://nucleus-new.iaea.org/sites/ai4atoms/>
- Contact information: ai4atoms@iaea.org

Project 2: Publication on Artificial Intelligence in Medical Physics

- Project Description: The deployment of technologies based on AI in the medical use of radiation (i.e., radiation oncology, diagnostic imaging, nuclear medicine) and medical physics is expected to grow over the next 5–10 years. Clinically Qualified Medical Physicists (CQMP) are expected to play an important role in ensuring safe and effective clinical implementation of AI based tools. This publication launched in November 2023 frames the roles and responsibilities of CQMPs in the field of implementation and utilization of AI in the medical uses of radiation. The publication provides definitions, principles, examples, and associated risks of AI-based tools in medical physics. Furthermore, it provides principles and needs on academic education and continuing professional development for CQMPs.
- Project Status: Completed
- Project Domain: Health, Medical Physics
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being
- Links and Multimedia:

- INTERNATIONAL ATOMIC ENERGY AGENCY, Artificial Intelligence in Medical Physics, Training Course Series No. 83 (English), IAEA, Vienna (2023), <https://www.iaea.org/publications/15450/artificial-intelligence-in-medical-physics>
- INTERNATIONAL ATOMIC ENERGY AGENCY, Искусственный интеллект в медицинской физике, Training Course Series No. 83 (Russian), IAEA, Vienna (2025),

<https://www.iaea.org/ru/publications/15766/iskusstvennyy-intellekt-v-meditsinskoy-fizike>

- INTERNATIONAL ATOMIC ENERGY AGENCY, La inteligencia artificial en el ambito de la fisica medica, Training Course Series No. 83 (Spanish), IAEA, Vienna (2025),

<https://www.iaea.org/es/publications/15843/la-inteligencia-artificial-en-el-ambito-de-la-fisica-medica>

- Contact information: Mauro Carrara (M.Carrara@iaea.org), Egor Titovich (E.Titovich@iaea.org)

Project 3: e-learning module on Artificial Intelligence in Medical Physics

- Project Description: The deployment of technologies based on AI in the medical use of radiation (i.e., radiation oncology, diagnostic imaging, nuclear medicine) and medical physics is expected to grow over the next 5-10 years. Clinically Qualified Medical Physicists (CQMP) are expected to play an important role in ensuring safe and effective clinical implementation of AI based tools. This e-learning module builds upon the IAEA TCS-83 publication and compiles the lectures presented during the Joint ICTP-IAEA Workshop on Artificial Intelligence in Ionizing Radiation for Medical Physicists. It provides participants with a theoretical foundation in the key research areas and technological developments related to AI-based tools in radiation medicine.
- Project Status: Ongoing
- Project Domain: Health, Medical Physics
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being
- Links and Multimedia: the e-learning module will be published on CELP4 NET
- Contact information: Olivera Ciraj-Bjelac (o.ciraj-bjelac@iaea.org) and Egor Titovich,

Project 4: IAEA Human Health Series Publication on Clinical implementation of medical imaging-based artificial intelligence tools – Guidelines for medical physicists

- Project Description: AI has significant potential to impact processes in science and technology, including in human health. While bringing potential benefits to healthcare, the application of AI systems also introduces new challenges and potential risks. The clinical deployment of AI systems requires an adequate regulatory framework, and highly educated, well-trained health professionals to ensure safe, ethical and beneficial use of such systems.
- Clinically Qualified Medical Physicists (CQMP) are uniquely positioned health professionals to bridge the gap between complex AI algorithms systems and practical clinical applications. This publication will provide guidance for the implementation of imaging-based AI systems in clinical settings for CQMP. It will address i) identification of organizational needs and market research; ii) product selection and purchase; iii) installation and clinical deployment; iv) acceptance and commissioning; v) quality management; vi) clinical introduction and evaluation, and vii) decommissioning.
- Project Status: Ongoing
- Project Domain: Health, Medical Physics
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being
- Links and Multimedia: will be an IAEA HHS publication

- Contact information: Olivera Ciraj-Bjelac (o.ciraj-bjelac@iaea.org) and Egor Titovich,

Project 5: AI-assisted Contouring Skills in Radiotherapy

- **Project Description:** The IAEA is conducting a Coordinated Research Project on The Potential of E-learning Interventions for AI-assisted Contouring Skills in Radiotherapy (CRP E33046). The objective of the project is to investigate changes in inter-observer variation and bias after e-learning in delineation guidelines and the use of deep learning-based auto-segmentation of organs-at-risk in head-and-neck cancer. In recent years, AI-algorithms, namely deep learning-based algorithms, have improved auto-segmentation drastically. It is believed that AI-tools lower variation and increase the accuracy and compliance of plans, which improves the chance of cure. AI-tools may also make care more cost effective by reducing the human capacity required, which is important in our overstretched health systems. A wide palette of commercial deep learning-based auto-segmentation solutions are emerging with the promise of leveraging the aforementioned benefits. The selection and contouring of target volumes and organs-at-risk has become a key step in modern radiation oncology. Concepts and terms for definition of gross tumour volume, clinical target volume and organs at risk have been continuously evolving (e.g., through International Commission on Radiation Units and Measurements (ICRU) reports 50, 62, 78, 83) and have become widely disseminated and accepted by the European and international radiation oncology community. 102 participants from 23 IAEA Member States from 24 radiotherapy centers have participated in the project.
- **Project Status:** Completed
- **Project Domain:** Health
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-Being
- **Contact information:** Lisbeth Cordero Mendez (l.cordero-mendez@iaea.org), Egor Titovich (E.Titovich@iaea.org)

Project 6: AI to Assess Climate Impact on Global Lakes

- **Project Description:** Global warming is considered a major threat to Earth's lakes water budgets and quality. However, flow regulation, over-exploitation, lack of hydrological data, and disparate evaluation methods hamper comparative global estimates of lake vulnerability to evaporation. The stable isotope composition of 1,257 global lakes was analyzed using Artificial Intelligence techniques. It was found that in most of the lakes, this depends on precipitation and groundwater recharge subsequently altered by catchment and lake evaporation processes. Isotope mass-balance modelling shows that ca. 20 % of water inflow in global lakes is lost through evaporation and ca. 10 % of lakes in arid and temperate zones experience extreme evaporative losses >40 % of the total inflow. Precipitation amount, limpidity, wind speed, relative humidity, and solar radiation are predominant controls on lake isotope composition and evaporation, regardless of the climatic zone. The promotion of systematic global isotopic monitoring of Earth's lakes provides a direct and comparative approach to detect the impacts of climatic and catchment-scale changes on water-balance and evaporation trends. This project aims to establish a global network of isotopes in lakes (GNIL) to improve our AI-based assessments. Current activities include the design of the database, the selection of variables and the assessment of global coverage. Stable water isotope assays provide a low-cost effective tool to study lake-catchment changes with regards to sample collection and analysis. Additionally, stable isotope data from lakes is fully comparative globally, thereby providing a competitive advantage under the current scenario of different international methods and approaches that are not easy to compare in time and scale and which result in the current lack of the comparable data for lakes and catchments.
- **Project Status:** Ongoing
- **Project Domain:** Environment, Water Resource Management

- Data Source: Satellite open-source data on climate, hydrology and lakes parameters and stable water isotopes data in global lakes.
- Link to data: The data can be obtained by request at <https://nucleus-new.iaea.org/sites/ihn/Pages/GNIR.aspx>.
- Technology/Platform: R programming, Isotope Hydrology Collaboration Platform
- Related Sustainable Development Goals (SDGs): SDG 6 – Clean Water and Sanitation, SDG 13 – Climate Action
- Contact information: Yuliya Vystavna (Y.Vystavna@iaea.org), Astrid Harjung (A.Harjung@iaea.org)

Project 7: AI for Water and Environment

- Project Description: This project aims to promote and enable the use of isotopic techniques with AI tools for better management of water and environmental resources, as well as adaptation to climate change worldwide. Recognizing that with the increasing availability of data from satellites, unmanned airborne vehicles and sensor networks, there is a myriad of data available to couple and explore in conjunction with the IAEA's global isotope databases.

The project is a platform for scientists working with AI tools at the interface of isotope hydrology, water resources protection and management. This facilitates sharing of experiences in the use of machine and deep learning for hydrological and environmental modelling, challenges, and research opportunities to move forward. The project aims to find synergies between isotope techniques, high-frequency or remote sensing, open-source resources, and AI to show how these can help inform policies to mitigate the world's water problems. Besides exchanging knowledge on current developments in the area that feed into research activities of the isotope hydrology section, the project foresees submission of a review paper to a hydrological journal that showcases different applications of AI in isotope hydrology. This paper intends to explore what role machine learning and big data can play in the advancement of isotope hydrology.

- Project Status: Ongoing
- Project Domain: Environment
- Technology/Platform: *R programming*
- Related Sustainable Development Goals (SDGs) SDG 6 – Clean Water and Sanitation, SDG 13 – Climate Action
- Contact information: Astrid Harjung (A.Harjung@iaea.org), Yuliya Vystavna (Y.Vystavna@iaea.org)

Project 8: Exploring the potential of AI and Machine Learning to better support Member States in fighting food fraud

Project Description: Food fraud, involving adulteration, substitution, or mislabeling for economic gain, threatens consumer trust, health, and the food industry. The IAEA's Food Safety and Control Laboratory (FSCL) applies nuclear and related techniques for food authenticity verification using chemometrics - data-driven statistical methods that classify samples based on chemical "fingerprints." To enhance model accuracy and predictive power, the IAEA's Food Safety Laboratory is exploring AI and Machine Learning (ML) tools.

The project aims to: (a) evaluate ML tools for food safety and authenticity applications; (b) assess the potential of ML and Deep Learning (DL) to improve chemometric models (e.g., PCA, OPLS-DA, HCA, DD-SIMCA); and (c) identify low-/no-cost ML approaches suitable for transfer to Member States via open-access, user-friendly platforms.

In the first phase, a benchmarking study using an existing dataset from the Myanmar Paw San rice project tested various ML algorithms; Logistic Regression, KNN, SVM, Decision Tree, Random Forest, Gradient Boost, and Neural Networks. The Decision Tree Classifier significantly improved accuracy in predicting rice origin, offering a cost-efficient and simple method with minimal sample prep.

Next steps include identifying additional AI/ML tools emphasizing low-/no-code, scalable, and accessible platforms. Several free frameworks—both local and cloud-based—were assessed, including solutions from Microsoft, Amazon, Google, and Snowflake. In March 2025, project findings were shared with CARICOM Member State scientists.

- Project Status: Ongoing
- Project Domain: Food and Agriculture
- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger; SDG 3 – Good Health and Well-Being
- Contact information: Christina Vlachou (C.Vlachou@iaea.org), Rina Ahmed (R.Ahmed@iaea.org)

Project 9: Zoonotic Disease Integrated Action (ZODIAC) Respiratory Disease Phenotype Observatory

- Project Description: Medical imaging plays a crucial role in diagnosing and monitoring infectious diseases, and the COVID-19 pandemic has highlighted the critical role of chest imaging, including computed tomography (CT) scans and baseline X ray analysis, in the early stages of the disease. Medical imaging technologies, such as computed tomography (CT), can detect lesions smaller than 0.5 mm and assess activity without the need for a biopsy. This enables the identification of specific disease characteristics in each patient. However, the analysis of the complex images generated by these technologies can be challenging to the naked eye. Radiomics, a method for extracting large-scale imaging data from medical imaging studies like CT and X ray scans, utilizes data-characterization algorithms to identify disease findings that are not visible to the naked eye. This approach can be complemented by AI, ML, and deep learning to identify patterns of lung involvement in COVID-19 patients. The IAEA has initiated a project with the aim of identifying specific characteristics associated with different virus variants and determining if there are any epidemiological and clinical differences in the development of disease complications and specific medical imaging manifestations in several respiratory infectious diseases.

By 2026 The ZODIAC Respiratory Disease Phenotype Observatory will be collecting a continuous stream of imaging- and associated clinical data of patients with respiratory disease from around the world.

- Project Status: Ongoing
- Project Domain: Human Health, Zoonotic Diseases, Pandemic Prevention
- Links and Multimedia:
 - ZODIAC webpage: <https://nucleus.iaea.org/sites/zodiac/SitePages/Home.aspx>
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being
- Contact information: Enrique Estrada Lobato (E.Estrada-Lobato@iaea.org)

Project 10: AI to Support Remediation of Radioactive Contamination in Agriculture

- Project Description: Remediation of radioactive contamination of farmland requires accurate soil data and exchangeable potassium (K_{ex}) plays a major role. As potassium competes with radiocaesium in soil-to-plant transfer, it can help reduce the crop uptake of

this major fallout radionuclide. Information on potassium content in the soil is essential for optimizing remediation of radioactive contamination. Through the international research network under the IAEA funded Coordinated Research Project D1.50.19 on “Remediation of Radioactive Contaminated Agricultural Land”, the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture investigated how to predict exchangeable potassium in soil through Mid-Infrared Spectroscopy and Artificial Intelligence. In our study, which was finalized this year and is expected to be published soon, we show how this can be now achieved using a Convolutional Neural Network (CNN) model trained on a large Mid-Infrared (MIR) soil spectral library (40000 samples K_{ex} determined with 1M NH₄OAc, pH 7), compiled by the National Soil Survey Center of the United States Department of Agriculture. Using Partial Least Squares Regression as a baseline, we found that our implemented CNN leads to a significantly higher prediction performance of K_{ex} when a large amount of data is available (10000), increasing the coefficient of determination from 0.64 to 0.79, and reducing the Mean Absolute Percentage Error from 135% to 31%. Furthermore, in order to provide end-users with required interpretive keys, we implemented the GradientShap algorithm to identify the spectral regions considered important by the model for predicting K_{ex} . Used in the context of the implemented CNN on various Soil Taxonomy Orders, it allowed (i) to relate the important spectral features to domain knowledge and (ii) to demonstrate that including all Soil Taxonomy Orders in CNN-based modeling is beneficial as spectral features learned can be reused across different, sometimes underrepresented soil orders.

- In early 2023, KU Leuven and Curtin universities in collaboration with the Joint FAO/IAEA Centre, launched a PhD project to explore the integration of AI, soil spectroscopy, and remote sensing in K_{ex} characterization at both local and global scales. This research, which seeks to bridge soil science and deep learning, focuses on three key questions:
 - The feasibility of using Mid-Infrared spectroscopy (MIRS) and deep learning with large soil spectral libraries to accurately predict K_{ex} for local-scale remediation.
 - Assessing Near-Infrared spectroscopy's (NIRS) potential for high-throughput K_{ex} prediction, considering its lower cost and portability compared to MIRS.
 - Exploring global-scale K_{ex} prediction using remote sensing data and geographical soil-forming factors in advanced modeling approaches.
- Project Status: Ongoing
- Project Domain: Food and Agriculture
- Related Sustainable Development Goals (SDGs): SDG 2 – Zero Hunger; SDG 3 – Good Health and Well-Being
- Contact information: Simon Kelly (S.Kelly@iaea.org), Gerd Dercon (G.Dercon@iaea.org)

Project 11: AI to Assess and Use Marine Environmental Radioactivity Data

- Project Description: Levels of radionuclides in the marine environment can be influenced by a range of manmade inputs (e.g., nuclear accidents and authorized discharges from nuclear fuel cycle facilities), underlying biogeochemical conditions, and other dynamic such as climate change and sea level rise. On the other hand, the presence of radionuclides – both natural and artificial – in the marine environment offers a wealth of possibilities for the application of radiotracers for quantification of climate and ocean change. The IAEA Marine Radioactivity Information System (MARIS) has been maintained for many years to provide data underpinning related monitoring and research activities. MARIS is currently being redeveloped in order to offer improved support and possibilities to its user community, including for AI and ML applications. The planned improvements include adoption of Open Science principles, data management according to FAIR and/or GEO principles, improved API access and adoption of netCDF and related technologies, with all associated improvements in metadata provision and opening of access to a rich range of tools for accessing, analyzing and visualizing data. The overall aim is to promote data re-use and to facilitate Open Science. Specifically for AI a range of possibilities are

foreseen to incorporate marine modelling for prediction of *inter alia* transport, dispersion and settling rates for future and sparsely observed scenarios; visualization of radionuclide levels in four dimensions; time series analysis; improved radiotracer applications and reanalyzes using combined datasets.

- Project Status: Ongoing
- Project Domain: Marine Environment, Climate and Ocean Change, Emergency Preparedness and Response, Radiological Environmental Impact Assessment
- Data Source: IAEA Marine Radioactivity Information System <https://maris.iaea.org/>
- Related Sustainable Development Goals (SDGs): SDG 14 - Life Below Water; SDG 13- Climate Action
- Contact information: Paul McGinnity (P.Mc-ginnity@iaea.org)

Project 12: AI for Nuclear Data Development and Evaluation

- Project Description: Explore, test, and deploy AI methods to improve and speed-up nuclear data development and evaluation. The IAEA coordinates and contributes to nuclear data development projects, e.g., within the International Nuclear Data Evaluation Network (INDEN) and the Neutron Data Standards project, and provides databases with atomic, molecular and nuclear data to support developments in various nuclear-related domains, such as fusion energy research, nuclear medicine, nuclear astrophysics and fundamental nuclear science.

Concerning nuclear data development, progress on AI-related activities is shared among collaborators within the various projects and networks. Additionally, open-source evaluation packages in R and Python are developed at IAEA that leverage machine learning frameworks, such as TensorFlow, for advancing evaluation methodology to enhance the quality of the nuclear data provided. These products are shared on the IAEA GitHub account for making developments more inclusive, traceable and reproducible, and also to lower the entrance barrier to new contributors. Methodological progress is documented in reports and journal publications.

Regarding the dissemination of databases, new APIs, formats, webservices and software tools are developed at IAEA to facilitate the access to nuclear data and to enhance the quality assurance procedures. Especially, programmatic access to nuclear data is anticipated to facilitate the application of machine learning for automatic data classification, outlier detection and estimation of nuclear quantities. Furthermore, the IAEA is involved in international projects and expert groups, such as OECD-NEA WPEC SG54, concerned with the development of experimental database suited for ML applications.

- Project Status: Ongoing
- Project Domain: Physics, Nuclear Data
- Technology/Platform: R, Python, TensorFlow / GitHub, Variational Autoencoders
- Link and Multimedia:
 - IAEA's GitHub repository: <https://github.com/IAEA-NDS>
- Related Sustainable Development Goals (SDGs): SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation, and Infrastructure
- Contact information: nds.contact-point@iaea.org

Project 13: AI for gamma spectrometry

- Project Description: Gamma spectrometry is a ubiquitous tool when it comes to elemental and isotopic analysis of unknown samples. The gamma energy spectra collected are analyzed by either commercial or open-source software packages with the aim to identify peaks that belong to energies of particular isotopes and then quantify the presence thereof in the sample of interest. In collaboration with partners from the University of

Lisboa, Portugal, an effort is made to explore how efficient AI can be in the identification of peaks in gamma energy spectra in comparison to existing commercial and open-source software packages. The first results are very encouraging, as the identification matched or surpassed conventional software performance. This work has been published in the Journal of Radiation Physics and Chemistry, [10.1016/j.radphyschem.2025.112692](https://doi.org/10.1016/j.radphyschem.2025.112692). The IAEA contributed a high number of gamma spectra from various radioactive sources that were used for training the algorithm, taken at the IAEA Nuclear Science and Instrumentation Laboratory.

- Project Status: Ongoing
- Project Domain: Agriculture, Environment, Nuclear Science, Technology and Applications, Radiation Monitoring
- Related Sustainable Development: SDG 9 – Industry, Innovation, and Infrastructure
- Contact information: Milan Matos (M.Matos@iaea.org)

Project 14: Machine learning for detector signal discrimination

Project Description: Mixed radiation fields present a challenge for radiation detectors, when the latter are sensitive to more than one particle species. A typical scenario is the discrimination of neutrons from gamma signals by the detector. Misidentification of particles can skew quantitative results. There are conventional approaches to this problem via analogue signal processing but when the counting rates get high, discrimination begins to work poorly. In collaboration with our ICTP partners, an effort was made to assess how machine learning on FPGA devices can help discriminate neutrons from gammas in a detector type called a CLYC scintillator. The first results show a lot of discriminatory potential up to eight pile-up pulses and have been published in IEEE Transactions in Nuclear Science, 10.1109/TNS.2024.3498321. The IAEA contributed with measurements taken in the IAEA Neutron Science Facility of the Nuclear Science and Instrumentation Laboratory. The next steps include the implementation of real-time discrimination and the expansion of the algorithm to other detector types.

- Project Status: Ongoing
- Project Domain: Nuclear Science, Technology and Applications, Radiation Monitoring
- Related Sustainable Development: SDG 9 – Industry, Innovation, and Infrastructure
- Contact information: Ivan Morales Argueta (I.Morales-Argueta@iaea.org)

Project 15: AI for Fusion Energy

Project Description: The IAEA has launched a 5-years Coordinated Research Project (CRP) on AI for Accelerating Fusion R&D (2022–2027) with the objective of accelerating fusion R&D with machine learning and AI, through the creation of a platform and cross-community network for innovation and partnership. The project features four work packages. These are:

- **Real-time Magnetic Fusion Energy (MFE) System Behaviour Prediction, Identification & Optimization Using ML/AI Methods:** To accelerate fusion R&D by establishing a multi-machine database of experimental and simulation MFE data (adhering to FAIR/Open Science principles) for ML/AI-driven applications, and through increased access to knowledge and information of ML/AI methods for MFE.
- **Inertial Fusion Energy (IFE) Physics Understanding through Simulation, Theory and Experiment Using ML/AI Methods:** To accelerate fusion R&D by establishing a database of experimental and simulation IFE data (adhering to FAIR/Open Science

principles) for ML/AI-driven applications, and through increased access to knowledge and information of ML/AI methods for IFE.

- **Feasibility of Magnetic Fusion and Inertial Fusion Image Database:** To determine the feasibility of an image database from MFE and IFE data (adhering to FAIR/Open Science principles) for ML/AI-driven applications with potential to accelerate fusion R&D.
- **Community Engagement & Workforce Development:** To accelerate community engagement and capacity building, as well as create and provide with access to knowledge and information in the area of ML/AI methods applied to fusion R&D.

In 2024, activities under the Project focused on addressing the longstanding need for improved data sharing and AI integration in fusion energy research. While data remains a critical enabler for applying AI and ML to fusion R&D, current practices suffer from inefficiencies, security concerns, and scalability challenges. To overcome these challenges, the IAEA is advancing efforts to enhance data connectivity and standardization across fusion institutions by developing a secure, public-facing online Fusion Data Lake. It will serve as a foundational infrastructure to support secure, scalable, and modular data exchange, community integration, and eventual AI applications. Built on the Snowflake platform, it will feature three key services: a searchable Data Catalogue of international fusion data; a Federated Database providing unified access to multiple data sources; and Centralized Storage for medium-term collaborative use.

- Project Status: Ongoing
- Project Domain: Fusion Energy
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation and Infrastructure
- Links and Multimedia:
 - *AI for Fusion:* <https://nucleus.iaea.org/sites/ai4atoms/ai4fusion>
 - *AI for Fusion Energy Challenge:* <https://aiforgood.itu.int/about-ai-for-good/ai-for-fusion-energy-challenge>
- Contact information: Matteo Barbarino (M.Barbarino@iaea.org)

Project 16: International Network on Innovation to Support Operating Nuclear Power Plants (ISOP)

- Project Description: The IAEA International Network on Innovation to Support Operating Nuclear Power Plants (ISOP), established in 2019, aims to facilitate the engagement on the deployment of near-term innovation in the nuclear power sector from diverse expertise, both internal and external to the IAEA. This project features several work packages, delivering unique outputs. These are:
 - **Creation and coordination of the ISOP Working Group on AI** as the first pilot working group organized under the auspices of the ISOP Network. The AI working group was established in July 2022. The objective of the AI working group is to strengthen awareness and engagement in activities linked to recent and near-term deployment of AI in the nuclear power sector. The ISOP AI WG serves as an effective platform to share these ideas and put forth the vision for possible activities in the area of near-term deployable AI for the nuclear power sector. As of the end of May 2025, the group comprised 115 international experts, from 24 Member States representing nuclear utilities, regulators, technical support organizations, national laboratories and academia.
 - **Nuclear Energy Series Publication on Deployment of Artificial Intelligence Solutions for the Nuclear Power Industry:** Considerations and Guidance: The goal of the document is to provide overall guidance to the nuclear industry on what aspects

should be addressed when developing and deploying AI solutions in the nuclear industry to help ensure its performance is adequate while maintaining safe and reliable operation based on the current knowledge, up to date best practices, experiences, benefits and challenges in the life cycle of NPPs. The work is coordinated within the ISOP AI working group described above.

- **ISOP Innovation Awards** aim to highlight and recognize innovative use cases within the nuclear power industry. The awards focus on various categories, including AI/ML/LLM, Advanced Manufacturing, Robotics & Drones and other significant innovations.
- **Innovation in Action: Real-World Applications in Nuclear Power Webinar Series** showcases innovative use cases from the International Network on ISOP Innovation Awards
- Project Status: Ongoing
- Project Domain: Energy
- Related Sustainable Development Goals (SDGs): SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation, and Infrastructure; SDG 13 – Climate Action
- Links and Multimedia:
 - *IAEA International Network on Innovation to Support Operating Nuclear Power Plants (ISOP)*: <https://nucleus.iaea.org/sites/connect/ISOPpublic/SitePages/Home.aspx>
- Contact information: Nelly Ngoy Kubelwa (N.Ngoy-kubelwa@iaea.org)

Project 17: AI to Accelerate the Technological Development of Evolutionary and Innovative Reactor Designs

- Project Description: This project features the following deliverables:
 - IAEA Collaborating Centre on Artificial Intelligence for Nuclear Power, Center for Science of Information at Purdue University, established in November 2023. The Collaborating Centre supports programmatic activities that foster innovation, knowledge sharing, and the deployment of AI solutions in reactor design and operation. It also develops approaches for validating AI concepts to ensure the safe, reliable, and efficient use of AI in nuclear power plants. Additionally, the Centre focuses on capacity building through training and educational courses, equipping both national and international professionals with the skills needed to apply AI in areas such as software development, accident management, and safety analysis.
 - Joint IAEA-ICTP Workshop on Artificial Intelligence and Machine Learning in Advancing Nuclear Engineering from 10 to 14 March 2025 in Trieste with 9 lecturers and 45 students.
- Project Status: Ongoing
- Project Domain: Energy
- Related Sustainable Development Goals (SDGs): SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation, and Infrastructure; SDG 13 – Climate Action
- Links and Multimedia:
 - *IAEA Collaborating Centre on Artificial Intelligence in Nuclear Power*: <https://nucleus.iaea.org/sites/CollaboratingCentre/SitePages/Purdue%20University.aspx>
 - *IAEA Joint IAEA-ICTP Workshop on Artificial Intelligence and Machine Learning in Advancing Nuclear Engineering*: <https://indico.ictp.it/event/10826>
- Contact information: Alexei Miassoedov (a.miassoedov@iaea.org)

Project 18: Safety Implications of the Use of AI in Nuclear Installations

Project Description: The purpose of the project is to collect current experiences in Member States on the use and application of AI techniques to support different aspects of the design, safety assessment and operation of nuclear installations; and to understand potential safety benefits and challenges related to safety demonstration and justification of AI applications. The experiences will be collected by conducting technical meetings, workshops and other events in the subject area for nuclear power plants, research reactors and nuclear fuel cycle facilities. These events include:

- a) IAEA Technical Meeting on Safety Considerations in the Use of Artificial Intelligence in Nuclear Power Plants with a Focus on Human Factors Engineering and Instrumentation and Control Systems
 - o The meeting will be from 10 to 14 November 2025 at Daejeon, Republic of Korea.
 - o The purpose of the event is to provide a platform for Member States to advance discussions on the safety implications of the use of artificial intelligence in the nuclear field, with a focus on the design of nuclear power plants. The event will aim to compile relevant information for future updates to Human Factors Engineering in the Design of Nuclear Power Plants (IAEA Safety Standards Series No. SSG-51) and Design of Instrumentation and Control Systems for Nuclear Power Plants (IAEA Safety Standards Series No. SSG-39).
- b) IAEA Workshop on Safety Considerations in Use of Advanced Technologies at Nuclear Fuel Cycle Facilities
 - o The workshop was hosted at National Nuclear Laboratories, UK from 2 – 6 October 2023 and attracted participants from 11 Member States.
- c) IAEA Technical Meeting on Safety and Operational Considerations in the Use of Advanced Technologies at Research Reactors
 - o The meeting was held from 30 September – 4 October 2024 at IAEA Headquarters in Vienna, and attracted 26 participants from 15 Member States. The following conclusions related to use of artificial intelligence in research reactors were made based on the sharing of experience and discussions in the meeting:
 1. Artificial intelligence has many significant current and near-future use cases, such as real-time monitoring (prognostic and diagnostic), data analysis, and assistance with safety decision making. Deployment of artificial intelligence represents a difficult challenge for regulatory activities due to the difficulty in qualifying hardware and software, auditing input and output data, independent assessments, et cetera.
 2. Use of artificial intelligence for neutron flux optimization in research reactors can provide significant improvements in reactor utilization and efficiency in the use of fuel. Extension of these techniques may yield similar improvements for safety applications, such as optimizing power peaking factors.
- d) Side event on “Safety considerations in use of advanced and innovative technology in research reactors” at the International Conference on Research Reactors: Achievements, Experience and the Way to a Sustainable Future – to be held in 2024.

The side event provided an overview of the safety considerations in the use of advanced technology for research reactors. About 60 participants representing research reactor operating organizations and regulatory bodies attended the event. The event was styled as a moderated debate with the panellists responding to questions from the event participants. The presentations covered a number of topics related to deployment of advanced technology in research reactors as well as a regulatory perspective on the challenges associated with use of artificial intelligence.

The discussions and insights from the work will be captured in IAEA TECDOC titled “Safety and Security Implications of the Use of Artificial Intelligence in Nuclear Installations” by end of 2025.

- Project Status: Ongoing
- Project Domain: Nuclear Safety
- Related Sustainable Development Goals (SDGs): SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation, and Infrastructure; SDG 13 – Climate Action
- Contact information: Yun Goo Kim (Y.G.Kim@iaea.org), Lakshman Valiveti (L.Valiveti@iaea.org)

Project 19: AI Activities for Nuclear Security

Project Description: This project collects the following research projects, events, and activities related to nuclear security:

Ongoing:

- CRP on Enhancing Computer Security of Artificial Intelligence Applications for Nuclear Technologies:
 - Investigating and establishing systematic approaches and technological capabilities for the secure development, deployment, and operation of AI/ML in nuclear technologies, focusing on key vulnerabilities such as data manipulation, algorithm transparency, and training data integrity.
 - Enabling research and innovation in AI security for nuclear applications, including the development of AI-enabled security assessment tools and training frameworks to bolster Member States' capabilities in implementing and maintaining secure AI systems and to foster international cooperation and knowledge sharing.
- Coordinated Research Project J02021 on Computer Security for Small Modular Reactors (SMRs):
 - Investigating cyber-secure frameworks that can integrate with operational modes of SMRs, employing cutting-edge technologies, including AI and ML.
 - Building on the foundations of previous work, the project is conducting further research into AI-based cyber threat detection and response systems. These systems will be capable of continuous monitoring and analysis of instrumentation and control data to bolster security measures.
- Coordinated Research Project on Enhancing Computer Security for Radiation Detection Systems:
 - This project is focused on enhancing computer security for radiation detection systems. The project has been exploring methods for analyzing communication patterns in radiation detection equipment. This allows for the identification and flagging of anomalous behaviour, thereby enhancing the integrity of the devices and network infrastructure.

Complete:

- Under the Coordinated Research Program J02014: Advancing the Maintenance, Repair, and Calibration of Radiation Detection Equipment
 - Project MOR – 23720 from Morocco utilized multiple image recognition algorithms to automatically localize and record license plate information of vehicles passing through the Radiation Portal Monitors at the entrance of their nuclear facility.

- Project THA - 26785 from Thailand utilized image recognition algorithms to develop a wireless adapter for Personal Radiation Devices (PRDs). This adapter now allows older PRD models to communicate detector information wirelessly to facilitate and enhance complex nuclear security operations.

Forthcoming:

- Technical Meeting on the Application of Artificial Intelligence for Nuclear Security (20-24 October 2025, HQ, Vienna)
 - The objective of this event is to encourage interaction among experts from all over the world to promote the use of artificial intelligence and machine learning for nuclear security activities. It aims to enhance understanding and capacity building in the development and integration of AI/ML tools for nuclear security.
 - The results of the event will be summarized in a chair report that will provide a catalogue of potential future activities and cooperation in the areas of artificial intelligence and machine learning for nuclear security coordinated by the IAEA.
 - The event will enhance the cooperation and information exchange among Member States in the areas of artificial intelligence and machine learning for nuclear security.
- NSNS Data Strategy Project

The AI Data Strategy project for Nuclear Security aims to enhance Division of Nuclear Security support to Member States based on their request through intelligent data management, analytics, and machine learning. This project will use existing data, datasets and information collected over the last decades.
- Development and Testing of Detection Equipment Algorithms:
 - This project is planned to investigate enhanced operability to improve the detection of materials outside of regulatory control. This includes the development of sophisticated identification algorithms capable of detecting shielded materials, as well as improving analysis and pattern recognition using spectroscopic data, contributing to a more robust detection capability.
- Project Status: Ongoing
- Project Domain: Nuclear Security, Computer Security, Infrastructure, Data, Radiation Monitoring
- Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation, and Infrastructure
- Links and Multimedia:
 - IAEA NUSEC for WG on AI/NS materials: <https://nusec.iaea.org/portal/> (also <https://www.iaea.org/resources/databases/nusec>)
 - Contact information: Mitchell Hewes (M.Hewes@iaea.org) and Shaju [Chittilappilly](mailto:Chittilappilly@iaea.org) (S.G.Chittilappilly@iaea.org)

Project 20: Investigating the Use of Generative AI for Public Communication during Emergency

- Project Description: This project explores the dual role of generative artificial intelligence (AI) as both a risk and a tool in emergency public communication. Through the IAEA Coordinated Research Project (CRP) "Effective Public Emergency Communication in a Misinformation Environment" and the upcoming 2024-2025 activities, the initiative examines how synthetic, persuasive, and multilingual AI-generated content—across video, audio, image, and text—can disrupt public trust and protective decision-making during emergencies. The project also investigates how AI-enabled tools may support emergency responders in countering dis/misinformation through improved detection, multilingual communication, and public engagement strategies.

- **IAEA Technical Meeting on Public Communication in Emergencies:** Tackling Misinformation and Retaining Public Trust in Disruptive Information Environments: Scheduled to take place from 23 to 27 June 2025 at the IAEA Headquarters in Vienna, this meeting will convene experts from Member States, research institutions, and digital technology providers to explore both the risks and potential applications of AI in emergency public communication. The meeting will gather operational knowledge and research findings to inform the development of a dedicated IAEA TECDOC on mitigating emergency response disruption caused by generative AI.
 - **Preparatory Workshop and Expert Consultancies:** In 2023–2024, expert consultancies and a preparatory workshop were conducted to develop a discussion paper and draft agenda for the 2025 Technical Meeting. These activities engaged leading researchers from academia, national laboratories, and crisis communication professionals, forming the foundation for subsequent guidance and recommendations.
 - **Follow-on Outputs:** The project will culminate in the publication of a TECDOC synthesizing the outcomes of the meeting and expert input. This guidance will provide emergency response organizations and Member States with actionable recommendations on adapting communication strategies in the evolving AI landscape.
- Project Status: Ongoing
 - Project Domain: Emergency Preparedness and Response
 - Technology/Platform: Open
 - Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure and SDG 17 – Partnerships for the Goals
 - Contact information: Nayana Jayarajan (N.Jayarajan@iaea.org)

Project 21: Neural Artificial Intelligence for Document Indexing and Analysis (NADIA)

- Project Description: AI is used to categorize and add index terms to each record in the IAEA's International Nuclear Information System (INIS), to enrich searches and add structure to the repository.
- Project Status: Ongoing
- Project Domain: Nuclear Information Collection and Curation
- Data Source: Full-text and metadata of knowledge products provided by Member States and IAEA Publications to INIS in all areas of nuclear science and technology. This is supplemented with metadata of scientific articles harvested from publishers.
- Technology/Platform: Python is the main programming language. Natural Language Processing (NLP) routines and tasks are employed along with a customized BERT-based model, called distilBERT, which is used for categorizing records into 48 subject categories and 11,550 of the most frequently used thematic descriptors. To incorporate indexing for several thousands of less frequently used descriptors, as well as any descriptors that will henceforth be added periodically, semantic matching in record abstracts is used based on custom spaCy pipelines, which takes into account semantic relationships between descriptor terms. The solution is designed to utilize standard CPU hardware, making it very cost-efficient to operate. The project will furthermore employ quantization to further reduce the model's hardware footprint and increase prediction performance.
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 9 – Industry, Innovation, and Infrastructure
- Links and Multimedia:
 - INIS Repository: <https://inis.iaea.org/search/>
- Contact information: Brian Bales (B.Bales@iaea.org)

Project 22: AI-Assisted Processing of Safeguards-relevant Information for Nuclear Verification

- **Project Description:** The following projects leverage unstructured data and latest AI/ML technologies to further increase effectiveness and efficiency in processing information declared by States and information available to the IAEA from open sources, including satellite imagery:
 - **AI-Assisted Review of Open-Source Information:** Modern Natural Language Processing (NLP) algorithms and large language models (LLMs) assist in the discovery and review of relevant open source information, including but not limited to news articles and scientific publications. After applying the AI-based prioritization, approximately 90% of safeguards-relevant content can be found within the first 10% of items, which significantly improves efficiency in reviewing open-source information. A classification model categorizes documents by nuclear fuel cycle technologies, supporting consistency checks between State declarations and IAEA-validated information. AI also provides translation and transcription of multimedia content. These capabilities are integrated into the internally developed Open-Source Information System (OSIS), which assists analysts while maintaining human accountability and decision making.
 - **AI-Assisted Review of State Declarations:** The continuous review of State declarations requires extensive manual work due to diverse formats and varying levels of detail. An internally developed Intelligent Document Processing tool significantly improves efficiency by supporting data entry from hardcopy tables submitted by States, while ensuring reliable results through human verification. This was achieved by generating synthetic training data to train tailored ML models, and designing an innovative verification tool and process.

A separate ongoing project applies NLP algorithms to unstructured text data, helping IAEA staff identify new entities, research activities, or collaborations between States with safeguards relevance. By comparing historical data with other safeguards-relevant information, the IAEA aims to identify both declared and potentially undeclared locations and research activities.
 - **AI-Assisted Review of Satellite Imagery:** To assess the correctness and completeness of State declarations, the verification process includes collecting and reviewing high volumes of satellite imagery. To reduce manual work, the IAEA is exploring modern AI approaches to assist in reviewing this imagery and verifying consistency with state-declared information. Innovative AI-based methods can detect building footprints and highlight important infrastructure changes, including construction, building extensions, and demolition—helping to prioritize human resources and direct attention to areas requiring further analysis.
- **Project Status:** Ongoing
- **Project Domain:** Safeguards Verification
- **Data Source:** The text-based applications utilize internal documents, documents available in the International Nuclear Information System (INIS) repository, as well as Internet-based sources including feeds for open source information and technology publications. For satellite imagery, optical and synthetic aperture radar imagery from public and commercial sources.
- **Technology/Platform:** Python is used as the main programming language. NLP tasks are based on domain-adapted BERT-like models, as well as offline available Large Language Models, such as Llama3.1 and Mistral. Deep learning applications for satellite imagery use domain-adapted convolutional neural networks (e.g., U-Net, Attention U-Net, Fast RCNN, YOLO) and attention/transformer-based neural networks. For model training and inference GPU hardware resources and a ML platform are available.

- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 16 – Peace, Justice and Strong Institutions; SDG 17 – Partnerships for the Goals
- Contact information: Paul Schneeweiss (P.Schneeweiss@iaea.org)

Project 23: Deep Learning for Safeguards Surveillance

- **Project Description:** As part of its routine safeguards activities, the IAEA applies containment and surveillance measures in nuclear facilities. The review of surveillance data is time-consuming and cognitively demanding. Implementing a DL decision support system for inspectors reviewing surveillance data can allow for efficiency gains due to significantly improved detection accuracy and fewer false alarms than classical algorithmic methods.

In this project, the IAEA uses DL for critical safeguards activities: verification of spent fuel. A DL object detection algorithm is used to train, identify and localize safeguards relevant activities and objects in the surveillance data with a high level of accuracy. A DL system automatically and continuously flags events in remotely transmitted surveillance data so that it is immediately available to IAEA inspectors when they start their surveillance review, allowing them to verify declarations made by nuclear facility operators. Using DL for spent fuel verification is relevant to the IAEA due to steadily growing inventories of such material. Additional algorithms are used to detect the presence of and read canister ID numbers and to detect the direction of spent fuel cask movements in facilities. In addition to verifying State declarations more efficiently, the IAEA is also exploring the use of DL for the detection of abnormal events – i.e., events not falling into usual activities – thereby assisting in the detection of undeclared activities.

The IAEA DL system for greater surveillance review efficiency is currently computing results for over 25 cameras in four nuclear facilities in two Member States. Inspectors have acceptance tested DL results as part of their surveillance review, and they have reported significant time savings for reviewing surveillance data. Further, accuracy has been statistically evaluated at over 90%, far higher than classical algorithmic methods used by inspectors. Initial trained DL models have been authorized for Safeguards use and additional models are in the process of finalizing authorization for IAEA use in 2025 and efforts will continue to expand the DL system for other use cases and facilities.

- **Project Status:** Ongoing
- **Project Domain:** Safeguards Verification
- **Data Source:** Deep learning models are trained on images containing safeguards-relevant activities using data from past inspector surveillance reviews. Current focus is on movements of spent fuel.
- **Technology/Platform:** Python, Pytorch, Docker containers, Linux servers, GPUs, Kubernetes.
 - YOLOv7 algorithm for object detection and localization: <https://github.com/WongKinYiu/yolov7>
 - YOLOv8 algorithm for object detection and localization: <https://github.com/autogyro/yolo-v8>
 - Deep Text Recognition Benchmark (DTRB) for optical character recognition (OCR): [DTRB](#)
 - Character-Region Awareness for Text Detection (CRAFT) for character localization: [CRAFT](#)
 - Contrastive Language-Image Pre-training (CLIP) for image encoding/vectorization: [CLIP](#)
 - Support Vector Machines (SVMs) for binary image classification

- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 16 – Peace, Justice and Strong Institutions; SDG 17 – Partnerships for the Goals
- Contact information: Alex Pollack (A.D.Pollack@iaea.org), Maikael Thomas (M.Thomas@iaea.org), Melvin John M.John@iaea.org

2. Related Sustainable Development Goals

SDGs 2, 3, 4, 6, 7, 9, 13, 15, 16, 17

3. Relevant Links

<https://www.iaea.org/>

<https://nucleus.iaea.org/sites/ai4atoms>

Contact Information: Ashraf Sayed (S.A.H.Ashraf@iaea.org), Matteo Barbarino (m.barbarino@iaea.org)

International Fund for Agricultural Development



1. Description of Activities on AI

Project 1: Harvest AI Portal

- **Project Description:**

Harvest is IFAD's internal AI portal with IFAD-specific modules for core operations. Harvest brings custom AI solutions to IFAD for the IFAD context, designed and developed with subject matter experts across the organization. Harvest modules, powered by AI and related technologies, combine advanced tools into simple, intuitive, and user-friendly interfaces that address specific workflows. Current modules include:

 - **SECAP-Scan:** Analyse the SECAP Compliance of an IFAD project concept from a Project Concept Note (PCN)
 - **Mainstreaming-Scan:** Analyse the Mainstreaming Themes of an IFAD project design from a Project Design Report (PDR)
 - **Insta-PR:** Generate a draft of a President's Report and export it to the official corporate template
 - **Insta-Points:** Generate clear, concise, and customized Talking Points from a collection of PDF files
 - **File-Chat:** Upload, explore, review, and analyse collections of PDF files with ease

Harvest will grow over time with more modules added based on organizational demand and technology availability, supporting functional and thematic areas such as Quality Assurance, People Operations, and Social Inclusion.
- **Department/Division:** Corporate Services Department; Information and Communications Technology Division
- **Project Type/Output:** Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2025
- **Data Source:** TBD
- **Technology/Platform:** Python, JavaScript, Microsoft Azure, Hugging Face, NVIDIA, OpenAI
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Contact Information:** Ricardo Rendon Cepeda (r.rendonceda@ifad.org)

Project 2: Blossom AI Portal

- **Project Description:** Blossom is IFAD's internal AI portal with general-purpose modules for simple daily tasks. With Blossom, IFAD staff have access to a wide range of common AI technologies through a single portal. Blossom modules, powered by AI and related technologies, are designed to make advanced tools easy to use in day-to-day work with simple, intuitive, and user-friendly interfaces.

Current modules include: Text Generation, Text Reasoning, Icon Generation, Summarisation, Text Translation, Transcription, and Word Cloud Generation. Blossom will grow over time with more modules added based on organizational demand and technology availability, such as: Table Extraction, Image Extraction, OCR Conversion, Document Translation, and Document Comparison.

- **Department/Division:** Corporate Services Department; Information and Communications Technology Division
- **Project Type/Output:** Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2025
- **Data Source:** Self-uploaded data
- **Technology/Platform:** Python, JavaScript, Microsoft Azure, Hugging Face, NVIDIA, OpenAI, FLUX, Qwen, DeepSeek, Llama
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 3: Omnidata Data Platform

- **Project Description:** Omnidata is IFAD's internal platform for data and analytics, including technologies such as Artificial Intelligence, Machine Learning, and Geographic Information Systems for advanced analytics. Omnidata empowers IFAD's workforce to do more with data and AI, developing data dashboards and AI-augmented solutions for use cases across many thematic areas such as biodiversity, south-south triangular cooperation, crop production, and more. Through the platform, a strong community of practitioners are developing new skills and augmenting the way they work at IFAD across all departments and divisions.

Through Omnidata, IFAD management and staff are working together side by side to pilot and release solutions in a phased manner, practically demonstrating that data and AI provide value not only in efficiency, but also in developing new products and insights with the potential to transform ways of working. Omnidata is both a platform with robust technical infrastructure, as well as a growing community of practitioners across the organization being upskilled with new competencies required for the continuous delivery of data and AI-augmented solutions for IFAD. The benefit of Omnidata's platform and community approach is not to solely focus on one or two use cases, but on democratizing technology and building capacity to address many complex problems where data and AI can provide value.

- **Department/Division:** Corporate Services Department; Information and Communications Technology Division
- **Project Type/Output:** Internal platform and community for data and analytics
- **Project Status:** Ongoing
- **Project Start Year:** 2020
- **Data Source:** Internal data from corporate systems; External data on development, agriculture, socioeconomics, demographics, etc.; Geospatial data on land use, biota, climate, environment, etc.; Unstructured data from reports and other documents.
- **Technology/Platform:** Oracle Business Intelligence, Microsoft Azure, Azure Data Lake, Azure AI Studios, Azure ML Studios, Microsoft Fabric, Microsoft Power BI, GeoNode, GeoServer, QGIS, Python, OpenAI
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Links and Multimedia:**
 - o <https://customers.microsoft.com/en-us/story/1729190323007055712-ifad-nonprofit-azure-openai-service>

- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 4: Garden AI Benchmark

- **Project Description:** AI models, including Large Language Models (LLMs), are becoming essential building blocks for many digital solutions and services. As these technologies advance, choosing the right model is key to ensuring reliable and effective results. The Garden AI Benchmark is a collection of IFAD-specific tests for AI models, with automation scripts for testing models at scale and an interactive dashboard to evaluate results in a clear and easy-to-understand manner. The benchmark allows for the assessment of different models across several important areas for the IFAD context, using standardized evaluation metrics to measure both accuracy and ability to handle different tasks. The benchmark helps IFAD make better-informed model selection choices for specific purposes across a variety of solutions and use cases. Current model tests include:
 - **Choice Selection:** Tests to check how well a model answers multiple-choice questions about IFAD based on different types of content (e.g., text, tables, maps, images) and thematic or functional areas (e.g., development, finance, agriculture, sustainability).
 - **Language Translation:** Tests to check a model's ability to translate IFAD documents between IFAD's official languages – Arabic, English, French, and Spanish. The quality of the translations is evaluated by comparing AI-generated results and manual translations, using four different methods for calculating text similarity.
 - **Information Retrieval:** Also called "Needle-in-a-Haystack" tests, these tests check whether a model can find very specific information (i.e., "needle") within large amounts of text (i.e., "haystack"). Tests are designed for different document sizes where specific information can be difficult to locate.
 - **Information Ordering:** Tests to evaluate a model's ability to rank reference chunks based on their relevance to a specific question – a key capability for AI systems combine search and intelligent response generation (i.e., retrieval-augmented generation).
- **Department/Division:** Corporate Services Department; Information and Communications Technology Division
- **Project Type/Output:** Report, Dataset, Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2025
- **Data Source:** IFAD public reports; IFAD public website
- **Technology/Platform:** Python, Microsoft Azure, Microsoft Fabric, Microsoft Power BI, NVIDIA, Hugging Face, OpenAI, Llama, Qwen, DeepSeek, Phi, Gemma, Mistral, Falcon, EuroLLM, DeepL, BGE, MixedBread
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 5: Corporate Portfolio Stocktake on Food Systems

- **Project Description:** IFAD's corporate portfolio stocktake provides a comprehensive overview of the performance and quality of the organization's operations and results, paying special attention to food systems, sustainability, and scaling up in 2023. To better understand IFAD's operating context and enhance the analysis of the global portfolio, interactive data dashboards enhanced by AI technologies were developed to evaluate the portfolio in terms of relevance and alignment on four sub-components of food systems: production, livelihoods, climate change, and resilience.
Using Large Language Models (LLMs), AI translation tools, and other natural language processing (NLP) techniques, statements from national pathways, summit dialogues, and country strategies were processed, transformed, ranked, and classified according to IFAD-specific and multi-dimensional food system taxonomies. Results were aggregated,

visualized, and analyzed in an interactive data dashboard that combines quantitative and qualitative data for a comprehensive overview and detailed examination of IFAD's operating context.

- **Department/Division:** Corporate Services Department; Information and Communications Technology Division; Office of Development Effectiveness
- **Project Type/Output:** Dataset, Software tool
- **Project Status:** Completed
- **Project Start Year:** 2023
- **Project End Year:** 2023
- **Project Domain:** Agriculture, Environment, Poverty
- **Data Source:** Summit Dialogues and National Pathways from the UN Food Systems Coordination Hub; Country Strategic Opportunities Programmes (COSOPs) and Country Strategy Notes (CSNs) from IFAD
- **Technology/Platform:** Microsoft Azure, Microsoft Fabric, Microsoft Power BI, Python, OpenAI
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land, SDG 16 – Peace, Justice, and Strong Institutions
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 6: Global Portfolio Analysis of Fragile Situations

- **Project Description:** The global portfolio analysis of fragile situations presents a new way of using AI technologies to analyze IFAD's operating context as captured in project design reports. The project uses AI technologies, IFAD's definition of fragility, and four sub-components of fragility to evaluate descriptions of IFAD's operating context – including logframe indicators, theory of change narratives, SECAP review notes, integrated project risk matrices, and environmental, social, and climate management plans – in order to produce AI-generated fragile situation scores and AI-extracted fragile situation justifications to provide deeper insights into IFAD's portfolio.

The objective of the ongoing retrospective analysis is to:

- Understand the level of fragility of different project contexts, in line with IFAD's fragility definition; and,
- Understand to what extent the projects respond to the specific fragility context and address relevant drivers of fragility through project design, including risks and mitigation measures.

The methodological approach is divided into five complementary parts:

- Context analysis
- Comparative analysis
- Identification of critical drivers
- Risk coherence analysis
- Gap analysis
- **Department/Division:** Corporate Services Department; Information and Communications Technology Division; Department for Country Operations; Fragility Unit
- **Project Type/Output:** Report, Dataset, Software tool
- **Project Status:** Ongoing

- **Project Start Year:** 2023
- **Project Domain:** Agriculture, Environment, Gender, Health, Human Rights, Justice, Poverty
 - **Data Source:** IFAD project documents; IFAD project data; World Bank Group Classification of Fragile and Conflict-Affected Situations; OECD States of Fragility
 - **Technology/Platform:** Microsoft Azure, Microsoft Fabric, Microsoft Power BI, Python, OpenAI, NVIDIA, Hugging Face, Llama
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, SDG 5 – Gender Equality, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land, SDG 16 – Peace, Justice, and Strong Institutions
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 7: Thematic Portfolio Stocktake on Fisheries & Aquaculture

- **Project Description:** Small-scale fisheries and aquaculture are crucial to inclusive and sustainable rural transformation, contributing to better nutrition and livelihoods while conserving natural environments. IFAD-supported projects provide access to finance, value chains, and market infrastructure to poor fishing communities, enabling them to earn more from high-quality sustainably caught or farmed fish. To support stocktaking efforts related to cataloguing Fisheries & Aquaculture projects across the IFAD portfolio, AI technologies were used to analyze IFAD project documents for information on relevant activities and target groups. By designing prompts with clear definitions, taxonomies, conditions, and objectives, Large Language Models (LLMs) deployed within a scalable AI system classified the contents of IFAD project documents to determine relevance to Fisheries & Aquaculture, allowing for a more systematic, comprehensive, reliable, and accurate assessment of this thematic area across the IFAD portfolio.
- **Department/Division:** Corporate Services Department; Information and Communications Technology Division; Office of Technical Delivery; Sustainable Production, Markets, and Institutions Division
- **Project Type/Output:** Dataset
- **Project Status:** Completed
- **Project Start Year:** 2025
- **Project Domain:** 2025
- **Data Source:** IFAD project documents; IFAD project data
- **Technology/Platform:** Python, NVIDIA, Llama
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, SDG 5 – Gender Equality, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action, SDG 14 – Life Below Water, SDG 15 – Life on Land, SDG 16 – Peace, Justice, and Strong Institutions
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 8: Sustainability Action Plan Repository and Chatbot

- **Project Description:** IFAD's Sustainability Action Plan aims to provide operational and technical actions to strengthen IFAD's performance related to sustainability of benefits

at the project level through an approach that commonly supports IFAD's portfolio. Due to the diversity of IFAD projects and the numerous factors that may impact project sustainability, the action plan does not aim to address each one individually, but focuses on providing the necessary building blocks to support widespread knowledge, behaviors, and capacity to improve project sustainability.

As interventions to enhance sustainability of project benefits are context specific, a key output of the action plan is an AI-enhanced repository on Sustainability. The repository offers a rich, interactive, and visual interface for country teams to explore IFAD's resources on sustainability of benefits. Users are able to extract information from curated publications on sustainability, according to the criteria and dimensions detailed in the action plan. The repository allows country teams to develop a tailored approach to increasing sustainability and developing sound exit strategies for better ownership in a wide variety of contexts. The repository consists of how-to-do notes, analysis, and useful resources developed by IFAD, as well as tools and guidance from external sources. These resources are processed with text-centric AI and automation tools that extract key concepts and generate focused summaries and data visualizations.

The repository is also connected to a Generative AI (GenAI) chatbot interface, which allows users to ask any questions about sustainability. The chatbot searches through the repository contents and provides a referenced answer to the question using Large Language Models (LLMs). This solution is implemented as a Retrieval Augmented Generation (RAG) search engine with a natural language interface.

- **Department/Division:** Corporate Services Department; Information and Communications Technology Division; Office of Development Effectiveness
- **Project Type/Output:** Software tool
- **Project Status:** Completed
- **Project Start Year:** 2022
- **Project End Year:** 2024
- **Project Domain:** Agriculture, Environment, Gender, Health, Poverty, Weather
- **Data Source:** Publicly available reports, documents, how-to-do notes, analysis, frameworks, and other resources on sustainability across social, environmental, financial, technical, and institutional dimensions.
- **Technology/Platform:** Microsoft Azure, Microsoft Fabric, Microsoft Power BI, Python, JavaScript, OpenAI
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Contact Information:** Ricardo Rendon Cepeda (r.rendoncepeda@ifad.org)

Project 9: Mapping food systems national pathways and summit dialogues with AI and ML techniques

- **Project Description:** The analysis utilizes a supervised learning approach to classify sentences within the national pathways and summit dialogues documents. This method allows for the identification of prevalent topics across various dimensions, including food system drivers, components, and outcomes. The taxonomy for classification is derived from the HLPE Food System Framework, ensuring a comprehensive and relevant analytical lens.

This analysis was carried out on specific sub-regions to primarily test the potential of this technology for policy learning. The main aim was to uncover insights from publicly available national pathways for food system agenda achievement through artificial intelligence (AI) and machine learning (ML) techniques. Several key lessons were learned. First and foremost, the project underscored the importance of leveraging advanced technologies like AI and ML to dissect and understand complex programmatic documents across diverse socio-economic contexts. The use of supervised learning to classify statements within the national pathways illuminated the distinct priorities and actions of different countries, offering nuanced insights into their food system agendas.

A critical takeaway was the recognition of the heterogeneity in food system priorities across the specific sub-regions analysed and countries' income classifications. This diversity necessitates tailored approaches in policy formulation and implementation to address the unique challenges and opportunities within each context. Furthermore, the project highlighted the significant potential of AI and ML in enhancing policy analysis and decision-making processes. By applying the HLPE Food System Framework for classification, the project demonstrated how structured taxonomies could provide a coherent framework for analysing and interpreting complex data.

Lastly, the analysis revealed the challenges and limitations of data availability and quality, particularly in countries where these documents are not available. This gap underscores the need for continued efforts to promote data generation and sharing across countries to support more comprehensive and informed policy analyses.

- **Department/Division:** Department for Country Operations; Near East, North Africa, and Europe Division; Corporate Services Department; Information and Communications Technology Division
- **Project Type/Output:** Report, Dataset, Seminar/meeting
- **Project Status:** Completed
- **Project Start Year:** 2023
- **Project End Year:** 2023
- **Project Domain:** Agriculture, Food Systems
- **Data Source:** Official public documents; Food systems country-level National Pathways; National Food Systems Dialogue reports
- **Technology/Platform:** Microsoft Azure, Microsoft Fabric, Microsoft Power BI, Python, OpenAI, Azure ML
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2– Zero Hunger, SDG 3 – Good Health and Well-Being, SDG 5 – Gender Equality, SDG 6 – Clean Water and Sanitation, SDG 8 – Decent Work and Economic Growth, SDG 10 – Reduced Inequalities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Action
- **Contact Information:** Alessandra Garbero (a.garbero@ifad.org)

Project 10: Athena: Leveraging Artificial Intelligence and Big Data for IFAD 2.0

- **Project Description:** The ATHENA project seeks to unlock the potential of artificial intelligence and machine learning to accelerate knowledge generation and strengthen data-driven decision-making in IFAD. The project developed an AI toolbox with three main objectives: (1) systemize IFAD's portfolio to facilitate results measurement and institutional learning, (2) enhance knowledge management through deployment of AI/ML in IFAD ICT systems to make project results and lessons learned accessible and actionable for staff, and (3) predict performance and impact of IFAD projects to inform decision-making, optimize targeting, and maximize impact. The (AI) "toolbox" contains:
 - **AI-based Intervention Dashboard:** a searchable dashboard that classifies IFAD's investment portfolio by project features, including interventions, outcomes, animal and plant products, among others using natural language processing (NLP);
 - **Lessons Learned Web App:** an application to search for relevant "lessons learned" as reported in previous projects to inform new design reports;
 - **Trend analyses of strategic themes:** historical evidence of activities related to strategic topics, such as SDGs, food systems and ICT4D, to understand IFAD's support and allocation of resources to different activities historically;
 - **Project performance prediction model:** a framework for ex-ante prediction of project performance based on a set of project features to facilitate better design and early action throughout project implementation;

- **Project impact prediction model:** a framework to predict the probability of a positive impact of IFAD-supported interventions using impact evaluation data;
- **Project targeting optimization model:** framework and tool to identify beneficiary features to maximize project impact; and,
- **Covid-19 impact prediction model:** model to predict impact of the pandemic in IFAD's beneficiary countries.

The tools developed by the project fill a gap within IFAD and the field by aiding and simplifying IFAD reporting, especially for more complex and data hungry thematic areas (i.e. food systems); leveraging under-utilized data resources, namely textual data buried in project reports; and enabling ex-ante data driven design and decision-making by closing the gap between policymakers and project evaluation and by translating data and project insights into actionable metrics. Together, these tools not only enhance IFAD's knowledge management but also embed learning and data-driven decision-making into existing project design and implementation processes

- **Department/Division:** Department for Country Operations
- **Project Type/Output:** Report, Academic paper, Dataset, Seminar/meeting, Software tool
- **Project Status:** Completed
- **Project Start Year:** 2019
- **Project End Year:** 2023
- **Project Domain:** Agriculture, Poverty
- **Data Source:** IFAD portfolio data; IFAD report data; IFAD performance ratings data; External open-source data on country-specific risk factors and characteristics from World Bank (WDI), IMF (WEO), and other sources; Household survey data from IFAD impact assessments; Google mobility data; Google Trends data, John Hopkins Coronavirus Resource Center data; INFORM Covid- 19 risk data.
- **Publicly Available Data:** No
- **Technology/Platform:** Python, AWS, Elasticsearch, Kibana, R, R Shiny, Stata
- **Related Sustainable Development Goals (SDGs):** All SDGs
- **Partnership(s)/Collaborator(s):** Several collaborators from various academic institutions contributed to the project over the two years of its implementation. Please refer to the acknowledgments sections in the final reports.
- **Links and Multimedia:**
 - <https://www.ifad.org/en/web/knowledge/-/publication/accelerating-knowledge-generation-for-data-driven-decision-making>
 - <https://www.ifad.org/en/web/knowledge/-/leveraging-artificial-intelligence-and-big-data-for-ifad-2.0-phase-2>
- **Contact Information:** Alessandra Garbero (a.garbero@ifad.org)

Project 11: Farmer Chat

- **Project Description:** With the objective to support improvements to farm productivity and climate change adaptation, IFAD is partnering with Digital Green, a not-for-profit organization, to pilot 'Farmer.Chat' an AI-enabled digital assistant for field extension agents and develop a 'proof of concept (POC)' as well as lessons from implementation within IFAD-supported projects in Nigeria.

Through the project, Extension Agents have been supported to utilize this digital assistant through a smartphone application, called 'Farmer.Chat' to provide customised advisory to smallholders in local language'. Farmer.Chat Extension agents can triage farm-level needs with local language text and voice inputs and text and audio responses to facilitate the efficient delivery of customized advisory recommendations to small-scale farmers.

The implementation has taken a phased approach, with Digital Green collaborating with IFAD's country offices and local partners to scope and deliver POC and pilot initiatives. The main objective of the pilot is to test out the technology capabilities to support farmers and local agents in the value chains that are supported by IFAD projects and factor in the natural language processing as a value addition to support inclusivity and ensure relevance to farmers' unique needs. The implementation and operational model for the digital assistant focuses on enhancing advisory services as a base for replication in future IFAD-supported projects.

- **Department/Division:** Office of Technical Delivery; Sustainable Production, Markets, and Institutions Division
- **Project Type/Output:** Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Project End Year:** 2025
- **Project Domain:** Agriculture
- **Data Source:** Information typically comes from research reports of international agencies such as CGIAR, FAO, national agricultural research and extension systems, university research reports, soils and meteorological data sources, some video content, etc. However, the important thing to note is that any/all content included in the content corpus is first scrutinized and attributed to a legitimate, credible source and then is included ONLY after the designated Content Manager (e.g. Ministry of Agriculture, National Agricultural Extension and Research Liaison Service, etc.) has approved its inclusion.
- **Technology/Platform:** OpenAI, MSR, Meta AI, Google, Telegram
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 13 – Climate Action
- **Partnership(s)/Collaborator(s):** Government of Nigeria; Digital Green; Agricultural Extension and Research Liaison Service, Nigeria
- **Contact Information:** Brenda Gunde (b.gunde@ifad.org)

Project 12: SMARTFARM: A data and digital technology driven farm and farm management solution for climate resilience

- **Project Description:** The SMARTFARM project objective is to enable smallholder farmers in Ethiopia and Rwanda to adapt to climate change and improve their crop productivity and food and nutrition security through the delivery of real-time weather and climate data, and through farm advisory services. The project is funded by the GEF Challenge Fund for Adaptation Innovation, with IFAD as the main executing agency and CropIn Technologies as the lead implementing agency.

SMARTFARM will promote the use of real-time weather and climate data, along with data-driven farm advisory services available to smallholder farmers. SMARTFARM leverages digital technologies such as Artificial Intelligence, Machine Learning, Remote Sensing, & Mobile Telecommunication to offer data-driven agriculture digital services, weather and climate advisory (WACS), and data-driven agriculture advisory (DDAS) on innovative and collaborative digital platforms (i.e., cloud, web-based, and mobile applications). SMARTFARM combines digital technologies and services, big data analysis, and a beneficiary-focused approach to help smallholder farmers (SHFs).

Together, this approach will increase the adoption of climate-resilient agriculture practices and enhance rural communities' resilience to climate change. Digitalization of farm location data will be used to provide context-specific responses based on prediction data using advanced analytical techniques to generate advisories.

The target group is made up of 130,000 SHFs, including women SHFs, (100,000 in Ethiopia and 30,000 in Rwanda), cumulative over a two-year period, with the help of

2,000 village/agroentrepreneurs. The project will be implemented over two years and will have the following components:

- **Component 1.** Deployment, adoption and scale up of SMARTFARM to increase the climate adaptation and resilience of 130,000 SHFs over a 2-year period, including women SHFs, with the help of 2,000 village/agroentrepreneurs.
- **Component 2.** Capacity-building of selected farmers', producers', and rural organizations and institutions, 2,000 village/agroentrepreneurs (of whom at least 25 per cent will be women) and implementation partners for knowledge and asset transfer.
- **Component 3.** Creation of partnerships, knowledge and tools to promote engagement among off-takers, buyers and institutions for credit access and market linkages.
- **Department/Division:** Office of Technical Delivery; Sustainable Production, Markets, and Institutions Division
- **Project Type/Output:** Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Project End Year:** 2026
- **Project Domain:** Agriculture, Environment, Poverty
- **Data Source:** IBM weather data; Landsat; World Bank Climate Change Knowledge Portal; World Meteorological Organization; Insitu data and farm level data collected through village-based agents.
- **Technology/Platform:** CropIn Technologies; Microsoft Azure
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 13 – Climate Action
- **Partnership(s)/Collaborator(s):** Government of Ethiopia; Government of Rwanda; CropIn Technologies; GEF
- **Links and Multimedia:**
 - <https://www.cropin.com/invest-in-gef-ifad-climate-adaptation-project-in-africa>
- **Contact Information:** Brenda Gunde (b.gunde@ifad.org)

Project 13: Voice Companion for Farmers by Viamo

- **Project Description:** AI-powered Voice Companion for agriculture extension, delivering instant, localized climate-smart agriculture information in local languages. Viamo has been scaled up in Tanzania with support from WFP and is currently being used by the IFAD country team in Pakistan on the National Poverty Graduation Programme (NPGP). In Pakistan, the programme utilizes interactive voice response (IVR), SMS messaging, and digital surveys to engage and empower beneficiaries with critical knowledge to improve well-being and resilience.
- **Department/Division:** Office of Development Effectiveness; Innovation Unit
- **Project Type/Output:** Startup funded by IFAD in the context of the M4D Joint Open Innovation Challenge (2023)
- **Project Status:** Ongoing
- **Project Domain:** Agriculture, Environment
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger
- **Partnership(s)/Collaborator(s):** Viamo
- **Links and Multimedia:**
 - <https://viamo.io/>

- <https://challenges.moonshots4dev.org/en/challenges/challenge2023/pages/about-us?lang=en>
- <https://www.ifad.org/en/web/latest/-/m4d-joint-open-innovation-challenge-pitch-event>
- <https://innovation.wfp.org/project/viamo-voice-companion>
- **Contact Information:** Gladys H. Morales (g.moralesguevara@ifad.org)

Project 14: Farmer Lifeline Technologies

- **Project Description:** Farmer Lifeline's AI devices empower smallholder farmers by detecting and predicting crop pests and pathogens, promoting climate-smart practices for enhanced food security.
- **Department/Division:** Office of Development Effectiveness; Innovation Unit
- **Project Type/Output:** Startup funded by IFAD in the context of the M4D Joint Open Innovation Challenge (2023)
- **Project Status:** Ongoing
- **Project Domain:** Agriculture, Environment
 - **Technology/Platform:** TensorFlow, Python, Django
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger
- **Partnership(s)/Collaborator(s):** Farmer Lifeline Technologies
- **Links and Multimedia:**
 - <https://farmerlifeline.co.ke/>
 - <https://challenges.moonshots4dev.org/en/challenges/challenge2023/pages/about-us?lang=en>
 - <https://www.ifad.org/en/web/latest/-/m4d-joint-open-innovation-challenge-pitch-event>
 - <https://raeng.org.uk/news/africa-prize-winner-2024>
- **Contact Information:** Gladys H. Morales (g.moralesguevara@ifad.org)

Project 15: Agpreneur

- **Project Description:** Agpreneur is an all-in-one Agri-fintech Platform providing tailored financing, dynamic education, predictive input demands, and optimized market interactions for African farmers.
- **Department/Division:** Office of Development Effectiveness; Innovation Unit
- **Project Type/Output:** Startup funded by IFAD in the context of the M4D Joint Open Innovation Challenge (2023)
- **Project Status:** Ongoing
- **Project Domain:** Agriculture, Environment
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty, SDG 2 – Zero Hunger
- **Partnership(s)/Collaborator(s):** Agpreneur
- **Links and Multimedia:**
 - <https://agpreneur.com.ng/>
 - <https://challenges.moonshots4dev.org/en/challenges/challenge2023/pages/about-us?lang=en>

- o <https://www.ifad.org/en/web/latest/-/m4d-joint-open-innovation-challenge-pitch-event>

- **Contact Information:** Gladys H. Morales (g.moralesguevara@ifad.org)

2. Related Sustainable Development Goals

SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

3. Relevant Links

<https://www.ifad.org/en/>

International Labour Organisation



1. Description of Activities on AI

Project 1: Algorithmic management in the logistics and healthcare sectors

- **Project Description:** This research explores how the algorithmic management practices that are often associated with platform work, such as rating systems, surveillance and control through tracking devices, online logging of work hours, the use of diverse forms of employment, etc. are being increasingly utilised by traditional companies in the logistics and healthcare sectors, thus leading to 'platformisation' of work. The project will look at the impact of such practices on work organisation, efficiency and working conditions in European (France, Italy) and non-European (India, South Africa) countries. It will also explore how the data that is collected through these practices is used by the firms, and who has control and rights over such data. The objective of this research is to understand the extent of the penetration of these practices in the logistics and healthcare sectors in both European and non-European countries, whether the experiences are similar or different, and the role of governments and social partners (workers' and employers' organisations) in addressing some of the challenges due to the rapid technological transformations. It will analyse whether the algorithmic management practices in the logistics and healthcare sectors leads to improved autonomy, flexibility, and working conditions for the workers. It will examine how the existing social and human rights standards are enforced in a context in which key employer functions are carried out by algorithms and are thus opaque. It will explore what public policies are required to address some of the challenges relating to worker surveillance, working conditions, thus ensuring greater transparency in the algorithms.
- **Department/Division:** Research Department
- **Project Type/Output:** Report/Academic paper/Seminar/meeting
- **Project Status:** Ongoing
- **Project Start Year:** January 2021
- **Project End Year:** December 2022
- **Project Domain:** Health, Human Rights, Logistics, Improving working conditions, Reducing inequalities
- **Data Source:** The project will adopt a case study approach and collect data from both workers and managers in enterprises in the logistics and healthcare sector in India and South Africa (non-European countries) and France and Italy (European countries).
- **Publicly available data:** No
- **Related Sustainable Development Goals (SDGs):** SDG 8 – Decent Work and Economic Growth; SDG 10 – Reduced Inequalities
- **Partnership(s)/Collaborator(s):**
 - **Academia:** In the process of deciding the academic partners in India and South Africa. This project is in collaboration with the Joint Research Centre, Seville of the European Commission.

- Relevant Links and Multimedia: <https://www.ilo.org/employment/Whatwedo/Projects/building-partnerships-on-the-future-of-work/lang-en/index.htm>
- Contact information: Uma Rani (amara@ilo.org)

Project 2: Research on worker privacy and personal data protect

- Project Description: The ILO conducted a comparative legal study on the protection of the personal data of workers and their right to privacy in the light of the ILO Code of Practice on the protection of workers' personal data. It also conducted a preliminary analysis of the issues raised in relation to digital monitoring of workers and algorithmic management as they have grown in importance with the development of the digital economy and teleworking, including during the COVID-19 crisis. The outcome of this research will contribute to the preparation of the Tripartite Meeting of Experts on decent work in the platform economy to be held in 2022.
- Department/Division: WORKQUALITY
- Project Type/Output: Other: Ongoing research
- Project Status: Ongoing
- Project Start Year: 2021
- Project Domain (field): Human Rights, Justice, Labour
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Nuno Meira Simoes Cunha, cunhan@ilo.org

Project 3: Competency Profiling App (funded through the PROSPECTS partnership)

- Project Description: The number of international migrants and refugees is growing rapidly. Between 2000 and 2017, the number increased from 173 million to 258 million (an increase of almost 50%). To reap the benefits of migration, states need to enable migrants and refugees to integrate into the labour market and society through access to employment opportunities. One important factor that prevents this relates to the under-utilization of migrants' and refugees' skills in countries of destination and upon return. It is therefore vital not only to support governments in adopting policies and legislation that facilitates the access of migrant workers and refugees to the labour market but also to support them in developing and contextualizing technical solutions that may assist them to reduce the strain on public services whilst improving service delivery to the host-population. Therefore, the ILO Skills and Employability Branch is piloting a web-application in Kenya, Egypt, Lebanon, Iraq and Jordan for over 3,000 refugees, migrants and host populations in developing countries that allows individuals to capture and present their past experiences, skills and competences acquired both formally and informally. The multi-lingual and minimal text-typing methodology allows individuals to produce a profile of their skills and competencies summarized in a standardized Curriculum Vitae, and in more detailed occupational competency profiles. Counsellors of employment services, UNHCR, NGOs or other service providers can also assist in filling in and completing the profile. The app has also been integrated with ILO's Job Search Clubs in Egypt and Kenya—intensive two-week peer learning programmes aimed at boosting employability among disadvantaged job seekers. A tracer study was concluded in Egypt. Despite technical enhancements (e.g., SMS invitations instead of email, improved user interface), limitations were identified:
- Department/Division: ILO Skills and Employability Branch
- Project Type/Output: Software tool/Application
- Project Status: Concluded
- Project Start Year: 2020

- Project End Year: 2023
- Project Domain: Education and training, Job and Employment
- Data Source: Individual level data is collected through implementing partners in Egypt, Kenya and Lebanon.
- The European System of Occupational Classifications ESCO, with more than 13.000 skills and 3000 occupations, is utilized as a reference framework for coding / classifying skills. An AI engine learns which skills tend to 'appear in combination' and prompts the right follow-up questions to the user / employment service provider.
- Technology/Platform: Testing and applying an AI-based competency profiling tool in Egypt, Kenya and Lebanon
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education; SDG 8 - Decent Work and Economic Growth
- Partnership(s)/Collaborator(s): UN Partners: under PROSPECTS; Government: ABA (Egyptian public employment services); Private Sector: Skilllab (start-up that is developing the app); NGOs and Implementing Partners: AVSI Lebanon, Safadi Foundation, Danish Refugee Council (DRC), Caritas Iraq, AVSI Iraq, Jordan River Foundation (JRF), Duhok Vocational Training Center (DVTC)
- Contact information: Christine Hofmann (hofmann@ilo.org)

Project 4: Digitalization of national TVET and skills systems: Harnessing technology to support LLL

- Project Description: The project explores the potential for digitalization of different functions in TVET, skills development and Lifelong learning systems. Digital transition of TVET and skill systems goes far beyond taking training products and services online. A holistic and coordinated approach to digitalization should be taken that looks at each high-level function of a national skills system, and its potential for digitalization. This report describes and updates the picture of digital vocational education and training, providing an overview of the issues surrounding digitalization across the key functional areas of skills systems. It gives an introduction to key frameworks and tools; concrete examples of national initiatives, adaptable digitalization models and practical guides; as well as providing initial guidance on implementation, to deploy a strategic approach to the digitalization of national TVET and skills development systems at the country level.
- Department/Division: SKILLS Branch
- Project Type/Output: Report
- Project Status: Complete
- Project Start Year: 2021
- Project End Year: 2021
- Project Domain: Education and training
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education; SDG 8 - Decent Work and Economic Growth
- Contact information: Karine Sonigo (sonigo@ilo.org)

Project 5: The Skills Gap in Jordan and Impact on Unemployment

- Project Description: Mehnati provides a solution for labour market information. The initial conceptual idea was born in a project 'Applying the G20 Training Strategy Project' that was funded by the Russian Federation through ILO Jordan office. The goal was to bridge the employability gap and to promote development. The design of the concept was undertaken in close collaboration with all relevant stakeholders with the aim to offer a smooth and easy to use platform to Employers, Job Seekers and Training providers. Various national stakeholders including the chamber of industry, chemicals and garments sector skills councils as well as a number of training providers participated in the design

of the concept. This process revealed the high need for the Mehnati platform in different sector and geographical places. Also, it revealed the need to cover various skill types, ranging from TVET, Modular bridge learning, and work readiness for digital gig based workers.

To ensure that Mehnati learns from previous experiences and capitalizes on know-how achieved across various ILO projects, it will be implemented in phases or mini-projects, with the ultimate objective of creating value across the spectrum of ILO reach in different sectors and geographical places. Mehnati will be integrated into the national e-counselling platform Jordan has created with support of the ILO.

- Entity Name: RO Arab States
- Project Type/Output: Software tool
- Project Status: Development/Ongoing
- Project Start Year: 2020 (piloting)
- Project Domain: Education and training; Gender; Poverty
- Data Source: LMI, Training content, Employment opportunities
- Technology/Platform: This currently being specified. But the portal uses AI for the "job fit test", which helps automate some aspects of career counselling in the experience
- Related Sustainable Development Goals (SDGs): SDG 1 - No Poverty; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry; Innovation, and Infrastructure; SDG 10 - Reduced Inequalities; SDG 17 - Partnerships for the Goals
- Contact information: Anna-Marie Lawrence (lawrencecek@ilo.org)

Project 6: Online digital labour platforms in China: Working conditions, policy issues and prospects

- Project Description: Digital labour platforms have been proliferating in China since 2005, making China one of the world's largest platforms economies. This paper summarizes the results of an ILO survey, conducted in 2019, of workers' characteristics and working conditions on three major digital labour platforms. Using the survey data generated, it provides first-hand information on worker demographics, motivations, and experiences. This paper also compares the findings between the Chinese platforms and dominant Western platforms, the object of previous ILO studies. The paper concludes with a discussion about the need for institutional reforms and suggests some possible avenues for implementing policies to improve working conditions.
- Department/Division: WORKQUALITY
- Project Type/Output: Working Paper
- Project Status: Complete
- Project Start Year: 2020
- End Year: 2021
- Project Domain: Human Rights, Labour
- Data Source: Economic data
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 - Decent Work and Economic Growth
- Relevant Links and Multimedia
 - o https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_768699.pdf
- Contact Information: Nuno Meira Simoes Cunha, cunhan@ilo.org

Project 7: Platform work and the employment relationship

- Project Description: This working paper analyses national and supranational case law and legislation about the employment status of platform workers. It does so by referring to the ILO Employment Relationship Recommendation, 2006 (No. 198). It finds that this Recommendation provides for a valuable compass to navigate the issues that emerge from the analysis of the existing case law and legislation about platform work.
- Department/Division: WORKQUALITY
- Project Type/Output: Working Paper
- Project Status: Complete
- Project Start Year: 2020
- Project End Year: 2021
- Project Domain: Human Rights, Justice, Labour
- Data Source: Legal Information
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Links and Multimedia: https://www.ilo.org/global/publications/working-papers/WCMS_777866/lang--en/index.htm
- Contact information: Nuno Meira Simoes Cunha, cunhan@ilo.org

Project 8: Digital Work in Eastern Europe: Overview of Trends, Outcomes, and Policy Responses

- Project Description: This paper presents the emergence and growth of digital labour markets in Eastern Europe over the period 1999-2019. It presents the profiles of digital workers, their working conditions and discusses how these are shaped by the business models of digital labour platforms.
- Entity Name: INWORK
- Department/Division: WORKQUALITY
- Project Type/Output: Working Paper
- Project Status: Complete
- Project Start Year: 2021
- Project End Year: 2021
- Project Domain: Human Rights, Justice, Labour
- Data Source: Legal and economic data.
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Relevant Links and Multimedia: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_794543.pdf
- Contact information: Nuno Meira Simoes Cunha, cunhan@ilo.org

Project 9: How Do You Lip Read a Robot? – Recruitment AI has a Disability Problem

- Project Description: Information sharing webinar arising from discussion within ILO Global Business and Disability Network on the risks associated with using AI powered recruitment software, based on emerging evidence that it leads to the exclusion of candidates with different types of disabilities.
- Department/Division: WORKQuality, Gender, Equality, Diversity and Inclusion Branch
- Project Type/Output: Seminar/ Meeting

- Project Status: Complete
- Project Start Year: 2021
- Project End Year: 2021
- Project Domain: Human Rights, Equality and non-discrimination, Employment
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 8 – Decent Work and Economic Growth
- Relevant Links and Multimedia: https://youtu.be/ndA-Z_wJ31s
- Contact information: Stefan Tromel (tromel@ilo.org)

Project 10: Tripartite Meeting of Experts on decent work in the platform economy

- Project Description: The ILO Centenary Declaration for the Future of Work, adopted on 21 June 2019, calls on all ILO Members to put in practice “policies and measures that ensure appropriate privacy and personal data protection, and respond to challenges and opportunities in the world of work to the digital transformation of work, including platform work”. On 27 March 2021, at its 341st Session, the Governing Body decided “to request the Office to convene a tripartite meeting of experts on the issue of “decent work in the platform economy” in the course of 2022”. This meeting is expected to take place in September 2022.
- Entity Name: INWORK
- Department/Division: WORKQUALITY
- Project Type/Output: Seminar/Meeting
- Project Status: Ongoing
- Project Start Year: 2020
- Project Domain: Human Rights, Justice, Labour
- Data Source: Economic and legal data.
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Nuno Meira Simoes Cunha, cunhan@ilo.org

Project 11: Technical meeting on the future of work in the arts and entertainment sector

- Project Description: At its 341st Session, in March 2021, the Governing Body of the International Labour Office endorsed the convening of a technical meeting on the future of work in the arts and entertainment sector, which took place 13-17 February 2023. The purpose of the meeting was to discuss opportunities and challenges for decent work in the sector in the context of digital technologies, globalization, environmental sustainability, demographic changes and a human-centred COVID-19 recovery, with the aim of adopting conclusions, including recommendations for future action. In order to inform the meeting, a [report for discussion](#) was published including trends and developments regarding digitalization in the retail sector. The discussion took place based on [points for discussion](#), and the meeting resulted in agreed [conclusions](#) including recommendations for the Office and for the ILO constituents.
- Department/Division: SECTOR
- Project Type/Output: Seminar/meeting
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2023
- Project Domain: Future of work, AI, Digitalization, Decent work

- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Margherita Licata (licata@ilo.org)

Project 12: Technical meeting on digitalization in the retail sector as an engine for economic recovery and decent work

- Project Description: At its 346th Session, in October–November 2022, the Governing Body of the International Labour Office endorsed the convening of a technical meeting on digitalization in the retail sector as an engine for economic recovery and decent work, which took place 25–29 September 2023.

The purpose of the meeting was to discuss opportunities and challenges for the future of work in retail and commerce in the context of digitalization as a vehicle to ensure a human-centred economic recovery, including from the COVID-19 pandemic, with the aim of adopting conclusions, including recommendations for future action.

In order to inform the meeting, a [report for discussion](#) was published including trends and developments regarding digitalization in the retail sector. The discussion took place based on [points for discussion](#), and the meeting resulted in agreed [conclusions](#) including recommendations for the Office and for the ILO constituents.

- Department/Division: SECTOR
- Project Type/Output: Seminar/meeting
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2023
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Margherita Licata (licata@ilo.org)

Project 13: Issues paper for the Technical meeting on the future of decent and sustainable work in urban transport services

- Project Description: Urban passenger transport systems are crucial to the achievement of sustainable cities and communities and contribute towards a zero-carbon future. Yet, the industry is faced with disruption from the pandemic, a technological revolution, as well as with plummeting ridership and occupational safety and health challenges. The meeting discussed challenges and solutions relating to the future of decent and sustainable work in urban passenger transport operations and services, with the aim of adopting conclusions, including recommendations for future action. The document includes a section on technological innovation and AI, which emphasizes ITU's "AI for good" mandate. The paper aims to inform the meeting's discussion, highlighting the trends steering major sectoral changes and analysing how these impact employment, labour and social protection, and the sector's regulatory environment.
- Department/Division: SECTOR
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2021
- Project Domain: Transport
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being (3.6 Road Safety); SDG 11 – Sustainable Cities and Communities (11.2 Sustainable public transport)

- Links and Multimedia: https://www.ilo.org/sector/activities/sectoral-meetings/WCMS_726153/lang-en/index.htm, https://www.ilo.org/sector/activities/sectoral-meetings/WCMS_818255/lang-en/index.htm
- Contact information: Alejandra Cruz Ross (cruzross@ilo.org)

Project 14: Research brief on Generative AI and the media and culture industry (2025)

- Project description: The brief explores the transformative impact of Generative AI (GenAI) on the media and culture industry, analyzing its effects on job exposure, skills demand, and employment conditions. It highlights the need for policy frameworks, ethical AI governance, and social dialogue to mitigate risks such as job displacement and ensure fair compensation and creative control for workers.
- Department/Division: RESEARCH and SECTOR
- Project output: Research
- Project status: completed
- Project start year: 2024
- Project end year: 2025
- Project domain: AI, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Margherita Licata (licata@ilo.org), Janine Berg (berg@ilo.org)

Project 15: Modernizing ISCO revision with AI

- Project Description: The ILO Department of Statistics is exploring advanced NLP and machine-learning techniques that draw on the latest National Occupational Classifications (NOCs) and millions of Online Job Advertisements (OJAs) to keep the International Standard Classification of Occupations (ISCO) current and policy-relevant. Rapid shifts in the labour market make 20-year revision cycles obsolete, yet manual updates are too resource-intensive to repeat more often. An AI-augmented pipeline now automates the heavy lifting, quickly surfacing new emerging occupations and aligning them with ISCO's global framework. The modernization effort is organised around three linked sub-projects: (1) an interactive visualizer that shows ISCO's hierarchy and clusters similar occupations, and recommends the most likely group for any newly identified job title based on its similar distance; (2) AI-assisted cross-walks that map multiple NOCs to ISCO and flag structural changes; and (3) automated detection of new emerging occupations through large-scale analysis of OJAs. Outputs from these sub-projects will be reviewed by the ISCO Technical Working Group (TWG) and incorporated into the ISCO-2028 draft that will be presented and discussed at the 22nd International Conference of Labour Statisticians.
- Department/Division: Department of Statistics
- Project Output: Software tools, Dataset, Methodological report, Expert workshop, Community of Practice
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2028
- Project Domain: Labour statistics, ISCO, Classification standards, labour market
- Data source: Public NOCs; web-scraped OJAs supplied by public and private partners
- Technology/Platform: Azure AI Search, Python, OpenAI API, TensorFlow
- Project Partners: National statistical offices and ministries of labour (e.g. Ministry of Manpower, Singapore); Private sectors (e.g. Buscojobs)

- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Shutong Ding (ding@ilo.org)

Project 16: Labour market intelligence: AI-generated analytical drafts for LMIS

- Project Description: Building on nearly 30 national Labour Market Information System (LMIS) projects, this pilot uses large language models to pull SDMX-standard data directly from LMIS APIs, auto-draft quarterly and annual labour market briefs and analytical reports, produce interactive visualisations and assemble dynamic dashboards. A chat interface allows analysts to further refine the narrative and visuals in real time.
- Department/Division: Department of Statistics
- Project Output: Software tools, Dashboard
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Labour statistics, Data visualization, Data reporting, LMIS, Labour market intelligence
- Data source: Public national LMIS SDMX API; historical labour analytical reports
- Technology/Platform: Python, OpenAI, free SLMs
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Shutong Ding (ding@ilo.org)

Project 17: SAS Migration to Python and Oracle PL/SQL

- Project Description: For over 40 years, SAS has been one of the core development languages used in the ILOSTAT system. However, due to its high licensing costs and evolving technological needs, a strategic decision was made to migrate to Python and Oracle PL/SQL. Given the complexity of the system—with thousands of processes and programs—and the limited internal resources available, artificial intelligence will be leveraged to support and accelerate this critical migration effort.
- Department/Division: Department of Statistics
- Project Output: Software tools, Migrated codebase
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2026
- Project Domain: Labour statistics, code
- Data source: ILOSTAT system
- Technology/Platform: SAS, Python, Oracle PL/SQL
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Christophe Vittorelli (vittorelli@ilo.org)

Project 18: Employment and Social Affairs Platform 2

- Project Description: Labour Inspectorates play a vital role in enforcing labour laws and Occupational Safety and Health (OSH) regulations. Artificial intelligence (AI) can significantly enhance the effectiveness and efficiency of inspection planning and the outcomes of such inspections. The International Labour Organization (ILO) has reconceptualized the Albanian State Inspectorate of Labour and Social Services' data

management and risk assessment tools. This effort resulted in the creation of a unified system, Matrix of Intelligence and Risk Assessment (MIRA), for case and data management, as well as risk assessment. MIRA aims to increase the effectiveness and efficiency of the Inspectorate in addressing undeclared and under-declared work. MIRA ensures the consistent implementation of inspection protocols, thereby promoting equal treatment of all inspected businesses and enhancing transparency in inspection planning and execution. Its risk assessment component leverages data mining and machine learning techniques, improving the accuracy of predicting violations and identifying business profiles at higher risk by 30%, compared to the previous red-flag-based risk assessment tool.

- Although the project's primary goal was to address informal employment, MIRA's predictive capabilities extend across all areas of labour relations and occupational safety and health.
- Department/Division: DWCT/CO Budapest
- Project Output: Software tools and research paper
- Project Status: Completed
- Project Start Year: 2019
- Project End Year: 2023
- Project Domain: AI, Digitalization, Decent work
- Technology/Platform: Microsoft Azure
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Links and Multimedia: [AI provides innovative ways to improve compliance with labour laws | International Labour Organization](#); [Data mining and machine learning: Supporting labour inspectorates to address undeclared work](#); [Matrix of Intelligence and Risk Analysis](#).
- Contact information: Ada Huibregtse (huibregtse@ilo.org)

Project 19: Generative AI and Jobs: A Global Analysis of Potential Effects on Job Quantity and Quality

- Project Description: The report "Generative AI and Jobs: A Global Analysis of Potential Effects on Job Quantity and Quality" provides valuable insights into the evolving labor market influenced by generative AI technologies. The report underscores the importance of proactive policies that focus on job quality, fair transitions, and social dialogue to support workers as they adapt to new technological realities. This approach highlights the need for continuous learning and skill development to harness the benefits of AI advancements effectively. The accompanying research brief "Generative AI and Jobs: Policies to Manage the Transition" adds a global perspective to the debate on the labour markets and generative AI. It predicts that the overwhelming effect of the technology will be to augment occupations, rather than to automate them. The greatest impact is likely to be in high and upper-middle income countries due to a higher share of employment in clerical occupations. As clerical jobs are an important source of female employment, the effects are highly gendered. Insights from this study underline the need for proactive policies that focus on job quality, ensure fair transitions, and that are based on dialogue and adequate regulation. This brief provides additional regional and sub-regional estimates, not covered in the main working paper.
- Department/Division: RESEARCH/STATS
- Project Type/Output: report
- Project Status: Completed
- Project Start Year: 2022
- Project End Year: 2023
- Project Domain: Future of work, Digitalization, Decent work

- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Paweł Gmyrek (gmyrek@ilo.org)

Project 20: Observatory on AI and Work in the Digital Economy

- Project Description: The International Labour Organization's (ILO) Observatory on Artificial Intelligence and Work in the Digital Economy serves as a leading international knowledge hub focusing on the implications of AI and digital technologies on the world of work. Launched on September 25, 2024, the Observatory consolidates evidence, analysis, and expertise across four key areas: artificial intelligence, algorithmic management, digital labour platforms, and workers' personal data. Its mission is to support governments and social partners in understanding and managing the digital transformation of work, thereby promoting decent work and social justice amidst rapid technological change.
- Department/Division: RESEARCH/ILO-wide
- Project Type/Output: knowledge hub
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: ongoing
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth SDG 4 – Quality Education; SDG 17 – Partnerships for the Goals
- Contact information: Sher Verick, verick@ilo.org

Project 21: Workforce 2030: Skills for thriving in the green and digital transitions

- Project Description: The ILO's Skills and Employability Branch has collaborated with Cambridge Econometrics to estimate future skills demand under various scenarios. This partnership utilizes advanced macroeconomic modeling to anticipate labour market trends, providing valuable insights for policymakers and stakeholders. The analyses focus on understanding the key drivers of change, such as technological advancements and the transition to greener economies, and their implications for employment and skills requirements. By assessing different policy and investment scenarios, these studies aim to inform strategies that ensure the workforce is equipped with the necessary skills to adapt to evolving labour market demands. The forthcoming report "Workforce 2030: Skills for thriving in the green and digital transitions" leverages the global employment projections, recent analyses, and literature review to highlight key trends in occupational and skills requirements for greening and digitalising economies.
- Department/Division: SKILLS
- Project Type/Output: report
- Project Status: ongoing
- Project Start Year: 2024
- Project End Year: ongoing
- Project Domain: Future of work, Skills, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth SDG 4 – Quality Education;
- Contact information: Olga Strietska-Ilina (strietska-ilina@ilo.org)

Project 22: The Role of Skills in Mediating the Effects of Emerging Digital Technologies on Employment

- **Project Description:** The world of work is undergoing transformative shifts driven by rapid advancements in digital technology. The conducted research aims to identify the specific skills that enhance workers' capacity to adapt to digital transformations in the labour market. Relying on the TechXposure database and using subnational data for 50 countries, we estimate the causal effect of exposure to emerging digital technologies on employment. We then examine the role of skills in mediating these effects by using a subnational regional measure of the skills composition of occupations constructed based on big online vacancy data for a set of countries. The results provide valuable insights into the labour market implications of regional exposure to these technologies and allow to identify the skills that are needed for workers to better navigate the complexities of global transformations.
- **Department/Division:** RESEARCH Skills, Active Labour Market Policies and Policy Evaluation Unit
- **Project Type/Output:** academic paper and Chapter 4 of the upcoming flagship report on "Lifelong Learning and Skills Dynamics"
- **Project Status:** ongoing
- **Project Start Year:** 2024
- **Project End Year:** ongoing
- **Project Domain:**
- **Related Sustainable Development Goals (SDGs):** SDG 8 – Decent Work and Economic Growth SDG 4 – Quality Education;
- **Contact information:** Verónica Escudero (escudero@ilo.org)

Project 23: AI support tool for MSMEs and BDS providers as to support job creation and income generation

- **Project Description:** The MSME Branch is working to introduce SABY - the SIYB AI Buddy for You! SABY is a proposed AI-powered WhatsApp-based tool designed to complement the Start and Improve your Business (SIYB) training programme (www.ilo.org/siyb). SIYB is the worlds largest start-up and management training programme for MSMEs globally with more than 25 million end users and active trainer networks in 100 countries with more than 60.000 certified trainers. SABY intends to offer low-cost, post-training support to help trainees reinforce and apply their SIYB learnings, strengthen business management skills, and extend SIYB's reach among MSMEs and entrepreneurs. Following a thorough planning process to define the tool's key features and functionalities selected ILO projects will pilot test the tool in close collaboration with the SIYB global coordination team in 2025/2026. Over an anticipated 18-month period – from setup through testing to the completion of the full pilot phase – participating projects will help drive digital innovation in entrepreneurship training. In return, they will benefit from expanded reach and deeper engagement with entrepreneurs. The pilot will also generate valuable lessons and insights to enhance post-training support and promote long-term impact with AI based tools.
- **Department/Division:** MSME Branch in ENTERPRISES
- **Project Type/Output:** Pilot test AI based tool for MSME advice in conjunction with BDS providers
- **Project Status:** Starting
- **Project Start Year:** 2025
- **End Year:** 2026
- **Project Domain:** MSME development, employment, job creation, MSME competitiveness
- **Data Source:** SIYB global network, SIYB Materials and other MSME support tools as programmed in dedicated AI module

- Publicly available data: No
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Relevant Links and Multimedia: www.ilo.org/siyb
- Contact Information: Nadja Nutz (nutz@ilo.org)

Project 24: Buffer or Bottleneck? Employment Exposure to Generative AI and the Digital Divide in Latin America

- Project Description: In this new paper from the International Labour Organization and the World Bank Group, researchers found that Generative AI could have transformative effects on jobs and livelihoods in Latin America and the Caribbean. Nonetheless, gaps in digital infrastructure and other inequalities could hinder the potential impacts of Generative AI in the region. <https://www.ilo.org/publications/buffer-or-bottleneck-employment-exposure-generative-ai-and-digital-divide>
- Department/Division: RESEARCH.
- Project Type/Output: report
- Project Status: Completed
- Project Start Year: 2023
- Project End Year: 2024
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Paweł Gmyrek (gmyrek@ilo.org)

Project 25: Algorithmic Management practices in regular workplaces: case studies in logistics and healthcare

- Project Description: The objective of this study is to understand better the algorithmic management practices adopted by regular workplaces. We investigate the degree of penetration and impact of algorithmic management on work organization, job quality and industrial relations focusing on the logistics and healthcare sectors. The research has been conducted in two European countries (Italy and France) and two non-European countries (India and South Africa), allowing for a comparative analysis across countries in the Global North and Global South. We show that algorithmic management is widely present in traditional sectors, with benefits in terms of streamlining and simplification of work processes and efficiency gains. The implications of these new forms of work for work organization and working conditions are also discussed. We show significant challenges in terms of potential deterioration of job quality as well as concerns regarding the strong potential for intrusive worker surveillance. <https://www.ilo.org/publications/algorithmic-management-practices-regular-workplaces-case-studies-logistics>
- Department/Division: RESEARCH
- Project Type/Output: report
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2024
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Uma Rani, rani@ilo.org

Project 26: Mitigating Artificial Intelligence Bias in the Workplace and Human Resources Practices

- Project Description: This three-day knowledge series explores how digital technologies, AI, and algorithmic management are used in the workplace and the risks they pose for workers' fundamental labor rights. The webinar delves into the common ways AI is applied in recruitment, management, and control of workers, as well as productivity monitoring and evaluation. It also addresses the potential risks associated with algorithmic management that can impact workers' rights and explores opportunities for AI to promote diversity and inclusion. <https://www.itcilo.org/courses/artificial-intelligences-workplace-revolution-combatting-discrimination-promoting-diversity>
- Department/Division: International Training Centre of the ILO (ITCILO)
- Project Type/Output: capacity building
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Tom Wambeke, t.wambeke@itcilo.org

Project 27: AI Forum

- Project Description: The AI Forum shared the lessons and challenges encountered in the adoption of AI in the world of work. <https://www.itcilo.org/events/ai-forum-unleash-future-learning>
- Department/Division: International Training Centre of the ILO (ITCILO)
- Project Type/Output: capacity building
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: open
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Tom Wambeke, t.wambeke@itcilo.org

Project 28: Artificial Intelligence Lab – Knowledge Sharing and Management

- Project Description: The use of Artificial Intelligence (AI) in knowledge-sharing and management can help organizations automate tedious tasks, provide actionable insights, and enable faster decision-making. In this lab, we will explore practical AI applications that can enhance knowledge-sharing and management. <https://www.itcilo.org/courses/artificial-intelligence-lab>
- Department/Division: International Training Centre of the ILO (ITCILO)
- Project Type/Output: capacity building
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth

- Contact information: Tom Wambeke, t.wambeke@itcilo.org

Project 29: Employment in times of digitalisation and Artificial Intelligence

- Project Description: The Employment Policy and Analysis Programme of the ITCILO with the support of experts from the Employment, Labour Markets and Youth Branch (EMPLAB) and other departments of the ILO is preparing a training on employment in the digital economy, exploring both emerging opportunities and challenges. The objective is to better understand the scope of the digital revolution and its impact from a decent work perspective, e.g., the impact on labour markets, jobs, skills, specific groups and public employment services. This training will also highlight “digital divides” across groups, sectors and countries, while presenting ILO diagnostic tools to analyse the impact of digitalization on employment and policy dimensions to harness the benefits of the digital economy. The training will also emphasize the role of innovation in making the digital transformation more inclusive. <https://www.itcilo.org/courses/employment-times-digitalisation-and-artificial-intelligence>
- Department/Division: International Training Centre of the ILO (ITCILO)
- Project Type/Output: capacity building
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: open
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Bernd Mueller, b.mueller@itcilo.org

Project 30: Innovative Solutions for Formalization in Latin America and the Caribbean - AI tools for Colombia's coffee producers

- Project Description: The International Labour Organization (ILO) and the Government of the Department of Huila, Colombia, launched a pilot of an artificial intelligence (AI) tool, which aims to boost productivity and promote decent work for Colombia's coffee producers. The platform, 'AgroasesorIA', is set to benefit at least 700 coffee producers over the next six months in Colombia's main coffee producing department – or region –, the Department of Huila. Through a WhatsApp chatbot, producers will be able to ask questions and receive personalized advice on labour formalization, business management, occupational health and safety, and good agricultural practices. <https://www.ilo.org/resource/news/ILO-AI-tool-supports-Colombia-coffee-producers>
- Department/Division: Regional Office for Latin America and the Caribbean
- Project Type/Output: technical assistance/use case
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Juan Manuel García (garciaju@ilo.org)

Project 31: Revolutionizing health and safety: The role of AI and digitalization at work

- Project Description: Digitalization and automation are transforming millions of jobs worldwide, creating powerful opportunities to enhance occupational safety and health.

Automation and smart monitoring systems can reduce hazardous exposures, prevent injuries and improve overall working conditions. However, these advances also bring new potential risks that require proactive and adaptive policy responses. The report explores the OSH implications of the following technologies and processes: automation and advanced robotics; smart OSH tools and monitoring systems; extended and virtual reality; algorithmic management of work; and changing work arrangements, including telework and digital labour platforms. The report examines global, regional, and national policies that govern OSH in digitalized workplaces, highlighting regulatory gaps and policy responses. It also discusses risk assessment, worker participation and preventive strategies for integrating digital tools safely and effectively at the workplace level. <https://www.ilo.org/publications/revolutionizing-health-and-safety-role-ai-and-digitalization-work>

- Department/Division: OSHE
- Project Type/Output: report
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Future of work, Digitalization, Decent work
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth
- Contact information: Manal Azzi, azzi@ilo.org

2. Related Sustainable Development Goals

SDGs 1, 3, 4, 5, 8, 9, 10, 11, 17

3. Relevant Links

<https://www.ilo.org/artificial-intelligence-and-work-digital-economy>

Contact: Sher Verick, verick@ilo.org

International Monetary Fund



1. Description of Activities on AI

Project: Powering the Digital Economy: Opportunities and Risks of Artificial Intelligence in Finance

- **Project Description:** This paper discusses the impact of the rapid adoption of artificial intelligence (AI) and machine learning (ML) in the financial sector. It highlights the benefits these technologies bring in terms of financial deepening and efficiency, while raising concerns about its potential in widening the digital divide between advanced and developing economies. The paper advances the discussion on the impact of this technology by distilling and categorizing the unique risks that it could pose to the integrity and stability of the financial system, policy challenges, and potential regulatory approaches. The evolving nature of this technology and its application in finance means that the full extent of its strengths and weaknesses is yet to be fully understood. Given the risk of unexpected pitfalls, countries will need to strengthen prudential oversight.
- **Department/Division:** Money and Capital Markets Department and Information and Technology Department
- **Project Type/Output:** White Paper
- **Project Status:** Completed
- **Project Start Year:** 2021
- **Project End Year:** 2021
- **Project Domain:** Finance
- **Related Sustainable Development Goals (SDGs):** SDG 8 – Decent Work and Economic Growth; SDG 10 – Reduced Inequalities
- **Data Source:** Many Sources
- **Publicly available data:** Yes
- **Links and Multimedia:** <https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/10/21/Powering-the-Digital-Economy-Opportunities-and-Risks-of-Artificial-Intelligence-in-Finance-494717>
- **Technology/Platform:** Research Paper

2. Related Sustainable Development Goals

SDGs 8 and 10

3. Relevant Links

www.imf.org

Contact information: EL Bachir Boukherouaa (eboukherouaa@imf.org)

International Maritime Organization



1. Description of Activities on AI

Project 1: Maritime Autonomous Surface Ships (MASS)

AI is part of the MASS functionality as the ship system (e.g. for collision avoidance) will have to learn from a large number of scenarios (Ship situations) to decide for the best anti-collision action to be taken. There will be many other AI applications for MASS. In this context, IMO developed a set of interim guidelines for the conduct of MASS trials, stipulating that trials should be conducted in a manner that provides at least the same degree of safety, security and protection of the environment as provided by the relevant instruments. IMO has also agreed on a road map for the development of a goal-based MASS Code which, as a first step, will be non-mandatory and is expected to be effective on 1 January 2025. With the experience gained, paired with new emerging concepts and technology, IMO will be working towards a mandatory Code, which is envisaged to enter into force on 1 January 2028.

- Project Type (Status): Framework/Strategy/Policy and Regulation (Development)
- Project Domain: Shipping
- AI Approach: AI as one of the drivers for enabling MASS operation; the IMO as the body responsible for regulating MASS, together with standard-setting organizations (e.g. ISO, IEC), will need to consider safety and security aspects of AI systems used for MASS
- Related Sustainable Development Goals (SDGs): SDG 8 Decent work and Economic growth, SDG 9 Industry, Innovation and Infrastructure, SDG 11 Sustainable Cities and Communities, SDG 13 Climate Action, SDG 14 Life below Water
- Project Website (links): [Autonomous shipping \(imo.org\)](https://www.imo.org/Autonomous-shipping)

Project 2: Marine Environmental Protection

IMO under its Global Industry Alliance to support Low Carbon Shipping (Low Carbon GIA) is working towards promoting Just-In-Time (JIT) arrivals of ships through the use of ship and port specific data with an aim to reduce fuel consumption and GHG emissions at sea and in ports.

IMO adopted MEPC in 2022 resolution 366 (79) which invites IMO Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships. It is expected that AI will help with many elements of this cooperation, especially voyage optimization, weather routing, and just-in-time (JIT) arrivals in ports.

The in July 2023 adopted 2023 IMO Greenhouse Gas (GHG) Strategy (resolution MEPC.377(80)) also acknowledges the importance of addressing the human element, including the impact on seafarers and other maritime professionals, in the safe implementation of the Strategy. It

is expected that AI could assist in training seafarers with the safe handling of alternative low-carbon fuels and other decarbonization technology.

- Project Type (Status): Ideation
- Project Domain: Marine environmental protection
- Datasets: Port call data
- Related Sustainable Development Goals (SDGs): SDG 9 Industry, Innovation and Infrastructure, SDG 13 Climate Action
- Project Partners: –Members of the Low Carbon GIA, and other maritime stakeholders

Project 3: Digital Review

IMO is undertaking a digital review, to ensure a future-viable IMO, as part of a broader Functional Review. The Secretariat aims to ascertain what is working well and what is not working well, what is needed and what is redundant, and to develop a digital strategy and roadmap for the next 5 years to ensure the Secretariat embraces digital opportunities in a way which will make it future viable with regards to digital access.

- Project Type (Status): Framework/Strategy/Policy (Development)
- Project Domain: Internal management
- AI Approach: Digital review
- Related Sustainable Development Goals (SDGs): SDG 9 Industry, Innovation and Infrastructure; SDG 13 Climate Action; SDG 14 Life below Water; SDG 16 Peace, Justice and Strong Institutions; SDG 17 Partnership for the Goals

Project 4: Knowledge building

A seminar/workshop to strengthen knowledge of the maritime community/IMO staff, as well as delegates.

- Project Type (Status): Training (Ideation)
- Project Domain: Capacity building
- AI Approach: Events

2. Related Sustainable Development Goals

SDGs 3, 8, 9, 11, 13, 14, 16 and 17

3. Relevant links

www.imo.org

Contact information: Ms Galuh Rarasanti, Senior Maritime Advisor (grarasan@imo.org)

International Organization for Migration



1. Description of Activities on AI

Project: Expanding IOM's Displacement Tracking Matrix's (DTM) Data Foundations

Project Description: the process of integrating OpenAI tools into the Displacement Tracking Matrix (DTM) core systems. This process is ongoing in three significant, interlinked and mutually re-enforcing areas:

a) Semantic search in the Central Data Dictionary

DTM's Central Data Dictionary (CDD) is built to provide access to all DTM missions worldwide so that users in the field can select survey indicators from a global question bank. Using a proprietary Form Builder application and Form validator, data collection tools and indicators deployed now share a standardised structure and codification, resulting in standardised coded DTMs datasets. Missions in diverse contexts can then gather the comparable information in the same format – data that can then be fed into a central database, extracted, and analysed in the same way. Yet, with hundreds of indicators in the Dictionary, field users need to find the questions that fit their contexts and gain them the answers they can realistically use to provide the best support possible to affected communities. With that need in mind, an AI-powered semantic search has been deployed to ease the process of finding indicators and building survey tools. For example, within the semantic search, a field mission can search for “barrier questions” and receive a list of the standard indicators that fit, whether barriers to access for people with disabilities or language barriers, so that they can select the ones they need more quickly. In addition to speed and ease for missions, the semantic search facilitates improved indicator selection by offering a reduced range of relevant indicators so missions can see options they might not have thought of without being overwhelmed by unrelated questions. It also allows the user to search natively in one of the five supported languages and will allow DTM to support additional languages natively in the application more easily. This tool ultimately allows users to develop survey tools from a pre-developed indicator bank for contextual relevance, whilst adding common structuring and codification to the output datasets.

b) Retro-fitting historical data to the new DTM DataLake

DTM's ongoing work to centralize and harmonize displacement data across region and country contexts includes the re-development of the medallion structure Data Lake. New data will only be ingested into the DTM Data Lake if the naming structure is compliant with the Central Data Dictionary. By default, data gathered going forward will be compliant since they will be gathered using forms generated using the Data Dictionary as mentioned above. However, historical data (pre-2024) will need to be retroactively recoded to the new data names. OpenAI search functions and clustering tools will be used to find and match similar questions that

can be changed to the current standardized versions to sort and format existing data. Using AI, historical data will be recoded on scale, allowing DTM to benefit from its long history and contextual information within a new, harmonized data structure, which will enable other innovations, such as displacement projects, and support anticipatory action.

c) DTM Chatbot for non-technical querying of its data systems

Utilizing the combined capabilities of OpenAI's large language model and Langchain's SQL Agent, DTM have developed a chatbot integrated with our aggregate baseline assessment database. This innovative chatbot empowers users to effortlessly query the database using natural language and receive responses in a similarly natural language format. Leveraging the SQL Agent functionality, the chatbot is adept at answering inquiries based on both the structure (schema) and contents of the database.

With this chatbot, we gain flexibility in extracting insights from our database. For instance, users can inquire about various statistics such as the total number of Internally Displaced Persons (IDPs), Migrants, or Returnees across different countries, regions, round and timeframes. Additionally, complex queries are supported, enabling users to delve into specific details, such as identifying the country, date and round with the highest number of IDPs over the past decade.

This integration not only streamlines the process of accessing critical information but also enhances the accessibility of our data for users across diverse skill levels. The chatbot serves as a user-friendly interface, bridging the gap between complex database structures and end-users, thereby facilitating more informed decision-making and analysis.

d) Building Damage Assessment

DTM continue to develop its systems and tools around remote Building Damage Assessment. Combining high resolution satellite imagery with the latest tools from ESRI and the machine learning models and tools from our collaboration with Microsoft's AI for Good to provide initial building damage estimates for the early stages of disaster response.

These improvements are leading to high accuracy of initial building damage assessment and support a faster deployment of these capabilities that can be scaled to a larger number of countries.

Keywords: Central Data Dictionary (CDD), humanitarian data collection, interoperability, harmonization of data systems

- Department/Division: Global Data Institute (GDI) – Displacement Tracking Matrix
- Project Type/Output: Global consolidation of DTM data into the DTM Data Lake
- Project Status: Ongoing
- Project Domain: data structure, displacement, human mobility
- Related Sustainable Development Goals (SDGs): 10.7 facilitate orderly, safe, and responsible migration and mobility of people, including through implementation of planned and well-managed migration policies
- Publicly available data: Yes
- Technology/Platform:
 - Angular, .NET Core, HTML, CSS, and JavaScript for the frontend of the system
 - Laravel 8 (PHP 7.4 and MySQL 8) for the back end of the system

- Google Maps Services and GeolP for the Geolocation of the interview
- Python (pandas, scipy, nltk, VADER, langchain) and Jupyter notebook
- PowerBI for daily monitoring dashboard
- Large Language Models (OpenAI)
- Azure Services
 - Azure App Service
 - Azure Cosmos DB (NoSQL)
 - Azure Cosmos DB for Mongo DB
 - Azure SQL Server
 - Azure Front Door
 - Active Directory services
 - Azure Storage account
 - Data Factory
 - Azure Open AI
- Partnership(s)/Collaborator(s):
- Civil Society: Microsoft, Kainos

2. Related Sustainable Development Goals

SDG 10

3. Relevant Links

www.dtm.iom.int

Contact information: Robert Trigwell (rtrigwell@iom.int)

International Trade Centre



1. Description of Activities on AI

Project 1: Strengthening policy support for SMEs in developing countries using artificial intelligence

- **Project Description:** TradeAI is an AI-powered online trade policy advisory application that offers policymakers quick and complimentary access to relevant policy solutions for their most common trade-related challenges. This app empowers policymakers to understand trade strategy, connect with other professionals, and create their own streamlined trade and SME (Small and Medium Enterprises) competitiveness strategies.

The project leverages AI to identify potential policy solutions that can address a country's trade competitiveness constraints. It utilizes image recognition, natural language processing (NLP) techniques, and neural networks to discover patterns in data and generate new policy insights. TradeAI was initiated in 2020 as a pilot project to evaluate how AI could help the International Trade Centre (ITC) identify pertinent information within extensive repositories of trade policy documents. Throughout 2021 and 2022, the project delved into ITC's comprehensive database of national trade strategies, employing a mix of NLP methods, information extraction techniques, and neural networks to thoroughly analyze the trade competitiveness issues countries typically encounter, along with the solutions policymakers and experts commonly recommend. In 2023, TradeAI initiated a pilot to integrate generative AI into the app, enhancing its capability to offer innovative policy solutions.

- **Department/Division:** Research Strategies for Export / Division of Market Development
- **Project Type/Output:** Online Application
- **Project Status:** Ongoing
- **Project Start Year:** 2020
- **Project Domain:** International Trade
- **Data Source:** Trade Strategy Map data (ITC's repository of trade strategies)
- **Data publicly available:** No, partial datasets only
- **Technology/Platform:** Open Source - Python
- **Related Sustainable Development Goals (SDGs):** SDG 8 – decent work and economic growth, and SDG 17 – partnership for the goals – by providing policy-relevant insights to policymakers in the area of trade strategy.
- **Relevant Links and Multimedia:**
 - Project site: <http://ai.intracen.org/>
 - Blog post: <https://www.linkedin.com/groups/9238012/>
- **Lesson Learned:** Supervised machine learning can be used to accurately identify relevant trade and SME-related content automatically. This capability significantly streamlines the tasks traditionally performed by junior policy analysts, who previously spent days on these activities. Now, similar (and consistently reliable) results can be achieved instantaneously with the click of a button. The substantial time savings free up resources for tasks that add more value.

- Another key insight is the ability of AI to uncover patterns of interest to policymakers, which are often hidden within vast amounts of text data, including tables. The outcomes of this project underscore the vital role AI plays in the design of trade and SME policies. By automatically mining extensive quantities of trade-related text data, AI generates invaluable policy insights and fresh perspectives on familiar issues. This shows that AI paves the way for the formulation of more effective policies, which in turn, benefit SMEs. Innovative services powered by AI have the potential to enhance SME competitiveness significantly. The development of such services is critical.
- Contact Information: Alberto AMURGO PACHECO (amurgo@intracen.org)

Project 2: Corporate Strategy for AI in ITC

- Project Description: ITC has developed an organizational strategy for AI in ITC's own operations - with a focus on how AI tools can make the organization more productive and innovate with new approaches to trade development.
- Project Type (Status): Ongoing
- Project Domain: International Trade and Development
- Datasets: Internal surveys
- Related Sustainable Development Goals (SDGs): SDG 8 - decent work and economic growth
- Project Partners: ITC
- Contact Information: Alberto AMURGO PACHECO (amurgo@intracen.org)

2. Related Sustainable Development Goals

SDG 8, 17

3. Relevant links

<http://ai.intracen.org/>

Contact Information: Alberto Amurgo Pacheco (amurgo@intracen.org)

International Telecommunication Union



1. Description of Activities on AI

Project 1: AI for Good

- Project Description: AI for Good is the leading action-oriented, global & inclusive United Nations platform on AI. Its goal is to identify practical applications of AI to advance the United Nations Sustainable Development Goals and scale those solutions for global impact.

The “digital bouquet of flowers” has been arranged into three streams (Learn, Build, Connect). For the complete list of service offerings, please visit [this page](#). These service offerings are available for all UN partners to play an active role in moving the needle towards achieving the Sustainable Development Goals.

AI for Good consists of an all year online program that broadcasts over 160 webinars every year, and the annual in-person AI for Good Global Summit (which did not take place from 2020 to 2022 due to COVID-19).

The content of the online AI for Good platform is organized into the following “Discovery channels” (plus some other topics), which comprise of technical talks which dig deeper into thematic areas transformed by Artificial Intelligence/Machine Learning as well as into challenges of current AI/ML technology. Each “Discovery” episode dedicates in general one hour to one researcher to present their latest findings in one of the topic areas below:

- AI for Earth and Sustainability Science
- AI and Climate Science
- AI for Manufacturing
- Geospatial AI (GeoAI)
- Machine Learning in 5G networks (ML5G)
- Trustworthy AI
- AI and Health
- AI for Biodiversity
- AI and Robotics
- Data-centric Machine Learning for Good
- AI & Work

The [AI for Good Neural Network](#) is an AI-powered smart matchmaking community platform that is designed to help users build connections with innovators and experts, link innovative ideas with social impact opportunities, and bring the community together to discuss AI applications for social good.

Expanding on ITU’s AI for Good programme, the Neural Network offers content and collaboration opportunities aligned to each of the 17 SDGs. Through the Neural Network, community members can connect to each other, receive personalized content, and pursue engagement aligned to their profiles, goals and needs.

The smart matching mechanism – designed according to the principles of the [Global Initiative in AI and Data Commons](#) – connects AI innovators to anyone with an AI-related problem, as a step towards globally scaled AI solutions. For example, it can generate matches for open data and AI algorithms, cloud storage and computing power, problem statements and expertise, funding and mentorships, domain transfer, SDG alignment, and more.

The solution is meant to stimulate unprecedented cooperation across borders and boundaries, foster impactful SDG-focused partnerships in the field of AI, and directly serve Goal 17: Revitalize the global partnership for sustainable development.

Join the Neural Network and build your profile to enable smart matching and personalized suggestions and discover 1000s of hours of on-demand content, networking features and virtual exhibitions, in addition to almost daily live sessions and interactive content.

LEARN – Design your personalized programme with smart content suggestions

BUILD – Take the smart-matching quiz to meet your future AI for Good partners

CONNECT – Join our networking sessions to meet world-class AI experts

The AI for Good Neural Network is open to all with an interest in how AI can positively impact the future of humankind. Join the [AI for Good Neural Network](#) to help build the future of AI. 15,000 people have joined the Neural Network in just over 1 year and continues to grow rapidly.

An onboarding tutorial video of how the Neural Network works can be viewed here: <https://www.youtube.com/watch?v=KULDHdb8xvM>

- Project Type: Platform/Event/Networking/Report/Meeting
- Project Status: Ongoing
- Project Start Year: 2017
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership: AI for Good is organized by ITU in partnership with over 50 UN Sister Agencies, and co-convened with Switzerland. In addition, various universities and organizations support AI for Good.
- Project Website (links): <https://aiforgood.itu.int/>; <https://aiforgood.itu.int/about-ai-for-good/discovery>; <https://aiforgood.itu.int/neural-network/>
- Contacts: AI for Good secretariat (ai@itu.int)

Project 2: UN Activities on Artificial Intelligence

- Project Description: Since 2018, ITU has issued the annual “Compendium of UN Activities on Artificial Intelligence”, aiming to introduce activities being carried out by the UN system. A joint-effort between ITU and over 50 UN agencies and bodies, all partners of AI for Good or members of the Interagency Working Group on AI, the report includes the collection of activity report from 50+ UN agencies, providing details on UN agencies experiments with AI to improve their response to global challenges. It also includes additional analysis and summary to provide a comprehensive overview of the trends and tracks within the UN system.
- Project Type: Report
- Project Status: Ongoing
- Project Start Year: 2018
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership: 40 UN entities
- Project Website (links):
 - 2018 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2018-1-PDF-E.pdf

- 2019 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2019-1-PDF-E.pdf
- 2020 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2020-1-PDF-E.pdf
- 2021 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2021-1-PDF-E.pdf
- 2022 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2022-1-PDF-E.pdf
- 2023 Compendium https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2023-1-PDF-E.pdf
- Contact Information: Jin Cui (jin.cui@itu.int), Sathvi Saran (sadhvi.saran@itu.int)

Project 3: Global Initiative on Virtual Worlds and AI

- Project Description: The Global Initiative on Virtual Worlds and AI – Discovering the Citiverse was launched by the International Telecommunication Union (ITU), the United Nations International Computing Centre (UNICC) and Digital Dubai. The Initiative serves as a global platform that aims at fostering open, interoperable and innovative AI-powered virtual worlds that can be used safely and with confidence by people, businesses and public services.
- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing
- Project Domain: Virtual Worlds and AI
- Project Start Year: 2024
- Related Sustainable Development Goals: Potentially all 17 SDGs
- Partnerships: ITU, Digital Dubai, and UNICC
- Relevant Links and Multimedia:
 - Global Initiative on Virtual Worlds and AI webpage: <https://www.itu.int/metaverse/virtual-worlds/>
 - Press release: <https://www.itu.int/en/mediacentre/Pages/PR-2024-06-14-first-UN-Virtual-Worlds-Day.aspx>
 - ITU metaverse and AI-powered virtual worlds activities: <https://www.itu.int/metaverse/>
 - ITU metaverse related events: <https://www.itu.int/metaverse/meetings-events/>
 - Publications on metaverse: <https://www.itu.int/metaverse/publications/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 4: UN Virtual Worlds Day

- Project Description: The United Nations Virtual Worlds Day is an annual event that explores the potential of AI-powered virtual worlds, including the metaverse, to advance the Sustainable Development Goals (SDGs) and the Pact for the Future. The inaugural event took place on June 14, 2024, in Geneva, Switzerland, organized by the International Telecommunication Union (ITU) in collaboration with various UN agencies and partners. This gathering highlighted how immersive digital platforms can serve as powerful tools for global progress. The second UN Virtual Worlds Day is scheduled for 11-12 June 2025, in Turin, Italy. The event will feature high-level dialogues, interactive showcases, and collaborative sessions. It aims to advance discussions on how virtual technologies can drive sustainable development, foster inclusivity, and shape the future of digital public infrastructure.
- Department/Division: Telecommunication Standardization Bureau (ITU)

- Project Status: Ongoing
- Project Domain: Virtual Worlds and AI
- Project Start Year: 2024
- Related Sustainable Development Goals: Potentially all 17 SDGs
- Partnerships: ITU, ITCILO, FAO, UNECA, UNECE, UNECLAC, UNESCWA, UNFCCC, UN Guatemala, UN Habitat, UNICC, UNICEF, UNRISD, UN Tourism, UNU, World Bank and WIPO
- Relevant Links and Multimedia:
- Event webpage: <https://www.itu.int/un-virtual-worlds-day/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 5: UN Citiverse Challenge

- Project Description: The UN Citiverse Challenge invites students and startups to develop innovative solutions that leverage AI-powered virtual worlds and digital public infrastructure to address pressing global challenges. Launched in February 2025 during the World Governments Summit in Dubai, the challenge focuses on three critical themes:
 1. Access to Public Services: Enhancing digital identity and financial systems to empower the 850 million people lacking official identification and the 1.4 billion unbanked individuals worldwide. [itu.int](https://www.itu.int)
 2. Sustainability and Resilience: Developing open, interoperable digital infrastructure to improve energy access, optimize resources, and bolster climate adaptation and disaster preparedness. [itu.int](https://www.itu.int)
 3. Tourism and Digital Culture: Utilizing virtual worlds to preserve cultural heritage, enhance accessibility, and foster immersive, inclusive cultural experiences.
- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing
- Project Domain: Virtual Worlds and AI
- Project Start Year: 2025
- Related Sustainable Development Goals: Potentially all 17 SDGs
- Partnerships: International Telecommunication Union (ITU), the United Nations International Computing Centre (UNICC), the International Training Centre of the International Labour Organization (ITCILO), World Intellectual Property Organization (WIPO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Children's Fund (UNICEF), the World Bank Group, UN Tourism, the United Nations Economic Commission for Europe (UNECE), Digital Dubai, Open & Agile Smart Cities (OASC), World Smart Sustainable Cities Organization (WeGO), City of Tampere, City of Valencia, University of Birmingham, Universitat Autònoma de Barcelona, University of Central Lancashire, Cyprus (UCLan Cyprus), HFT Stuttgart University of Applied Sciences and University for IoT Convergence & Open Sharing
- Relevant Links and Multimedia:
- Challenge webpage: <https://www.itu.int/metaverse/virtual-worlds/1st-un-citiverse-challenge/>
- Press release: <https://www.itu.int/hub/2025/02/un-citiverse-challenge-virtual-worlds-and-ai-for-human-centric-cities/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 6: UN metaverse Think-a-Thon

- Project Description: The UN metaverse Think-a-Thon 2024 aims to harness the potential of virtual technologies and innovative approaches to generate actionable insights, propose

practical solutions, and foster a collective vision for creating smarter, more sustainable cities and communities.

- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing
- Project Domain: Virtual Worlds and AI
- Project Start Year: 2024
- Related Sustainable Development Goals: Potentially all 17 SDGs
- Partnerships: ITU, UNICC, FAO and IAEA.
- Relevant Links and Multimedia:
- Think-a-Thon webpage: <https://www.itu.int/metaverse/un-virtual-worlds-day/thinkathon/>
- Press release: <https://www.itu.int/hub/2024/03/new-ideation-competition-on-metaverse-worlds/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 7: Focus Group on Artificial Intelligence for Health (FG-AI4H)

- Project Description: The [ITU-WHO Focus Group on Artificial Intelligence for Health \(FG-AI4H\)](#), driven in close collaboration by ITU and WHO, is working towards the establishment of a framework and associated processes for the performance benchmarking of 'AI for Health' algorithms. The group is working on 20+ topic areas ("use cases") addressing health issues including breast cancer, neurodegenerative diseases, autism, vision loss, skin lesions, cardiovascular diseases, venomous snakebites and many more. An overview article was published in The Lancet - "[WHO and ITU establish benchmarking process for artificial intelligence in health](#)" - a weekly peer-reviewed general medical journal which is among the world's oldest, most prestigious and best known general medical journals. See also the [Whitepaper for the ITU/WHO focus Group on Artificial Intelligence for Health](#). The project, closed in 2023, is continued under a new platform led by ITU, WHO and WIPO, the Global Initiative on AI for health.
- Project Status: Continuing under a new platform
- Project Start Year: 2018
- Project End Year: 2023
- AI Approach: Framework/Strategy/Methodology Formation
- Partnership: World Health Organization
- Project Website (links): <https://www.itu.int/en/ITU-T/focusgroups/ai4h>
- Contact Information: Simao Campos (simao.campos@itu.int), Secretariat (tsbfgai4h@itu.int)

Project 8: Global Initiative on Artificial Intelligence for Health (GI-AI4H)

- Project Description: The Global Initiative on AI for Health (GI-AI4H) is a collaborative project established by the International Telecommunication Union (ITU), the World Health Organization (WHO), and the World Intellectual Property Organization (WIPO) to harness the power of artificial intelligence (AI) for global health improvement. The initiative aims to develop international standards, norms, and policies to guide the ethical and responsible use of AI in healthcare, promote knowledge and data sharing, foster collaboration, and build a global community of AI for Health experts. It also seeks to establish sustainable models for implementing AI programs at the country level, making AI solutions accessible and impactful across diverse healthcare systems. The GI-AI4H is structured around three key functions: Enable, Facilitate, and Implement.
 - The Enable function focuses on providing technical support for developing policy, guidance, regulations, and standards.

- The Facilitate function promotes knowledge and resource sharing through a global network and convenes experts for developing deliverables.
- The Implement function supports countries in adopting evidence-based AI for health programs to strengthen health systems and services.
- Project Status: Ongoing
- Project Start Year: 2024
- AI Approach: Framework/Strategy/Methodology Formation
- Partnership: World Health Organization, World Intellectual Property Organization
- Project Website (links): <https://giai4h.org>
- Contact Information: Simao Campos (simao.campos@itu.int), Secretariat (tsbfgai4h@itu.int)

Project 9: Focus Group on AI for autonomous and assisted driving (FG-AI4AD)

- Project Description: The [ITU Focus Group on AI for autonomous and assisted driving \(FG-AI4AD\)](#) supports standardization activities for services and applications enabled by AI systems in autonomous and assisted driving. FG-AI4AD studied the behavioural evaluation of AI (when it is responsible for the dynamic driving task of a vehicle), in accordance with the 1949 and 1968 Convention on Road Traffic of the UNECE Global Forum for Road Safety.

To build public trust it is fundamental that the performance of AI on our road meets, or exceeds, the performance of a competent and careful human driver. The FG aimed to create international harmonisation on the definition of a minimal performance threshold for these AI systems (such as AI as a Driver). This work has the potential to facilitate adoption of AI on our roads and aims to reducing road injuries, which are already the leading cause of death for children and young adults aged 5–29 years (more so than HIV and tuberculosis). In fact, AI can play a significant role to reduce 1.3 million road deaths and 25 million injuries (SDG 3.6) occurring each year, whilst also encouraging safe, affordable, accessible and sustainable transport systems (SDG 11.2). However, the widespread and socially acceptable deployment of AI on our roads is dependent upon technology achieving public trust. The Focus Group has raised attention from public and private entities and is becoming a popular forum for discussion. The Group concluded its activities in September 2022. During its mandate FG-AI4AD has developed three deliverables, which were transferred to ITU-T SG16 for further deliberation:

- "Automated driving safety data protocol – Specification"
- "Automated driving safety data protocol – Ethical and legal considerations of continual monitoring g"
- "Automated driving safety data protocol – Practical demonstrators"

See: <https://www.itu.int/en/ITU-T/ITS/standardization/Pages/sg16.aspx>

The Focus Group also pioneered the discussion on what is referred to as the "[The Molly Problem](#)".

AI for Road Safety initiative: ITU, the UN Secretary-General's Special Envoy for Road Safety, and the Office of the UN Envoy on Technology launched the new **AI for Road Safety initiative** in October 2021 to promote an AI-enhanced "safe system" approach to reduce fatalities based on six pillars: road safety management, safer roads and mobility, safer vehicles, safer road users, post-crash response, and speed control.

The AI for Road Safety initiative is in line with the UN General Assembly Resolution (UN A/RES/74/299) on Improving global Road Safety, which highlights the role of innovative automotive and digital technologies, as well as in line with the UN Secretary General's roadmap on digital cooperation. The initiative also supports achieving the UN SDG target 3.6 to halve by 2030 the number of global deaths and injuries from road traffic accidents,

and the SDG Goal 11.2 to provide access to safe, affordable, accessible and sustainable transport systems for all by 2030.

- Project Start Year: 2019
- Project End Year: 2022
- Project Domain: Vehicles
- AI Approach: Framework/Strategy/Methodology Formation
- Project Website (links): <https://www.itu.int/en/ITU-T/ITS/AIRoadSafety/Pages/default.aspx>
- Contact Information: Stefan Polidori (stefano.polidori@itu.int)

Project 10: Focus Group on Environmental Efficiency for AI and other Emerging Technologies (FG AI4EE)

- Project Description: The [ITU Focus Group on Environmental Efficiency for AI and other Emerging Technologies \(FG AI4EE\)](#) is working to provide guidance on the environmentally efficient operation of emerging technologies. Additionally, this project seeks to study the impact of these technologies on the ecological/environmental feasibility of the broader ICT ecosystem by exploring AI, increasing automation and smart manufacturing. The group's work also supports ITU's ongoing research regarding the environmental requirements of IMT-2020 (5G) systems. FG-AI4EE has worked on over [20 deliverables](#) which cover topics related to requirements, assessment, measurement and implementation guidelines concerning the environmental efficiency of AI and other emerging technologies. Participation is open; there are no membership requirements. The Group concluded its work in December 2022.
- Project Start Year: 2019
- Project End Year: 2022
- Project Domain: Environment, Energy Efficiency
- AI Approach: Framework/Strategy/Methodology Formation
- Project Website (links): <https://www.itu.int/en/ITU-T/focusgroups/ai4ee>
- Contact Information: Charlyne Restivo, (charlyne.restivo@itu.int)

Project 11: Focus Group AI for Natural Disaster Management (FG-AI4NDM)

- Project Description: The Focus Group on AI for Natural Disaster Management (FG-AI4NDM) capitalizes on the growing interest and novelty of AI in the field of natural disaster management to help lay the groundwork for best practices in the use of AI for: assisting with data collection and handling, improving modelling across spatiotemporal scales, and providing effective communication.
- To achieve these objectives, FG-AI4NDM will develop a community of engaged stakeholders and experts and build on past progress made by ITU in this domain.
- Participation in the Focus Group is open to all interested stakeholders
- Project Start Year: 2020
- Project End Year: 2024
- Project Domain: Disaster Management
- AI Approach: Framework/Strategy/Methodology Formation
- Partnership: WMO and UN Environment
- Project Website (links): <https://www.itu.int/en/ITU-T/focusgroups/ai4ndm>
- Contact Information: Mythili Menon (mythili.menon@itu.int)

Project 12: Focus Group on AI and IoT for Digital Agriculture (FG-AI4A)

- **Project Description:** To address the core challenges and opportunities within the agricultural sector, the Focus Group on Artificial Intelligence (AI) and Internet of Things (IoT) for Digital Agriculture (FG-AI4A), explores the potential of emerging technologies including AI and IoT in supporting data acquisition and handling, improving modelling from a growing volume of agricultural and geospatial data, and providing effective communication for interventions related to the optimization of agricultural production processes. The Focus Group will also examine key concepts, and relevant gaps in current standardization landscape related to agriculture, and will underscore the best practices and barriers related to the use of AI and IoT-based technologies within the agricultural domain.

To achieve these objectives, FG-AI4A cooperates closely with FAO converging multiple stakeholders and experts from across the globe, serving as an open platform to explore the potential of AI and IoT to support innovative practices for agricultural production processes.

- **Project Status:** Concluded
- **Project Start Year:** 2021
- **Project End Year:** 2024
- **Project Domain:** Agriculture, Smart Cities, Smart Communities, Sustainable Development
- **AI Approach:** Framework/Strategy/Methodology Formation
- **Partnership:** FAO
- **Project Website (links):** <https://www.itu.int/en/ITU-T/focusgroups/ai4a>
- **Contact Information:** Mythili Menon (mythili.menon@itu.int)

Project 13: Focus Group on metaverse (FG-MV)

- **Project Description:** Metaverse has become one disruptive area of innovation with great potential to change our economy, way of living and communicating and society. In this nascent phase of the metaverse, the industry has not converged towards common terms and definitions. The metaverse concept has attracted considerable public attention.

The ITU-T Focus Group on metaverse was established in December 2022. The group analysed the technical requirements of the metaverse to identify fundamental enabling technologies in areas from multimedia and network optimization to digital currencies, Internet of Things, digital twins, and environmental sustainability.

It also provided a collaboration platform for dialogue, for identifying stakeholders with whom ITU-T could collaborate, and for enabling the inclusion of non-members to contribute to the technical pre-standardization work. The Focus Group work was enriched with the identification of relevant use cases.

To stimulate global dialogue on metaverse, a series of ITU Forum on Embracing the metaverse was held along with the Focus Group meetings.

- **Department/Division:** Telecommunication Standardization Bureau (ITU)
- **Project Status:** Concluded
- **Project Domain:** Metaverse, AI and virtual worlds
- **Project Start Year:** 2023
- **Project End Year:** 2024
- **Related Sustainable Development Goals:** Potentially all 17 SDGs
- **Relevant Links and Multimedia:**
 - FG-MV webpage: <https://www.itu.int/en/ITU-T/focusgroups/mv>
 - Press release: <https://www.itu.int/en/mediacentre/Pages/PR-2023-01-19-TSB-Focus-Group-metaverse.aspx>

- ITU metaverse activities: <https://www.itu.int/metaverse/>
 - ITU metaverse related events: <https://www.itu.int/metaverse/meetings-events/>
 - Publications on metaverse: <https://www.itu.int/metaverse/publications/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 14: Focus Group on AI-Native Networking (FG-AINN)

- Project Description: The ITU-T Focus Group on AI-Native Networks (FG-AINN) was established by ITU-T Study Group 13 in July 2024 and aims to explore and define the fundamental architectural and operational aspects required to fully integrate artificial intelligence into network systems. Rather than treating AI as an add-on component, the focus is on developing AI-native networks – a new paradigm where AI is deeply embedded within the core of network architecture, enabling unprecedented levels of automation, optimization, and intelligence. This focus group represents a foundational step toward shaping the future of telecommunications networks through AI integration.
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: AI, ML, Future Networks, 5G/6G
- Website (links): <https://www.itu.int/en/ITU-T/focusgroups/ainn/Pages/default.aspx>
- Contact Information: Thomas Basikolo (thomas.basikolo@itu.int)

Project 15: Global Initiative on AI and Data Commons

- Project Description: The [Global Initiative on AI and Data Commons](#) is a program and collaborative platform to support the implementation of beneficial AI based solutions to accelerate progress towards the 2030 Sustainable Development Goals. A [Roundtable on the Global Initiative on AI and Data Commons](#) was convened at ITU headquarters on 30-31 January 2020, attended by around 100 participants (including AI specialists, data owners, and infrastructure providers from the private sector, academia, governments, UN agencies and standards bodies). The roundtable highlighted the need for the Global Initiative to maximize collaboration in order to:
 - Match problem owners with providers of solutions using AI and data;
 - Scale and sustain AI-based projects;
 - Make available and accessible capabilities, resources, datasets, know-how, guidelines, frameworks, standards as a common good.

At the roundtable, two working groups (on repositories and on marketplaces) were established and one project was identified (Global AI services platform, initially introduced at an AI for Good Global Summit) to progress toward achieving the mission of the Global Initiative, summarized [here](#). On 16 July 2020, as part of the AI for Good Webinar series, the Global Initiative launched the [Global Data Pledge project](#) to help identify, support and make available data as a common global resource.

The Global Initiative on AI and Data Commons is now initiating a public collaborative effort named “[Project Resilience](#)”. The vision, in the continuity of efforts towards AI for the common good, is to create a public AI service where a global community of innovators and thought leaders can enhance and utilize a collection of data and AI approaches both in the context of the current pandemic and for similar future challenges. The goal is to collaboratively design and build an open AI system that could inform and help tackle global decision-augmentation problems.

- Project Status: Ongoing
- Project Start Year: 2020
- AI Approach: Framework/Strategy/Methodology Formation

- Project Website (links): <https://www.itu.int/en/ITU-T/extcoop/ai-data-commons>
- Contact Information: Martin Adolph (martin.adolph@itu.int)

Project 16: AI/ML Competitions ("Challenges")

- **Project Description:** Since 2020, thousands of students and professionals are competing in the ITU AI/Machine Learning Challenges. The [ITU AI/ML Challenge](#) is a flagship collaborative platform that enables students, researchers, and developers to design and test AI models in various real-world use cases including communication networks, Geospatial AI and other domains. Through real-world problem statements and open datasets, participants are guided to explore the frontier of machine learning in ICT infrastructure, strengthening their technical capacities while contributing to ITU's standards development work. In 2024, there were 13 challenge problem statements and a total of 4196 participants joined these problem statements, contributing more than 30'000 submissions.

Through the Challenge, ITU encourages and supports the growing community driving the integration of AI/ML in networks and at the same time enhances the community driving standardization work for AI/ML, creating new opportunities for industry and academia to influence the evolution of ITU standards. In the GeoAI Challenges, participants attempt to address the UN Sustainable Development Goals (SDGs) related problems using real-world data. In addition, participants will acquire hands-on experience in AI/ML in areas relevant to solving SDGs and compete for prizes, recognition, and certificates. A description of the GeoAI challenges and the GeoAI Discovery series, since its inception in 2021 is available at https://www.itu.int/dms_pub/itu-s/opb/jnl/S-JNL-VOL6.ISSUE1-2025-PDF-E.pdf. Participants are offered free computing resources (GPUs!) from ITU to train and optimize their machine learning models. The solutions can be accessed in several repositories on the Challenge GitHub;

AI/ML in 5G Challenge: <https://github.com/ITU-AI-ML-in-5G-Challenge..>

GeoAI Challenge: <https://github.com/ITU-GeoAI-Challenge>

Most of the solutions submitted to the Challenge are innovative as well as improvements with respect to the baselines. To share the solutions with the larger community, every-year, ITU issues a call for papers for a special issue on AI and machine learning solutions in 5G and future networks of the ITU Journal on Future and Evolving Technologies (ITU J-FET). In this special issue, hosts (i.e., the originators of the problem statements) and participants of the ITU Challenge submit their solutions and learnings for publication. This special issue is dedicated to exploration of Artificial Intelligence and Machine Learning in 5G and future networks as well as enabling technologies and tools in networks.

- Project Type/Output: Datasets, Code, Papers, Standards
"AI Challenges" are competitions where a "host" defines a problem statement and provides a dataset. Anyone in the world is invited to solve this problem statement using machine learning.
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: each competition has a 12-months cycle.
- Project updates: The ITU AI/Machine Learning in 5G Challenge is running for the 6th year in 2025. GeoAI and tinyML challenges are planned to run for the 4th time in 2025.
- Project Domain: Agriculture, Environment, Energy, Gender, Health, Poverty, Telecommunications, and Weather
- Data Source: Data sets provided are real data, synthetic data or openly available data. Data for the ITU AI/Machine Learning in 5G Challenge use network data, i.e., data which occur in a communications network. Data for the GeoAI Challenge can be any data with a location component, i.a. satellite data, user generated content (like data from social media), sensor data or underwater data.
- Links to the challenges:

- <https://aiforgood.itu.int/about/aiml-in-5g-challenge/>
- <https://aiforgood.itu.int/about-ai-for-good/geoai-challenge/>
- <https://aiforgood.itu.int/about-ai-for-good/tinyml-challenge/>
- Data is publicly available: Yes
- Technology/Platform: To solve the problem statementstoolsets can be used provided by ITU or problem statement hosts.
- Related Sustainable Development Goals (SDGs): All the SDGs
- Partnerships:
 - UN Partners: UN partners are UNGGIM (United Nations Global Geospatial Information Management) Academic Network, UNGGIM Geospatial Network, UN Open GIS (Geographic Information System) Initiatives, FAO, UNICEF, UNODC, UNGSC, WMO, and IAEA
 - Private Sector: see <https://aiforgood.itu.int/about/aiml-in-5g-challenge/> for private and academic partners of the ITU AI/Machine Learning in 5G Challenge
 - Academia: see <https://aiforgood.itu.int/about/aiml-in-5g-challenge/> for private and academic partners of the ITU AI/Machine Learning in 5G Challenge
- Contact information: Thomas Basikolo (thomas.basikolo@itu.int); Andrea Manara for GeoAI (andrea.manara@itu.int)

Project 17: United for Smart Sustainable Cities (U4SSC)

- Project Description: The United for Smart Sustainable Cities (U4SSC) is a global UN collaboration coordinated by ITU, UNECE, and UNEP and supported by a wide network of partners including 19 UN bodies. U4SSC serves as a dynamic international platform for the exchange of knowledge, best practices, and policy innovation— uniting cities, governments, academia, industry, and civil society to co-create people-centred, digitally inclusive, and climate resilient cities and communities to advance the Sustainable Development Goals, the Global Digital Compact, and the Pact for the Future. The initiative aims to: Generate guidelines, policies and frameworks for the integration of ICTs and emerging technologies into urban operations, based on the SDGs, international standards and urban key performance indicators (KPIs); and help streamline smart sustainable cities action plans and establish best practices with feasible targets that urban development stakeholders are encouraged to meet. The topics of this phase of U4SSC includes city platforms, urban economic resilience at the city-level, artificial intelligence in cities, digital wellbeing, future foresight, sustainable digital transformation in buildings and urban energy, digital public infrastructure for cities, social-cultural sustainability in people-centred city governance and digital transformation for people-oriented cities. In the context of the Thematic Group on AI in Cities, a deliverable was developed to explore how AI-based innovations can be effectively deployed in the urban domain, while laying forth a framework which encompasses the governance principles for successfully implementing AI in cities in line with the Sustainable Development Goals (SDGs). The Thematic Group on AI in Cities is also working on autonomous cities, AI-Driven KPIs Measurement and FAIR Cities – Foster AI for inclusive and responsible cities. The initiative delivers policy guidelines and training materials through the work on specific outputs elaborated via regular e-meetings and one main meeting once per year. U4SSC stakeholders also elaborated a set of Key Performance Indicators (KPIs) for smart sustainable cities which includes 91 indicators (core and advanced) divided in the three dimensions of sustainable development: economy, environment, and society and culture. The indicators are fully aligned with the Sustainable Development Goals (SDGs) and serve as a tool for evidence-based decision making, self-assessments, progress monitoring and achieving the SDGs at the local-level. They are being implemented by 200 cities of different sizes and development worldwide.

- Department/Division: Telecommunication Standardization Bureau (ITU), Housing and Land Management, Forests, Land and Housing Division (UNECE), United Nations Environment Programme (UNEP)
- Project Type/Output: Multi-agency partnership
- Project Status: Ongoing
- Project Domain: Sustainable urban development and digital transformation
- Project Start Year: 2016
- Related Sustainable Development Goals: SDG 11 – Sustainable Cities and Communities; SDG 17 – Partnership for the Goal
- Partnerships:
 - UN Partners: ITU, UNECE, UN Habitat, CBD, ECLAC, FAO, UNDESA, UNDP, UNECA, UNESCO, UNEP, UNEP-FI, UNFCCC, UNIDO, UNOP, UNU-EGOV, UN-Women, UN Tourism and WMO
- Relevant Links and Multimedia:
 - U4SSC webpage: <https://u4ssc.itu.int/>
 - U4SSC publications: <https://u4ssc.itu.int/publications/>
 - U4SSC KPIs project: <https://u4ssc.itu.int/u4ssc-kpi/>
 - U4SSC KPIs publications: <https://u4ssc.itu.int/u4ssc-kpis-report/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int), Tea Aulavuo (tea.aulavuo@un.org), Gulnara Roll (gulnara.roll@un.org)

Project 18: Digital Transformation Dialogues (DTD)

- Project Description: The International Telecommunication Union (ITU) is organizing the Digital Transformation Dialogues (DTD). It offers a dynamic platform to facilitate a deeper understanding of emerging technologies to reshape traditional processes, improve operational efficiency and unlock new possibilities for innovation and standardization. The Digital Transformation Dialogues seeks to address evolving themes associated with digital transformation, foster cooperation among city stakeholders, and examine the role of standardization within this domain. The Digital Transformation Dialogues serve as a unique platform for highlighting the latest work and outcomes of the ITU-T Focus Groups, Initiatives and ITU-T Study Groups. The Digital Transformation Dialogues will encompass:
 - Digital Transformation Webinars
 - Fireside Chats
 - Ask the expert: ITU-T Standard in Focus Sessions
- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing
- Project Domain: Digital Transformation, AI, emerging technologies
- Project Start Year: 2021
- Related Sustainable Development Goals: All 17 SDGs
- Partnerships: Over 50+ partners which includes UN entities
- Relevant Links and Multimedia:
 - DTD webpage: <https://www.itu.int/cities/digitaltransformationdialogues/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 19: AI in radiocommunications

- AI could be used during the process of making and distributing television and radio content. It is now being used to optimise workflows for broadcasting programme making, to improve audio and visual quality evaluation, to efficiently utilize the frequency spectrum in television and radio distribution and recently even to create new programmes by mining archives as well as automatically targeting content to specific audiences or individuals. For example, AI is being used for extracting content from vast archives; automatically localising content for international distribution; and generating access services such as captioning, audio description, text to speech and signing far faster and far more accurately than could be achieved in the past.
AI could be used for spectrum management and radio monitoring activities. For example, deploying machine learning technology for methodologies for assessing or predicting spectrum availability; introducing big data processing and other AI technologies in the automation of spectrum management and radio monitoring activities.
- Project Domain: Communication
- AI Approach: Framework/Strategy/Methodology Formation
- Project Website (links): <https://www.itu.int/en/action/ai/emerging-radio-technologies/Pages/default.aspx>
- Contact Information: Ruoting Chang (ruoting.chang@itu.int)

Project 20: Toolkit on Digital Transformation for People-Oriented Cities and Communities

- Project Description: The International Telecommunication Union (ITU) together with other 13 UN entities, have developed the Toolkit on Digital Transformation for People-Oriented Cities and Communities. The Toolkit on Digital Transformation for People-Oriented Cities and Communities is a comprehensive guide designed to help cities and communities leverage digital technologies for sustainable development. It provides practical strategies and tools to address challenges and harness opportunities in the digital age. 12 modules have been developed covering the topics from Smart Sustainable City Governance to Smart Manufacturing.
- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing
- Project Domain: Digital Transformation, AI, emerging technologies
- Project Start Year: 2022
- Related Sustainable Development Goals: All 17 SDGs
- Partnerships: ITU in close collaboration with UNIDO, IEA, FAO, UNDESA, UN-Habitat, IWRA, UNECE, WMO, UNDP, UNU-EGOV, UNEP DTU, Copenhagen Center of Energy Efficiency (CCEE), United 4 Efficiency (U4E)
- Relevant Links and Multimedia:
 - Toolkit webpage: <https://toolkit-dt4c.itu.int/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 21: Digital Transformation Resource Hub

- Project Description: The Digital Transformation Resource Hub collates a range of quality publications on various digital transformation topics such as smart sustainable cities, AI, IoT, blockchain, digital twin, metaverse, virtual worlds, digital public infrastructure and digital transformation trends.
- Department/Division: Telecommunication Standardization Bureau (ITU)
- Project Status: Ongoing

- Project Domain: Digital Transformation, AI, emerging technologies
- Project Start Year: 2023
- Related Sustainable Development Goals: All 17 SDGs
- Relevant Links and Multimedia:
 - Digital Transformation Resource Hub webpage: <https://www.itu.int/cities/dt-resource-hub/>
- Contact information: Cristina Bueti (cristina.bueti@itu.int)

Project 22: Artificial Intelligence Landscape Survey

- Project Description: Artificial Intelligence (AI) is introducing new ways of analysing, disseminating and even generating information, and reshaping entire economic sectors of activity. In addition to new opportunities, AI is bringing significant potential risks for policy makers and regulators to consider. Pursuant to Plenipotentiary Resolution 214 (Bucharest, 2022), ITU is seeking to gather more information about AI-related policy and regulatory initiatives of ITU Member States and how these efforts align with their ongoing Digital Transformation endeavours. The results of this survey will complement other ongoing data collection initiatives (within and beyond ITU), support the assessment of Member States readiness in the field of AI and serve as a valuable public resource for ITU and other UN agencies in fostering meaningful partnerships to support countries in their ongoing AI-related efforts.
- Project Type: Survey
- Project Status: Ongoing
- Project Start Year: 2023
- Related Sustainable Development Goals (SDGs): All SDGs
- Project Website (links): <https://aiforgood.itu.int/ai-landscape-survey/>
- Contact Information: Jin Cui (jin.cui@itu.int), Sadhvi Saran (sadhvi.saran@itu.int)

Project 23: AI Sub-Group of Early Warnings for All Initiative

- Project Description: Under the EW4All initiative, ITU, together with the other lead partners WMO, UNDRR and IFRCs have created an [AI sub-group](#) that aims to leverage AI to build more resilient and effective early warning systems. The AI sub-group focuses on adding structure to the application of AI to support the attainment of the EW4All Initiative objectives. AI is mentioned as one of the outputs of Pillar 3 in the EW4All Executive Action Plan, launched in November 2022: "Leverage artificial intelligence to support the development of 'client' profiles and scale the dissemination of action alerts." AI is also featured under Pillar 1's strategic outcome seven on Innovation for Risk Knowledge; however, developments in AI provide opportunities to transform the practice of disaster management and support the implementation of all Pillars in the Early Warning System value chain. The sub-group has organised a number of workshops, including during the 2024 [AI for Good Global Summit](#), to demonstrate AI use cases for enhancing multi-hazard early warning systems, fostering dialogue, collaboration, and engagement with countries eager to pilot innovative AI applications. ITU, together with Microsoft AI for Good, the Institute for Health Metrics and Evaluation (IHME) of the University of Washington, and Planet Labs, utilizes advanced artificial intelligence to accurately identify and quantify populations lacking connectivity. This project has combined high-resolution precision population mapping with advanced connectivity analysis to measure—for the first time—the populations who remain unconnected and are consequently at risk of not receiving critical emergency information. The results of this initiative will significantly enhance ITU's targeted early warning capabilities and intervention strategies. For example, results from pilot countries such as Fiji, Tonga and Vanuatu, will identify intervention needs and tailor early warning strategies accordingly.

- Project Start Year: 2023
- Project Domain: Emergency Telecommunications, Climate Change, Disaster Risk, Early Warnings
- AI Approach: Framework/Applications/Use Cases
- Partnership: WMO, UNDRR, IFRC, UNDP, UNFCCC, Google, Microsoft, GSMA, Group on Earth Observations
- Project Website (links): <https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Pages/AI-Sub-Group-EW4All-.aspx>
- Contact Information: Vanessa Gray (vanessa.gray@itu.int)

Project 24: AI/ML solutions for Climate Action

- Project Description: Climate change is one of the biggest environmental challenges affecting the planet and humanity. The consequences of climate change are resulting in broad and deep social and economic consequences, impacting the lives and livelihoods of billions of people. The United Nations (UN) are playing a leading role in the global effort to fight and address climate change through a range of activities, initiatives and programs. The combination of ICTs and AI technologies offer a promising approach to tackle the climate crisis by reducing emissions, increasing resource use efficiency, and building resilience to the impacts of climate change.
The project to crowdsource innovative AI solutions was supported by, the International Atomic Energy Agency (IAEA), the UN Food and Agriculture Organization (FAO), the UN Educational, and Scientific and Cultural Organization (UNESCO). Top solutions and projects pitched their solutions at the 2023 United Nations Climate Change Conference (COP28), in Dubai, United Arab Emirates, 30 November - 12 December 2023 in the context of the Green Digital Action. • Project Start Year: 2023
- Project Domain: Climate Change
- Partnership: IAEA, FAO, UNESCO
- Project Website (links): <https://aiforgood.itu.int/about-ai-for-good/aiml-solutions-for-climate-change/>
- Contact Information: Thomas Basikolo (thomas.basikolo@itu.int)

Project 25: Artificial Intelligence & Machine Learning Capacity Building

- Project Description: The ITU Telecommunication Standardization Bureau (TSB) launched an AI capacity building project aimed at strengthening AI and ML capacities in developing countries. This project is a part of TSB's broader efforts to close the digital divide and enhance technological competencies globally, particularly in regions that are technologically underserved. At the core of this project is the mentoring activities, which pair AI experts with local practitioners in developing countries to provide training, guidance, and knowledge exchange. These mentorship programs are tailored to address the specific needs and challenges of each region, ensuring that the benefits of AI and ML technologies are accessible and relevant to local contexts.
In addition, the project also contributes to the series of in-person workshops hosted by the Science, Technology and Innovation Unit of the International Centre for Theoretical Physics (ICTP). These workshops focus on tinyML technology—highly efficient ML models that can run on low-power devices at the edge of the network. TinyML is particularly suited for developing countries due to its low resource requirements and its ability to operate independently of extensive cloud infrastructure, making advanced AI applications feasible in remote and low-bandwidth environments. These workshops includes training on tinyML technologies and use case relevant for SDGs. Participants from developing countries are equipped with skills necessary in their respective communities.
The ITU's initiative not only aims to educate and train individuals in these emerging technologies but also seeks to create a sustainable ecosystem where local developers can

continue innovating with AI and ML. Through this project, ITU supports the implementation of practical, impactful AI solutions that can lead to significant advancements in healthcare, agriculture, education, and other critical sectors in developing regions. The goal is to empower these communities with the tools and knowledge necessary to harness the potential of AI and ML for their development and prosperity.

- Project Status: Ongoing
- Project Start Year: 2023
- Related Sustainable Development Goals (SDGs): All SDGs
- Project related links:
 - <https://indico.ictp.it/event/10185/overview>
 - <https://tinyml.seas.harvard.edu/SciTinyML-23/>
- Contact Information: Thomas Basikolo (thomas.basikolo@itu.int), Marco Zennaro (mzennaro@ictp.it)

Project 26: Guidelines for staff on the Responsible use of GenAI in content creation

- Project Description: This project is about developing guidelines for ITU staff on the responsible use of genAI in content creation. UN system peers have expressed interest in collaborating to potentially elevate the guidelines to UN system use. Artificial intelligence (AI) has the potential to advance global prosperity by tackling critical issues that align with the United Nations Sustainable Development Goals (SDGs). Novel AI systems are continuously introduced to enhance creativity, innovation and efficiency of content creation and to elevate the overall performance of communications. Generative AI (genAI) is a field in AI that focuses on creating content such as text, images, sound and video. genAI systems also bring a spectrum of risks and challenges specific to content creation. These include the potential for malevolent use of genAI in manipulating or distorting information and images, challenges in safeguarding privacy and protecting personal data and ensuring the integrity of the information disseminated. If not properly managed, these risks could harm the communicator/communicating organization, users and society. What are the guardrails to put in place and to observe for maximum benefit and minimum harm?
- Project Type/Output: Guidelines for ITU/UN staff
- Project Status: Ongoing
- Project Domain: AI, ethics and governance
- Project Start Year: 2024
- Relevant Links and Multimedia:
 - (Adapting the principles laid out in the following document to content creation) Principles for the Ethical Use of Artificial Intelligence in the United Nations System: https://unsceb.org/sites/default/files/2022-09/Principles%20for%20the%20Ethical%20Use%20of%20AI%20in%20the%20UN%20System_1.pdf
- Contact information: Monika Gehner (monika.gehner@itu.int)

Project 27: Demystifying Digital series

- Project Description: The ITU Demystifying Digital series aims to demystify technology for a predominantly non-technical audience. It brings together ITU staff and experts with members of the diplomatic community, facilitating a better understanding of emerging trends and fostering discussions on their potential impact. These informative sessions are hosted by Permanent Missions upon their request. The topics of interest are identified by the host. So far, the ITU has successfully conducted

Demystifying Digital sessions on the Metaverse, Sustainable and Green Standards, and Quantum, with several more planned for the upcoming months.

Past sessions include:

- "WSIS+20 & AI for Good Summit", Permanent Mission of the Dominican Republic, March 2024
- "How the Internet Works", ITU and ICANN (Geneva and New York), January 2024
- "Global Digital Compact", ITU and GDC Co-Facilitators, December 2023
- "Digital Skills for Sustainable Development", Permanent Mission of Jamaica, November 2023
- "Demystifying the Citiverse and Smart Cities", EU Mission, September 2023
- "ITU Specific Support Programmes (SIDs), Activities and Initiatives", Commonwealth Small State Office, July 2023
- "WRC-23", Permanent Mission of Canada, June 2023
- "Quantum", Permanent Mission of Denmark in Geneva, April 2023
- Project Type: Seminar/meeting
- Project Status: Ongoing
- Project Start Year: 2023
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership: Permanent Missions of member states
- Project Website (links): <https://www.itu.int/hub/membership/our-members/permanent-missions-in-geneva/demystifying-digital-series/>
- Contact Information: [Selemani](mailto:seleman.kinyunyu@itu.int) Kinyunyu (seleman.kinyunyu@itu.int)

Project 28: Learning Labs Series

- Project Description: The ITU LearningLabs initiative provides experiential hands-on learning opportunities for ITU staff on new and emerging technologies, in partnership with external experts, with a view to facilitating (a) use of such technologies by staff in the day-to-day work; and (b) research and analysis relevant to ITU's activities. LearningLabs is part of the emerging trends observatory, which also involves: (a) analysing and showcasing technology megatrends and potential societal impact; (b) demystifying technology for a largely non-technical audience; and (c) developing a network of academics to serve as a key resource for ITU thought leadership.

Past sessions include:

- "Microsoft on ChatGPT", Microsoft, May 2023
- "Space, the next generation", Aerospace, May 2023
- "Cybersecurity", Saudi National Cybersecurity Authority (NCA), September 2023.
- "Generative AI Enablement", Amazon Web Services (AWS), April 2024.
- Project Type: Seminar/meeting
- Project Status: Ongoing
- Project Start Year: 2023
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership: Microsoft, Aerospace, Saudi National Cybersecurity Authority, Amazon Web Services
- Contact Information: [Gitanjali](mailto:Gitanjali.sah@itu.int) Sah (Gitanjali.sah@itu.int)

Project 29: ITU Academy courses related to Artificial Intelligence

- Project Description: The ITU Academy offers a range of training courses and workshops designed to build capacity in Artificial Intelligence (AI) and its applications across sectors. These activities support policymakers, regulators, professionals, and other stakeholders in understanding and leveraging AI technologies responsibly and effectively. Developed by ITU or in collaboration with global partners, the courses address technical foundations, policy considerations, ethical implications, and emerging trends to ensure inclusive and sustainable AI adoption. In 2025, these courses and workshop included:
 - [Artificial intelligence for the public sector](#) (online instructor-led) & [Artificial intelligence for the public sector](#) (face-to-face)
 - [AI-enabled digital services](#)
 - [Key aspects and governance of Internet of things, big data and artificial intelligence](#)
 - [Technical, business and regulatory aspects of Artificial Intelligence and Metaverse for future Internet and telecoms](#)
 - Series of workshops on “Introduction to Artificial Intelligence”, held in Jordan, Kazakhstan, India, Paraguay, Kenya and Malta.
 - Series of workshops in the Asia-Pacific region on [AI standards for increasing the efficiency of telecommunications/ICTs: shaping the future responsibly](#)
 - [Secure government communications in an AI and post-Quantum era](#) for SIDS and LLDCs.
 - [Governance of Generative AI and other emerging technologies in the creative sectors](#)
 - [AI governance in practice: developing secure and innovative frameworks](#)
 - [Future fixed and mobile broadband internet, cloud computing and IoT/AI](#)
- Project Type: Training courses and workshops
- Project Status: Ongoing
- Project Start Year: 2019
- Related Sustainable Development Goals (SDGs): SDGs 4, 9, 16 and 17.
- Partnership: ITU Academy Training Centres, UNDP, UNESCO, Global Gateway initiative of the European Union, EY
- Contact Information: ituacademy@itu.int

Project 30: GovStack Initiative

- Project Description: GovStack Architecture Framework guides government investment in establishing their customized digital government public infrastructure and technology stack, which is an integrated set of digital capabilities, e.g., digital identity, digital payments, information exchange, registries, consent, e-signature, GIS, digital wallets, AI models in collaboration with OSEE Project, etc. that constitute a digital infrastructure or foundation for digital transformation and digital economy. The Stack powers the whole of government with a set of shared digital services that any government agency or department can use to build quickly and at a fraction of the cost of new government digital services that are trusted, interoperable, and scalable across different sectors without having to design, test and operate the underlying systems and infrastructure themselves. GovStack structures its offerings around three areas:

GovSpecs: building blocks form the heart of GovStack. These standards for interoperable software components are published open source and can be used by governments to procure secure and reusable software. GovStack offers twelve building blocks to build Digital Public Infrastructure.

GovTest: prototyping is key for successful digital implementations. GovStack’s sandbox allows to experiment and prototype new services based on the Building Block approach.

GovLearn: digital online programs train civil servants and technical personnel on the Building Block approach. Different leaders' forums connect GovStack implementing countries and foster peer-to-peer learning in the field of digital public infrastructure. Women in GovTech Challenge and GovStack Architects trainings provide university credited specializations on GovStack approach.

GovStack engage with countries by identifying priority use cases on government services to be digitalized using GovStack approach. This year GovStack contributed with use cases to be part of the AI Hack 'Alntuition': Retrieval Augmented Generation (RAG) for Public Services and Administration Tasks organized by OSEE. The models resulted from the Hackathon will be integrated as AI building blocks in GovStack.

- Project Type: Capacity Building, Service Design and Delivery
- Project Status: Ongoing
- Project Start Year: 2019
- Related Sustainable Development Goals (SDGs): SDGs 16.
- Partnership: GIZ, Ministry of Foreign Affairs Estonia (EE), DIAL
- Contact Information: hani.eskandar@itu.int

Project 31: ITU Open Source Programme Office (OSPO)

- Project Description: Open-source software (OSS), explainable AI algorithms, open data, and open content (collectively referred to as "open-source technologies") can accelerate a country's digital transformation and therefore, its ability to achieve the SDGs.

A part of the Open Source Programme Office work (and in collaboration with the AI for Good), ITU BDT has launched a community challenge to promote the development of open-source Retrieval Augmented Generation (RAG) solutions optimised for the public sector: <https://zindi.africa/competitions/retrieval-augmented-generation-rag-for-public-services-and-administration-tasks>

Public sector institutions, such as government agencies and municipalities, manage critical services impacting citizens' lives, including administrative tasks like regulatory compliance monitoring, procurement management, certifications issuance, and public communication.

The efficiency of these services relies on streamlined processes. AI virtual assistants, powered by Large Language Model (LLM) applications, can aid in this by facilitating seamless interaction with data, providing procedural guidance, and automating workflows.

To be effective, Generative AI applications in the public sector must deliver contextualized responses. RAG enhances LLM-powered virtual assistants' capabilities, allowing efficient access to information from vast document repositories. This ensures accurate and contextually relevant responses, supporting both employees and citizens in their interactions with public sector information.

Around 170 participants (individuals and teams) have enrolled in the challenge.

The community challenge and knowledge exchange among stakeholders in the open-source ecosystem are anticipated to foster the development of open-source RAG solutions tailored for the public sector. These solutions would empower public institutions to harness AI effectively, thereby enhancing service delivery efficiency and quality for citizens.

- Project Start Year: 2023
- Project Domain: Digital Public Infrastructure
- Partnership: UNDP
- Project Website (links): [Open Source Ecosystem Enabler \(itu.int\)](https://open-source-ecosystem-enabler.itu.int)
- Contact Information: David Manset (david.manset@itu.int)

Project 32: ITU Open-Source Ecosystem Enabler (OSEE)

- Project Description: As part of the ITU Open Source Ecosystem Enabler (OSEE) project, ITU is promoting the integration of open-source solutions and strategies into national digital infrastructure, projects, and strategies, including open-source AI for public sector use cases. To raise awareness of available resources and to promote dialogue and experience exchange between a diverse range of stakeholders, a series of webinars have been organized:
 - Open-Source (generative) AI for Public Services Innovation (<https://aiforgood.itu.int/event/open-source-generative-ai-for-public-services-innovation/>);
 - Innovating Educations: Navigating Challenges in Open-Source (Generative) AI Integration (<https://aiforgood.itu.int/event/innovating-education-navigating-challenges-in-open-source-generative-ai-integration/>);
 - Alntuition: Unlocking Efficiency for Public Sector with Retrieval Augmented Generation Applications (<https://aiforgood.itu.int/event/aintuition-unlocking-efficiency-for-public-sector-with-retrieval-augmented-generation-applications/>).

The webinars have attracted stakeholders from public institutions, international organizations, NGOs, the private sector, and academia. The recordings of the webinars are available on the AI for Good platform.

- Project Start Year: 2023
- Project Domain: Digital Public Infrastructure
- Partnership: UNDP
- Project Website (links): [Open Source Ecosystem Enabler \(itu.int\)](https://open-source-ecosystem-enabler.itu.int)
- Contact Information: David Manset (david.manset@itu.int)

Project 33: Giga and AI

- Project Description: While much of the initial school data comes from government datasets, many lack comprehensive, accurate and up-to-date locations for all the schools within their borders. To overcome this challenge, Giga uses AI and ML algorithms that can identify accurate school locations in satellite imagery tiles.

Here are some of the structures that help AI determine school buildings. And through this technology, we were able to identify and map more than 29,000 schools in a handful of countries.

- Giga aims to develop a global database of school locations, in support of our goal to connect every school to the internet by 2030.
- We've developed ML models for school mapping for several countries, including Mongolia, Sudan, Colombia, Senegal and Ghana.
- Our ML models tend to achieve model performances (F1-score) > 90%
- High-resolution Satellite Images. Global high-resolution satellite images (60 cm/px) from Maxar made available with support from the US State Department.
- High Performance Computing Resources. High Performance Computing (HPC) clusters with NVIDIA GPU support from Dell allows us to run computationally intensive AI models.
- Experiment with different types of models and model architectures. Conduct hyperparameter tuning to identify the optimal configuration settings per model.
- Evaluate model performances using an independent test set and identifying opportunities to further improve the performance. Develop more precise locations, e.g. using class activation maps.
- Download nationwide Maxar satellite images and run the model on each image to generate school/non-school predictions.

- Validate the model outputs. This include re-confirming existing school locations, identifying and fixing erroneous school locations, and discovering previously unmapped schools.
- Project start year: 2018
- Project Domain: School connectivity (digital infrastructure)
- Partnership: ITU-UNICEF
- Related SDGs: SDG 4 & SDG 9
- Project Website (links): <https://projectconnect.unicef.org/map>
- Contact Information: Braden Phillips (braden.phillips@itu.int), Naroa Zurutuza (nzurutuza@unicef.org)

2. Related Sustainable Development Goals

All SDGs

3. Relevant Links

<https://www.itu.int/en/action/ai/Pages/default.aspx>

Contact Information: Mr Preetam Maloor, Head of Emerging Technologies Division (Preetam.maloor@itu.int)

Office of the United Nations High Commissioner for Human Rights



1. Description of Activities on AI

Project 1: Expert seminar on artificial intelligence and the right to privacy

Human Rights Council resolution 42/15 requested UN Human Rights to organize a one-day expert seminar to discuss how artificial intelligence, including profiling, automated decision-making and machine-learning technologies may, without proper safeguards, affect the enjoyment of the right to privacy. The seminar took place as a public online event over two half-days on 27/28 May 2020. One important area of discussion were the specific challenges for the right to privacy that the rapidly increasing use of AI brings about. The seminar also highlighted the key role that privacy plays in safeguarding other human rights affected by AI. It also articulated safeguards and processes that States, businesses and international organisations are required to put in place to promote and protect the right to privacy in the digital age.

- Project Type (Status): Full-fledged development (Framework/Strategy/Policy)
- Project Domain: Right to privacy
- AI Approach: Events
- Project Website (links): <https://www.ohchr.org/EN/Issues/DigitalAge/Pages/SeminarArtificialIntelligence.aspx>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 2: Report on artificial intelligence and the right to privacy

Human Rights Council resolution 42/15 also requested UN Human Rights to analyse the widespread use of artificial intelligence by States and businesses and their impact on the enjoyment of the right to privacy, as well as economic, social and cultural rights. The report calls for a ban on AI applications that are incompatible with international human rights law, and for moratoriums to be imposed on the sale and use of high-risk AI systems, including a ban on remote biometric systems, unless and until adequate safeguards are put in place to protect human rights. The report recommends that States and businesses conduct human rights due diligence throughout the entire life cycle of AI systems.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy, economic, social and cultural rights
- Project Website (links): www.undocs.org/A/HRC/48/31
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 3: Report on the right to privacy in the digital age

As a follow-up to the report on artificial intelligence and the right to privacy, published in September 2021, UN Human Rights submitted a report examining recent trends and challenges regarding the right to privacy and clarifying related human rights principles, safeguards and best practices. The report focuses, in particular, on: (a) the abuse of intrusive hacking tools; (b) the key role of encryption in ensuring the enjoyment of the right to privacy and other rights; and (c) wide-spread monitoring of public spaces, including with the increased capabilities using artificial intelligence. It highlights the risk of creating systems of pervasive surveillance and control that may undermine the development of vibrant and rights respecting societies.

- Project Type (Status): Report (Report)
- Project Domain: Right to privacy
- Project Website (links): <https://www.ohchr.org/en/documents/thematic-reports/ahrc5117-right-privacy-digital-age>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 4: Expert consultation and report on 1) the practical application of the Guiding Principles on Business and Human Rights on the activities of technology companies; and 2) technical standard-setting and human rights

Human Rights Council resolution 47/23 requested UN Human Rights to convene two expert consultations, to discuss the relationship between human rights and technical standard-setting processes for new and emerging digital technologies and the practical application of the Guiding Principles on Business and Human Rights (UNGPs) on the activities of technology companies, and to submit two reports. A virtual expert consultation was held on 7 and 8 March 2022 to discuss the practical application of the Guiding Principles on Business and Human Rights to the activities of technology companies, focusing on 1) the State duty to protect human rights; 2) the role of the UNGPs in tech policy and regulation; 3) the corporate responsibility to protect human rights; and 4) access to remedy. The report demonstrates the value and practical application of the UNGPs in preventing and addressing adverse impacts on human rights related to technology companies and provides a set of recommendations for States, technology companies, regional and international organizations, civil society, and the United Nations. The expert consultation and report on technical standard-setting and human rights was held in February 2023.

- Project Type (Status): Event and report on the practical application of the UNGPs (concluded in 2022) / Event and report on human rights and technical standard-setting (Completed in 2023)
- Project Domain: Human rights
- Project Website (links): https://www.ohchr.org/en/business-and-human-rights_and_OHCHR_consultation_on_human_rights_and_technical_standard-setting_processes_for_new_and_emerging_digital_technologies | OHCHR
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 5: Report on peaceful protests and new technologies

In its resolution 38/11, the Human Rights Council requested the United Nations High Commissioner for Human Rights to prepare a thematic report on new technologies, including information and communications technology (ICT), and their impact on the promotion and protection of human rights in the context of assemblies, including peaceful protests. The report,

presented at the 44th session of the Human Rights Council highlights not only the character of new digital technologies as enablers of the enjoyment of human rights but also delves into issues linked to various surveillance technologies, including AI-based surveillance (such as facial recognition) of organizers of and participants in peaceful assemblies. Among other recommendations, it calls for a moratorium on the use of facial recognition in the context of peaceful assemblies.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy
- Project Website (links): www.undocs.org/A/HRC/44/24
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 6: Report on Human Rights and Technical standard-setting processes for new and emerging digital technologies

In its resolution 54/23, the Human Rights Council requested the United Nations High Commissioner for Human Rights to prepare a report on the relationship between technical standard-setting processes and human rights. The report provides an overview of the technical standard-setting landscape, a discussion of the relevance of technical standards, including AI standards, for the enjoyment of human rights, and an examination of the challenges to integrating human rights considerations into technical standard-setting processes. The report presents a set of recommendations to Member-States, standard-setting organizations, for the effective integration of human rights considerations into technical standard-setting processes.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy
- Project Website (links): The report will become available here: [A/HRC/53/42: Human rights and technical standard-setting processes for new and emerging digital technologies Report of the Office of the United Nations High Commissioner for Human Rights | OHCHR](https://www.ohchr.org/en/hrc/53/42:Human%20rights%20and%20technical%20standard-setting%20processes%20for%20new%20and%20emerging%20digital%20technologies)
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 7: Report on the right to privacy

In its resolution 54/21, the Human Rights Council requested the United Nations High Commissioner for Human Rights to prepare a report on challenges and risks with regard to discrimination and unequal enjoyment of the right to privacy associated with the collection and processing of data, including those addressed in the resolution, to identify and clarify related human rights principles, safeguards and best practices. The report will be presented to the 60th session of the Human Rights Council in September 2025.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy
- Project Website (links): The report will become available here: <https://www.ohchr.org/en/privacy-in-the-digital-age>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 8: Key Asks for State Regulation on AI Brief

Delivered to the public on the occasion of the Paris AI Summit, OHCHR published a brief presenting 10 key asks for State regulation of AI.

- Project Type (Status): Brief (Brief)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy, right to a healthy environment
- Project Website (links): <https://www.ohchr.org/en/documents/tools-and-resources/key-asks-state-regulation-ai>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 9: B-Tech Project deploying and using new technologies

UN Human Rights has launched the B-Tech Project in 2019 which develops authoritative guidance and resources to enhance the quality of implementation of the United National Guiding Principles on Business and Human rights with respect to a selected number of strategic focus areas in the technology space. It focuses on the following thematic areas, all of which touch upon important aspects of the development, deployment and use of AI: (1) Addressing Human Rights Risks in Business Models; (2) Human Rights Due Diligence and End-Use; (3) Accountability and Remedy; and (4) A Smart Mix of Measures: Exploring regulatory and policy responses to human rights challenges linked to digital technologies. B-Tech project is running an AI project that demonstrates the ways in which the UN Guiding Principles on Business and Human Rights should guide more effective understanding, mitigation, and governance of the risks associated with generative AI. The B-Tech project also contributes to the [implementation of the Global Digital Compact](#), in particular with regard to the implementation of the UN Guiding Principles on Business and Human Rights with regard to AI products and services.

- Project Type (Status): Full-fledged development (Framework/Strategy/Policy)
- Project Domain: Human rights
- Project Website (links): <https://www.ohchr.org/EN/Issues/Business/Pages/B-TechProject.aspx>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 10: Development of UN system-wide guidance on human rights diligence in the context of digital technology use

In May 2024, the Secretary-General published the Guidance on Human Rights Due Diligence for Digital Technology Use. This tool was developed by the OHCHR as a result of the request made by the Secretary-General in his Roadmap for Digital Cooperation (A/74/821) to support all UN entities to implement and strengthen human rights due diligence (HRDD) policies, processes and practices for the use (including development, acquisition and sharing) of digital technologies, including artificial intelligence. The guidance provides a practical introduction to HRDD to assist each entity in developing, implementing and strengthening its HRDD for digital technology use, as well as actions to get started and strengthen HRDD over time. The Guidance also provides annexes of frequent asked questions and complimentary resources

- Project Type (Status): In development, scheduled completion by end of 2022 (Guidance)
- Project Domain: Human rights
- Project website: [digital-technology-use-guidance-sg-1-en.pdf](#)
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 11: United Nations Hub for Human Rights and Digital Technology

As part of the implementation of the UN Secretary-General's Call to Action for Human Rights, UN Human Rights launched the UN Hub for Human Rights and Digital Technology, which provides a central repository of authoritative guidance from various UN human rights mechanisms on the application of human rights norms to the use and governance of digital technologies, including artificial intelligence.

- Project Type (Status): Website (website)
- Project Domain: Human rights
- Project Website (links): www.digitalhub.ohchr.org
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 12: Co-lead of implementation of the data protection pillar of the UN Data Strategy

In June 2016, the Secretary-General presented the UN Data Strategy for Action by Everyone, Everywhere. Data Protection and Privacy is one of the priority areas in the strategy. OLA, EOSG and UN Human Rights are the co-leads of the implementation of this priority area).

- Project Type (Status): Full-fledged development (Framework/Strategy/Policy)
- Project Domain: Human rights, Data protection
- Project Website (links): <https://www.un.org/en/content/datastrategy/>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 13: Universal Human Rights Index

The Universal Human Rights Index (UHRI) is designed to facilitate access to human rights recommendations issued by three key pillars of the United Nations human rights protection system: the Treaty Bodies established under the international human rights treaties as well as the Special Procedures and the Universal Periodic Review (UPR) of the Human Rights Council. Many of these outputs have been manually tagged for eight years. We have used this training dataset to build a natural language classifier, using a neural network, to create recommendations for how outputs should be classified.

- Project Type (Status): Proof of concept (Software product)
- Project Domain: Human rights
- AI Approach: Software application
- Datasets: Universal Human Rights Index
- Related Sustainable Development Goals: All SDGs
- Project Partners: HuriDocs, Danish Institute for Human Rights
- Membership or Secretariat-driven: Secretariat-driven
- Project Website (links): <https://uhri.ohchr.org/en>
- Resources/Skills: Natural language processing, software development
- Technology: PyTorch
- Challenges: Data quality and consistency in the tagging of training data is key. We are redeveloping the model on the basis of improved training data, with more consistent tagging.
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 14: Digital Image Verification and Classification Project

In the past, human rights investigations faced challenges in gathering sufficient data, but with the advent of portable consumer technologies the challenge has evolved. The amount of data is not such a pressing issue, but filtering information to create useful evidence is a challenge. The recent experience of the Commission of Enquiry on the protests in Gaza or the current experience of the Commission of Enquiry on the Syrian Arab Republic are instructive. Both initiatives have received huge quantities of video and image data from networks of informants, a big challenge to authenticate, classify and analyse into useful evidence. This project works to address this need by further developing existing open source tools, available to the human rights ecosystem, and creating an internal instance for conducting the same analysis on confidential information.

- Project Type (Status): Full-fledged development (Software product)
- Project Domain: Human rights
- AI Approach: Further development of an existing software application
- Datasets: DEFACTO: Image and Face Manipulation Dataset
- Related Sustainable Development Goals: All SDGs, especially SDG 16 – Peace, Justice, And Strong Institutions
- Project Partners: Information Technologies Institute of the Centre for Research and Technology Hellas (ITI-CERTH)
- Membership or Secretariat-driven: Secretariat-driven
- Project Website (links): <https://www.invid-project.eu/>
- Resources/Skills: Forensic image analysis and classification. Software development
- Technology: PyTorch
- Challenges: Video tampering detection is computationally expensive, and we are looking for more efficient ways to perform this task.
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 15: Mapping report: human rights and new and emerging digital technologies - Report of the Office of the United Nations High Commissioner for Human Rights

In its resolution 53/29, the Human Rights Council requested the United Nations High Commissioner for Human Rights to prepare a mapping report of the work of the OHCHR, the human rights treaty bodies and the special procedures of the Council in the field of human rights and new and emerging digital technologies, including artificial intelligence. The report identifies gaps and challenges, and present recommendations on how to address them, considering the United Nations system-wide work.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of peaceful assembly, freedom of expression, right to privacy
- Project Website (links): <https://docs.un.org/A/HRC/56/45>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 16: Digital Border Governance: A human Rights Based Approach – Report of the University of Essex and the Office of the High Commissioner for Human Rights

In September 2023, the OHCHR, jointly with the University of Essex and with funding from the Federal Department of Foreign Affairs of Switzerland, released a report exploring the

implications of digital technologies in the context of border governance. The report covers a range of tools, from basic to advanced, including automated systems and artificial intelligence.

- Project Type (Status): Report (Report)
- Project Domain: Freedom of movement, freedom of expression, freedom of information
- Project Website (links): <https://www.ohchr.org/sites/default/files/2023-09/Digital-Border-Governance-A-Human-Rights-Based-Approach.pdf>
- Contacts: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Human Rights Council, Advisory Committee

Project 17: Report of the Advisory Committee of the Human Rights Council on New and Emerging Digital Technologies and Human Rights (A/HRC/47/52)

Pursuant to the adoption by the Human Rights Council resolution “New and emerging digital technologies and human rights” (A/HRC/RES/41/11) at the forty-first session, the Advisory Committee presented a report on the impacts, opportunities, and challenges of new technologies with regard to the promotion and protection of human rights, including mapping of relevant existing initiatives by the United Nations (UN) and recommendations on how human rights opportunities, challenges, and gaps arising from new technologies could be addressed by the Human Rights Council and its special procedures and subsidiary bodies in a holistic, balanced, and pragmatic manner. The report addresses a range of issues linked to the use of AI and notes that AI decision-making, even when unintended, may result in discriminatory outcomes if the decision-making is based on biased algorithms. It highlights that a rigorous human rights due diligence of automated decision-making tools is necessary.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): <https://docs.un.org/en/A/HRC/47/52>
- Contacts: Mr Eric Tistounet, Chief, Human Rights Council Branch (eric.tistounet@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Special Procedures of the Human Rights Council

Project 18: Human Rights Council report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance on Racial discrimination and emerging digital technologies: a human rights analysis (A/HRC/44/57)

The Special Rapporteur analyses different forms of racial discrimination in the design and use of emerging digital technologies, such as AI, and focuses in particular on the structural and institutional dimensions of this discrimination. She also outlines the human rights obligations of States and the responsibility of corporations to combat this discrimination.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): <https://www.undocs.org/A/HRC/44/57>
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 19: Human Rights Council report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance on racial and xenophobic discrimination and the use of digital technologies in border and immigration enforcement (A/HRC/48/76)

The Special Rapporteur highlights how digital technologies, including AI systems, are being deployed to advance xenophobic and racially discriminatory ideologies which have become prevalent. The report also links the trends in immigration surveillance whereby AI-driven predictive models are prone to creating and reproducing racially discriminatory feedback loops.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): www.undocs.org/A/HRC/48/76
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 20: Human Rights Council report of the Special Rapporteur on the rights of persons with disabilities (A/HRC/49/52)

Pursuant to the Human Rights Council resolution 44/10, the Special Rapporteur provides a study on artificial intelligence and the rights of persons with disabilities. The Special Rapporteur examines the opportunities and the risks posed by artificial intelligence technology to the enjoyment of the human rights of persons with disabilities, and emphasizes that the practical benefits of artificial intelligence may be realized once their human rights risks are sufficiently addressed.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): www.undocs.org/A/HRC/49/52
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 21: Human Rights Council report of the Special Rapporteur on extreme poverty and human rights on the non-take-up of rights in the context of social protection (A/HRC/50/38)

The Special Rapporteur notes that automation of benefits, by reducing administrative complexity for potential recipients, can reduce “non-take-up”, a phenomenon where social protection benefits often go unused even though they are designed to protect individuals throughout their lives. At the same time, the Special Rapporteur highlights that automation carries risks of exclusion for the most vulnerable groups, including people unregistered at birth, undocumented migrants, individuals without a fixed address, or informal workers.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): www.undocs.org/A/HRC/50/38
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 22: UN General Assembly report of the Special Rapporteur on extreme poverty and human rights on digital welfare states and human rights (A/74/493)

In the context of greater digitization of social protection and assistance systems and the increasing role played by automated decision-making through the use of algorithms and artificial intelligence in such systems, the Special Rapporteur warns of a digital welfare dystopia and recommends that rather than obsessing about fraud, cost savings, sanctions, and market-driven definitions of efficiency, the starting point should be on how welfare budgets could be transformed through technology to ensure a higher standard of living for the vulnerable and disadvantaged.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): www.undocs.org/A/74/493
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Project 23: UN General Assembly report of the Special Rapporteur on the Right to Privacy on the principles of transparency and explainability in the processing of personal data in artificial intelligence (A/78/310)

In the context of the frequent use of artificial intelligence in all activities, the Special Rapporteur highlights the principles of transparency and explainability in the processing of personal data using artificial intelligence to enhance trust and reliability. She stresses the importance of taking measures to guarantee ethical, responsible and human rights compliant use of artificial intelligence and advocates for user awareness regarding the use their personal data in artificial intelligence processes or projects, as well as clear understanding of their rights.

- Project Type (Status): Full-fledged development (Report)
- Project Domain: Human rights
- Project Website (links): <https://docs.un.org/en/A/78/310>
- Contacts: Ms Beatriz Balbin Chamorro, Chief, Special Procedures Branch (beatriz.balbin@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Human Rights Committee

Project 24: General comment No. 37, Article 21: Right of peaceful assembly

The General Comment No. 37 on the right of peaceful assembly was adopted on 23 July 2020 during the 129th online session of the Human Rights Committee. The General Comment addresses extensively question linked to the use of digital technologies, including AI-based tools, both by organizers of and participants in assemblies and state authorities.

- Project Type (Status): Full-fledged development (Other)
- Project Domain: Human rights
- Project Website (links): <https://www.ohchr.org/EN/HRBodies/CCPR/Pages/GCArticle21.aspx>
- Contacts: Ibrahim Salama, Chief, Human Rights Treaties Branch (ibrahim.salama@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Committee on the Rights of the Child

Project 25: Committee on the Rights of the Child - General Comment No. 25: Children's rights in relation to the digital environment

The General Comment No. 25 on children's rights in relation to the digital environment was adopted on 2 March 2021 during the 131st session of the Human Rights Committee. The General Comment lays out how States parties should implement the Convention in relation to the digital environment and provides guidance on relevant legislative, policy and other measures to ensure full compliance with their obligations under the Convention and the Optional Protocols in light of the opportunities, risks, and challenges in promoting, respecting, protecting and fulfilling all children's rights in the digital environment.

- Project Type (Status): Full-fledged development (Other)
- Project Domain: Human rights
- Project Website (links): <https://www.ohchr.org/EN/HRBodies/CRC/Pages/GCChildrensRightsRelationDigitalEnvironment.aspx>
- Contacts: Ibrahim Salama, Chief, Human Rights Treaties Branch (ibrahim.salama@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

Committee on the Elimination of Racial Discrimination

Project 26: Committee on the Elimination of Racial Discrimination: General comment No. 36: preventing and combating racial profiling by law enforcement officials

The General Comment No. 36 on preventing and combating racial profiling by law enforcement officials was adopted on 17 December 2020 during the 102nd session of the Human Rights Committee. The General Comment focuses on algorithmic decision-making and AI in relation to racial profiling by law enforcement officials, and has observed that the increasing use of new technologies, including AI, has the potential to deepen racism, racial discrimination, xenophobia and other forms of exclusion. focuses on algorithmic decision-making and AI in relation to racial profiling by law enforcement officials.

- Project Type (Status): Full-fledged development (Other)
- Project Domain: Human rights
- Project Website (links): <https://www.ohchr.org/EN/HRBodies/CERD/Pages/GC36.aspx>
- Contacts: Ibrahim Salama, Chief, Human Rights Treaties Branch (ibrahim.salama@un.org); Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

2. Related Sustainable Development Goals

SDGs 1, 2, 3, 7, 9, 10, 11, 13, 16 and 17

3. Relevant Links

<https://www.ohchr.org/EN/pages/home.aspx>

Contact Information: Ms Birgit Kainz-Labbe, Human Rights Officer (birgit.kainz@un.org)

The Joint United Nations Programme on HIV/AIDS



1. Description of Activities on AI

Project: Scoping study on use of (generative) AI for ending AIDS

- **Project Description:** There is a lack of comprehensive and systematic evidence on how AI is being used, by whom, for what purposes, with what results and implications, and under what conditions and ethical frameworks. There is also a lack of coordination and collaboration among different stakeholders, such as governments, civil society, academia, private sector and international organizations, to share best practices, lessons learned, challenges and opportunities on the use of AI for HIV/AIDS. Furthermore, there is a need to identify and address the gaps and barriers that hinder the adoption and scaling of AI for HIV/AIDS and equitable access to them, such as data availability and quality, technical capacity and infrastructure, legal and regulatory frameworks, ethical and human rights issues, and social and cultural factors. To understand the opportunities and the risks, a scoping study was planned with the follow objectives:
 - To map and analyze the existing and emerging initiatives, projects and programs that use AI for HIV/AIDS prevention, diagnostics and treatment, financing (HIV and Health), across different regions, countries and contexts.
 - To assess the existing literature on the impact and effectiveness of AI for HIV/AIDS in terms of improving health outcomes, reducing costs, increasing access and equity, and enhancing quality and satisfaction.
 - To identify and document the best practices, lessons learned, challenges, including potential human rights implications, and opportunities on the use of AI for HIV/AIDS from the perspectives of different stakeholders, such as governments, communities, civil society, academia, private sector and international organizations.
 - To provide recommendations and guidance on how UNAIDS can promote and warn against the use of AI technologies to support budgeting, financing of HIV/Health response, counter inequalities, close the HIV service gap and achieve our 2030 targets of ending the AIDS epidemic as a public health threat.
- **UN Entity Name:** UNAIDS
- **Entity Name:** UN Joint Programme on HIV and AIDS
- **Department/Division:** A cross-organization team
- **Project Type/Output:** A research report that feeds into a UNAIDS publication.
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Projected End Year:** 2025
- **Project updates:** The report from the scoping study is finalized, a publication is under development. UNAIDS is participating in the *Lancet Commission on AI and HIV*.
- **Project Domain:** Health
- **Data Source:** Literature review and expert and stakeholder interview.
- **Link to data:** Will be provided once the publication is out.

- **Technology/Platform:** Not relevant
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-Being; SDG 10 – Reduced Inequalities
- **Contact information:** Daria Ocheret (MatyushinaDA@unaids.org)

2. Related Sustainable Development Goals

SDG 3, 10

3. Relevant Links

Contact Information: [Ali Feizzadeh](#) (feizzadeha@unaids.org)

United Nations Convention to Combat Desertification



United Nations
Convention to Combat
Desertification

1. Description of Activities on AI

Project 1: Imagine 2040: An AI Crafted film Project

- Project Description: *Imagine Land 2040* is an AI-powered short film produced in partnership with the G20 Global Land Initiative, hosted at the UN Convention to Combat Desertification (UNCCD), and Tomorrow in Focus. This groundbreaking film merges youth storytelling, AI-generated visuals, and real-world conservation narratives to inspire action on land restoration and climate resilience. The film follows the journey of four children—from Brazil, China, Senegal, and the U.S.—who witness the environmental degradation of their homelands. With imagination and technology, they envision a restored future, highlighting the urgent need for global cooperation in restoring degraded lands.

The idea for *Imagine Land 2040* was born out of a desire to blend AI and youth storytelling to drive impact on land restoration. The project was spearheaded by Tomorrow in Focus, a youth-led AI production house, with the support of the G20 Global Land Initiative at UNCCD. Leveraging advanced AI tools such as Runway Gen-3 and Midjourney, the team created a seamless blend of AI animation and live-action cinematography, pushing the boundaries of AI synthography. The film premiered at UNCCD COP 16 in Riyadh, Saudi Arabia, garnering attention from global leaders and policymakers. Since its premiere, 'Imagine Land 2040' has received critical acclaim. It has been selected to screen at several international conferences, including Start Summit St. Gallen and UNFCCC COP 30 Belem, and has been recognized by various prestigious film festivals such as the Seoul International AI Film Festival. The project was developed by a team of over 40 students and volunteers, spanning computer science, cinematography, AI ethics, and environmental policy, proving that AI can be a tool for positive storytelling and global impact.

Unlike traditional productions that generate thousands of metric tons of CO₂ emissions, *Imagine Land 2040* was produced using AI-generated assets, digital workflows, and sustainable computing, reducing its carbon footprint by up to 99% compared to conventional filmmaking. A carbon impact study estimated emissions ranging from 7.45 kg CO₂e to 114.80 kg CO₂e, far lower than the 3,370 metric tons of CO₂ typically emitted by traditional films.

As part of the G20 Global Land Initiative's mission to reduce land degradation by 50% by 2040, *Imagine Land 2040* serves as a powerful advocacy tool—bridging technology, youth voices, and policy impact. It is a proof of concept for using AI in sustainability storytelling while advocating for global land restoration policies.

- Department/Division: G20 Global Land Initiative Unit
- Project Type/Output: Film
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Land Restoration
- Data Source:

- AI Generated Film
- Publicly Available Data: Yes
- Technology/Platform:
 - Runway Gen-3
 - Midjourney
- Related Sustainable Development Goals (SDGs): SDG 14
- Partnership(s)/Collaborator(s):
 - Academia: Vanderbilt University, United States
- Links and Multimedia:
 - Watch the [teaser](#)

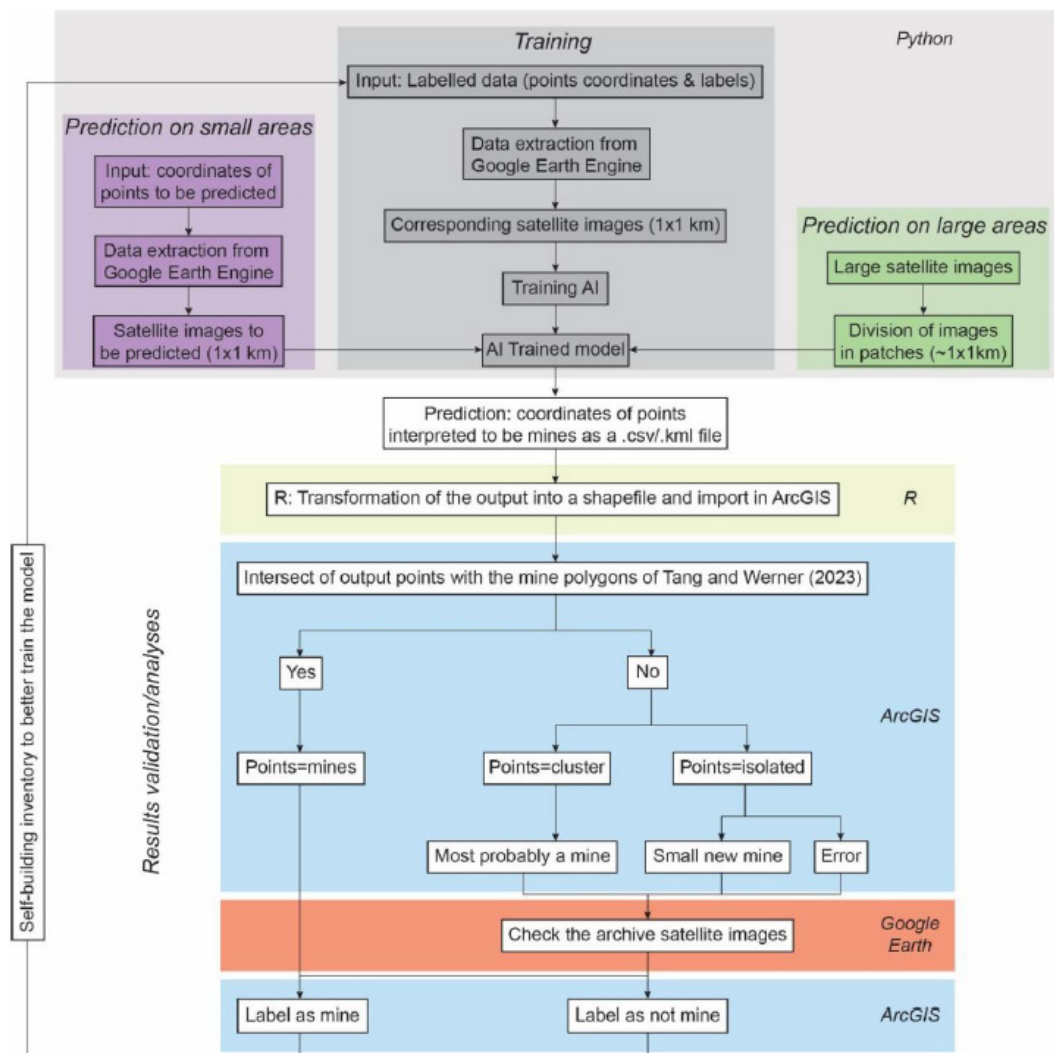
Stay tuned for more details on our [Website](#)
Follow on Socials: [Instagram](#) | [YouTube](#) | [Twitter/X](#)
- Lessons Learned:
 - AI Based Movie Making: Immense Possibility to make movies using AI at low cost, high creativity and low carbon footprint
 - Collaborating with Young People: There is lot of enthusiasm and volunteerism among young people to support the causes of the United Nations
- Contact Information: Muralee Thummarukudy, Director, G20 Global Land Initiative, United Nations Convention to Combat Desertification, mthummarukudy@unccd.int

Project 2: Scientific Report – Activity 2: Pilot study – Detection and mapping of abandoned mine sites

- Project Description: Mining activities play a crucial role in the global economy, but their environmental and social risks remain significant, especially for the 3.5 billion people living near mine sites. Effective monitoring of mining activities is essential for improving safety, preventing illegal operations, and enabling land restoration efforts—challenges that are particularly pronounced in developing countries due to resource constraints. In response, the G20 Global Initiative along with UNEP GRID Geneva, has prioritized in investigating the potential for abandoned mine restoration, with South Africa as an initial focus. Advancements in remote sensing, artificial intelligence (AI), and cloud computing now provide powerful tools for large-scale monitoring, track mining site evolution and investigate mitigate environmental impacts.
- This project leverages freely available multispectral satellite imagery alongside AI-driven deep learning models, cloud computing (Google Earth Engine), and open-source tools (TensorFlow, QGIS, Python, and R) to systematically monitor mining sites in South Africa and Lesotho. The study tested both Sentinel-2 and Landsat-8 satellite images, concluding that Sentinel-2 provided higher accuracy due to its superior spatial resolution (10m vs. 30m) and shorter revisit time (10 days vs. 16 days). Despite Landsat's extensive 40-year archive, Sentinel-2's high-resolution imagery was preferred for this study, with potential future adaptations to incorporate Landsat data for long-term monitoring. Sentinel-2 images were processed using open-source technologies, including TensorFlow, QGIS, Python, and R, within the Google Earth Engine platform. The methodology includes training AI models on satellite imagery, validating their accuracy, and applying them to detect changes in mining activities over time. The study conducts two levels of prediction: localized, multi-year site evolution analysis and broader-scale national assessments. By developing an AI-powered monitoring system, this initiative aims to enhance large-scale predictions of surface mines and tailings dams, supporting environmental management and sustainable land use policies.

- Methodology of the Study: This study employs deep learning algorithms for detecting and monitoring mining sites and tailings dams using multispectral satellite imagery. The methodology consists of four key steps:
 - creating a training dataset with labeled Sentinel-2 images,
 - training an AI model to recognize mine sites and tailings dams,
 - predicting their presence in satellite images, and
 - analyzing results across space and time. Sentinel-2 images were preferred over Landsat-8 due to their higher spatial and temporal resolution, though future adaptations may incorporate Landsat's extensive archive.

Figure 1: Methodology applied during the study that consists in creating a training dataset, training the AI, predict and validate/analyze the results for different sizes of area and using various software



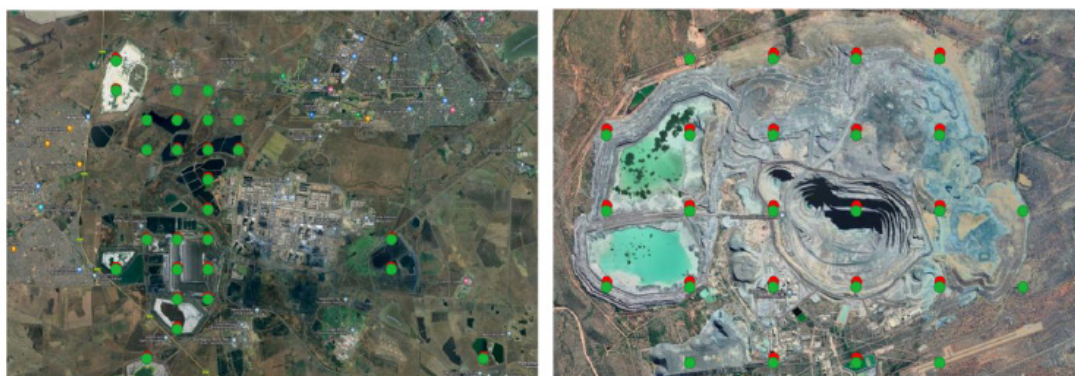
The AI model, based on convolutional neural networks, was trained using a dataset of 4,000 labeled images from South Africa (2,000 mine and 2,000 non-mine samples). Image extraction was conducted via Google Earth Engine, ensuring minimal cloud coverage, while training and prediction were performed using Google Colaboratory with enhanced GPU resources. The model was validated using an 80/20 training-test split, and predictions were analyzed at two

scales: localized yearly changes (2018–2021) and national-scale assessments for South Africa and Lesotho.

The trained AI model was applied to both small and large areas. For small areas, selected points were used to extract 1 x 1 km satellite images from Google Earth Engine, and the AI predicted the presence of mines. For large areas like South Africa (~1.27 million km²), processing individual images was infeasible, so a method using large satellite images divided into smaller patches was employed, reducing processing time to about 8–10 days per year. The AI-generated output consists of coordinates of detected mine sites, saved in .csv or .kml files for further analysis. The study follows an iterative approach to refine model performance, considering both active and abandoned mine sites, to enhance large-scale AI-driven monitoring of mining activities.

AI model accuracy: This pilot study successfully demonstrated the use of AI and remote sensing to monitor mining site evolution in South Africa. The AI model achieved an 87% accuracy rate in identifying mine sites, with 9.2% of non-mine areas incorrectly classified as mines. It also identified previously undocumented mines, highlighting its potential for improving existing inventories. The estimated mining area (~3,898 km²) closely aligns with previous studies but suggests that prior datasets, such as Tang and Werner (2023), may be incomplete. Large-scale predictions revealed 1,006 new mine points and a reduced misinterpretation rate of 5.05%, though this still required extensive manual correction. Recurring misclassifications, particularly in agricultural areas, mountain slopes, and Lesotho, were linked to gaps in the background training dataset. While the model performed well, refining the training data and addressing systematic errors will further enhance its accuracy and applicability for large-scale mine monitoring.

Figure 2: Mine detection with AI



- **Conclusion:** This exploratory work had as purpose to explore the potential of innovative technologies, freely available, such as Artificial Intelligence/Deep learning techniques, satellite imagery data, Google Earth platform and other tools in discovering a variety of mine sites and their tailings dams, which still represent a risk not only to the population but also to the environment. The study was performed over the area of South Africa, from which we also extracted the training dataset for the AI network. The prediction of the AI can be applied on small areas (by dividing the area in 1 x 1 km patches) but also on large areas (by extracting large Sentinel2 images to cover the wide area and dividing them in smaller patches before prediction). The Deep learning technology combined with Sentinel 2 multispectral images proven to be quite successful in automatically detecting mining sites, with an accuracy of over 90%.
- **Department/Division:** G20 Global Land Initiative Unit

- Project Type/Output: Report
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Land Restoration
- Data Source:
 - Sentinel 2 images were extracted from the Google Earth Engine
 - Remote sensing data, starting with Landsat 1 (1972), up to Landsat 8 (2013) and Landsat 9 (2021).
- Publicly Available Data: Yes
- Technology/Platform:
 - Google earth engine
 - Python
 - R
 - Qgis
 - ArcGIS pro
- Related Sustainable Development Goals (SDGs): SDG 15, 9
- Partnership(s)/Collaborator(s): UNEP GRID Geneva
- Links and Multimedia:
- Lessons Learned:
 - AI Model Performance and Limitations: The trained AI model demonstrated strong predictive capabilities, correctly identifying 87% of mine points. However, it misclassified 5% of non-mine areas, necessitating manual corrections and highlighting the need for further refinement to reduce recurrent misinterpretations (e.g., agricultural areas, roads, rivers, and steep slopes).
 - Advancements in AI Detection Methods: Transitioning from image classification to object detection (e.g., UNET models) could improve surface mining detection by identifying individual mines and tailings dams rather than classifying entire images. Additionally, separating mines from tailings dams in training data would further enhance the model's precision.
 - Potential for Global Application and Improvement: Incorporating training data from Australia—due to its similar landscapes, climate zones, and comprehensive mine datasets—could refine the AI's detection capabilities. Additionally, using high-resolution satellite images like Sentinel-2 instead of lower-resolution Landsat images would enhance prediction accuracy, enabling better long-term monitoring of mining activities worldwide.
- Contact Information: Abd Salam AI VILALY, Programme Officer, G20 Global Land Initiative, United Nations Convention to Combat Desertification, avilaly@unccd.int

2. Related Sustainable Development Goals

SDGs 9, 14 and 15

3. Relevant Links

Abd Salam AI VILALY, Programme Officer, G20 Global Land Initiative, United Nations Convention to Combat Desertification, avilaly@unccd.int

United Nations Conference on Trade and Development



1. Description of Activities on AI

Project 1: Technology and Innovation Report 2025: Inclusive Artificial Intelligence for Development

- Project Description: AI has the potential to accelerate progress towards achieving the SDGs, but if unevenly distributed and not guided by ethical oversight and transparency, its use can exacerbate existing inequalities. The rapid development of AI has also outpaced the ability of Governments to respond effectively. This report aims to guide policymakers through the complex AI landscape and support them in designing science, technology and innovation (STI) policies that foster inclusive and equitable technological progress. The following five core themes are examined in the report:
 - a) The global landscape of frontier technologies and AI
 - b) Leveraging AI for productivity and workers' empowerment
 - c) Preparing to seize AI opportunities
 - d) Designing national policies for AI
 - e) Global collaboration for inclusive and equitable AI
- Department/Division: Technology, Innovation and Knowledge Development Branch/ Division of Technology and Logistics
- Project Type/Output: Flagship publication
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2025
- Project Updates: Project was completed
- Project Domain: Science, technology and innovation; Sustainable development; Technological gaps; AI governance
- Data Source: Academic literature, experts knowledge, contributions from member states and the UN System.
- Publicly available data: Yes.
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 17 – Partnerships for the Goals.
- Links and Multimedia: <https://unctad.org/publication/technology-and-innovation-report-2025>
- Contact information: Mr. Angel González Sanz, Chief, Technology, Innovation and Knowledge Development Branch, Division on Technology and Logistics (angel.gonzalez-sanz@un.org)

Project 2: CSTD Multistakeholder Working Group on Fundamental Principles of Data Governance.

- Project Description: In 2024, the United Nations General Assembly in its resolution [A/RES/79/1](#) requested the Commission on Science and Technology for Development to establish a dedicated working group to engage in a comprehensive and inclusive multi-stakeholder dialogue on data governance at all levels as relevant for development.
- The working group will report on its progress to the General Assembly, by no later than the eighty-first session, including on follow-up recommendations towards equitable and interoperable data governance arrangements, which may include:
 - Fundamental principles of data governance at all levels as relevant for development.
 - Proposals to support interoperability between national, regional and international data systems.
 - Considerations of sharing the benefits of data.
 - Options to facilitate safe, secure and trusted data flows, including cross-border data flows as relevant for development (all SDGs).
- Department/Division: Technology, Innovation and Knowledge Development Branch/ Division of Technology and Logistics
- Project Type/Output: Intergovernmental work
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: Ongoing
- Project Updates: Ongoing
- Project Domain: Science, technology and innovation; Sustainable development; Data governance; Telecommunications; Statistics
- Data Source: Consultations with government stakeholders, academia, business, civil society organizations, technical communities, international organizations, local communities, and other stakeholder groups. Academic literature, white papers and reports.
- Publicly available data: Yes.
- Related Sustainable Development Goals (SDGs): All SDGs.
- Links and Multimedia: <https://unctad.org/topic/commission-on-science-and-technology-for-development/working-group-on-data-governance>
- Contact information: Mr. Angel González Sanz, Chief, Technology, Innovation and Knowledge Development Branch, Division on Technology and Logistics (angel.gonzalez-sanz@un.org)

2. Related Sustainable Development Goals

All SDGs

3. Relevant Links

www.unctad.org

Contact Information: Mr. Angel González Sanz, Chief, Technology, Innovation and Knowledge Development Branch, Division of Technology and Logistics (angel.gonzalez-sanz@un.org)

United Nations Department of Economic and Social Affairs



1. Description of Activities on AI

Project 1: Use of Complex Network Mappings Development for Digital Government

- **Project Description:** The United Nations E-Government Survey is produced every two years and is a flagship publication of UN DESA. It presents the ranking of e-government development across 193 United Nations Member States by assessing e-government development according to a quantitative composite index based on Online Service, Telecommunication Infrastructure, and Human Capital Indices. It provides decision makers with information that enables them to identify their areas of strengths and challenges, as well as suggested options on how best to move ahead.

In 2022, UN DESA hired a consultant to conduct a pilot study using the science of complex systems to expand the analysis of factors affecting countries' e-government development beyond income level and test a complex network analysis model to address possible inequalities and biases inherent to rankings and find as yet unidentified similarities and differences between the Member States. The following section provides details on methodology of complex networks model used for the UN DESA pilot study conducted by Roberto Bellotti, Professor in Applied Physics and Director of the Physics Department of the University of Bari, Italy. More detailed information on the study and its findings is available on UNDESA Egovknowledge base.

The data set used for the analysis consisted of 305 World Development Indicators (WDIs) relating to health, economy, society and environment and 214 SDG indicators characterizing the general development level of each Member State. The SDG indicators have acquired a decisive role in the characterization of the 193 UN Member States as they allow to represent the general conditions for development of each nation in a multifaceted way, providing additional and complementary information to the WDIs, especially in strategic areas relevant to EGDI: access to electricity, mobile networks coverage, and the number of fixed internet broadband subscriptions, to name a few. Selection of indicators followed the criteria of data availability, consistency, and non-redundancy. The reference year for data is 2020, with missing values filled up with data from 2019 and 2018 to represent a snapshot of the current situation.

- **Entity Name:** Digital government Branch.
- **Department/Division:** DESA – Division for Public Institutions and Digital Government
- **Project Type/Output:** Report/Academic paper/Software tool/Seminar/meeting
- **Project Status:** Development
- **Project Start Year:** 2019
- **Project End Year:** Continuous
- **Project Domain:** This is a cross-cutting project covering most fields, as it is about effective Governments and Public Institutions, Digital transformational and Digital Development for sustainable development.
- **Data Source:**
 - World Development indicators (WDI) – World Bank Group

- E-government Development Index (EGDI) - UN-DESA
- Link to data: [https://publicadministration.un.org/egovkb/en-us/Data-Center](https://publicadministration.un.org/egovkb/en-us/Data-Center;); <https://databank.worldbank.org/source/world-development-indicators>
- Publicly available data: Yes
- Technology/Platform: Python: libraries on machine learning and complex network analysis
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, 9 – Industry, Innovation and Infrastructure, 10 – Reduced Inequalities, and 16 – Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Academia: University of Bari – Italy - Department of Physics Scientific Partner
- Links: <https://publicadministration.un.org/en/Research/UN-e-Government-Surveys>; <https://www.nature.com/articles/s41598-020-74964-3> - Scientific publication as starting point for this pilot project.
- Lessons Learned: Grouping the countries into four development clusters using complex network analysis enables to reinterpret the level of e-government development of the UN Member States and their E-Government Development Index (EGDI) ranking considering their starting conditions, as well as their mutual similarities and differences. By comparing the countries EGDI values both within the same cluster, and between different clusters it is possible to identify top-of-the-class countries, whose performance goes beyond the expectations based on their development status, and room-for-improvement countries, that have the potential to reach their cluster peers in the EGDI ranking by increasing their efforts. For top-of-the-class countries their EGDI values are above the 75th percentile of the cluster they belong to, and, at the same time, they are above the 25th percentile of at least one development cluster above. By the same token, for room-for-improvement countries the EGDI values are below the 25th percentile of the cluster they belong to and, at the same time, are below the 75th percentile of at least one developed cluster below. The study also identified the benchmark countries, regarded as the best cases compared to the rest of the world, and trailing countries, which would need specific support to improve their condition in areas relevant for EDGI ranking. Benchmark countries are characterized by an EGDI values above the 75th percentile of the distribution within cluster I, while trailing countries have EGDI values falling below the 25th percentile of the distribution within cluster IV. I.
- Contact information: Vincenzo Aquaro (aquaro@un.org) & Deniz Susar (susar@un.org)

Project 2: Fast-evolving technologies in e-government: Government Platforms, Artificial Intelligence and people

Chapter 5 - The Future of Digital Government: Trends, Insights and Conclusions, within the United Nations E-Government Survey 2022 discusses evolving technologies and new approaches in digital government. It covers cognitive government, agile and adaptive government, seamless government.

- Project Type (Status): Other (Other)
- Project Domain: UN E-Government Survey 2022
- AI Approach: Publication
- Related SDGs: All SDGs, specifically SDG 16 Peace, Justice and Strong Institutions
- Membership or Secretariat-driven: Both
- Project Website (links): <https://publicadministration.un.org/egovkb>
- Resources/Skills: The need for data is nothing new but the ways in which data are created and used have changed dramatically in recent years, bolstered by the revolution in data technologies and the proliferation of applications of different types and forms of data,

including small and big data, real-time data and geospatial data. The current COVID-19 pandemic also reinforces the centrality of data -- how governments and businesses handle data, as it turns out, is a crucial part of their pandemic response. Learn more about open government data development, policy and institutional trends on government data sharing, exchange and interoperability, as well as data security, privacy and ethics; and recommendations on national data leadership and data governance framework.

- Technology: Publication
- Challenges: Developing indicators to measure how AI is used in public administration
- Contacts: Vincenzo Aquaro (aquaro@un.org) & Deniz Susar (susar@un.org)

Project 3: National and Local Surveys of Digital Government Branch

To prepare for the production of United Nations E-Government Surveys, the Digital Government Branch conducts a national survey called Member States Questionnaire (MSQ) at the national level, and a city level survey called Local Government Questionnaire (LGQ) at city level. Both surveys include questions on artificial intelligence;

National Level

- Does the national e-government strategy make specific reference to the use of new/emerging technologies such as artificial Intelligence (AI), robotics, blockchains, 5G and Internet of Things (IoT)? *

Local Level

- Do you have a specific city/municipality strategy on the following new technologies? (e.g., Artificial Intelligence, IoT, Blockchain, Smart City, 5G, Virtual/Augmented Reality, Robotics, 3D Printing)
- Does your city/municipality strategy plans for the use of big data analytics in their decision-making processes? Please explain further and provide links.
- Project Type (Status): Other (Other)
- Project Domain: UN E-Government Survey 2022
- AI Approach: Publication
- Related SDGs: All SDGs, specifically SDG 16 Peace, Justice and Strong Institutions
- Membership or Secretariat-driven: Both
- Project Website (links): <https://publicadministration.un.org/egovkb>
- Technology: Publication / Data
- Challenges: Developing indicators to measure how AI is used in public administration
- Contacts: Vincenzo Aquaro (aquaro@un.org) & Deniz Susar (susar@un.org)

Project 4: TFM findings on the impacts of rapid technological change on the SDGs

New and rapidly changing technologies, such as artificial intelligence, robotics and other automation technologies hold great promise for making accelerated progress towards the Sustainable Development Goals, but also pose formidable challenges in all of the SDG dimensions. Against this background, the UN General Assembly has called upon the TFM in repeated resolutions to present their updated findings to the Annual Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs.

- Project Type (Status): Research/Study paper (Recurring event)
- Project Domain: New technologies, including AI

- AI Approach/Activity: Findings are crowdsourced from TFM partners and scientific and technological communities, through calls for inputs (policy briefs and research papers), leveraging institutional networks, university partnerships and meetings. In particular, a series of UN expert group meetings on AI since 2016 have provided a convergent series of general policy recommendations, upon which recommendations for specific issues elaborate.
- Datasets: Scientific data provided by contributors and volunteers. Database under development
- Related SDGs: SDG 17 Partnerships for the Goals
- Project Partners: DESA, IATT, 10-Member Group, TFM partners, Universities
- Project Website (links): <https://sustainabledevelopment.un.org/tfm>
- Resources/Skills: Mainly volunteer work; knowledge of technologies developments, sustainable development models and pathways.
- Technology: UN platform
- Challenges: Key challenges have been the vast scope of the exercise, limited resources, and large expectations. However, a series of lessons-learned have been identified and important support provided to various reports. Present work in 2020 focuses on the environmental impacts of AI.
- Contacts: Mr Richard A Roehrl, Senior Economic Affairs Officer (roehrl@un.org)

Project 5: Exploring the impacts of new Internet applications and AI on the global energy system

New Internet applications and especially AI technologies have become a rapidly increasing source of energy demand but have also greatly shaped the opportunities for smart and cleaner energy systems. This project reviews what is known and what might be potential policy responses to these trends in the future.

- Project Type (Status): Research/Study paper (Ongoing)
- Project Domain: AI and Energy
- AI Approach/Activity: Desk study and expert surveys
- Datasets: (Under development)
- Related SDGs: SDG 7 Affordable and Clean Energy, SDG 9 Industry, Innovation and Infrastructure, SDG 17 Partnerships for the Goals
- Project Partners: DESA, IATT, 10-Member Group, Other experts
- Project Website (links): <https://sustainabledevelopment.un.org/tfm>
- Resources/Skills: Expert knowledge, volunteer work, and scientific networking skills. UNDESA 38 United Nations Activities on Artificial Intelligence (AI)
- Challenges: A key challenge has been the identification of work that exists in fragmented forms in various disciplines and both in academia and private sector. Hence, interdisciplinary expert surveys are key to their identification. Furthermore, a common technical terminology is needed.
- Contacts: Mr Richard A Roehrl, Senior Economic Affairs Officer (roehrl@un.org)

Project 6: IEEE/UN Event series

Training and outreach event on technology, policy, ethics and engagement of AI and other new technologies.

- Project Type (Status): Event (Concept note)
- Project Domain: New technologies, including AI: technology, policy, ethics and engagement

- AI Approach/Activity: Webinar series
- Datasets: IEEE datasets
- Related SDGs: SDG 17 Partnerships for the Goals
- Project Partners: DESA, IEEE, TFM partners
- Resources/Skills: Expert knowledge.
- Contacts: Mr Richard A Roehrl, Senior Economic Affairs Officer (roehrl@un.org)

Project 7: Long-term AI and technology scenarios for the SDGs

Long-term technology scenarios are routinely used to explore feasible technology pathways to tackle big global challenges, such as climate change and biodiversity. While an increasing number of them assume significant new opportunities due to AI, most of them do not make any effort to quantify these effects in both positive and negative terms. This initiative aims to explicitly account for AI and potential future AI technology developments based on existing technology development data. It also provides inputs for the mandated discussions of long-term future scenarios and the impact of current trends in the high-level segment of ECOSOC each year.

- Project Type (Status): Research/Study paper (Recurring event)
- Project Domain: AI scenarios
- AI Approach/Activity: Scenario analysis
- Datasets: Various scientific and technological data sources
- Related SDGs: SDG 7 Affordable and Clean Energy, SDG 13 Climate Action, 17 Partnerships for the Goals
- Project Partners: DESA, TFM partners
- Project Website (links): <https://undocs.org/e/2020/60>
- Resources/Skills: Scenario analysis, technology change, AI techs
- Technology: Various scenario models
- Challenges: A challenge is the linking to the national level and national level AI scenarios (where they exist)
- Contacts: Mr Richard A Roehrl, Senior Economic Affairs Officer (roehrl@un.org)

Project 8: Guidebook on AI ethics for government and development practitioners

While there are hundreds of publications and proposed AI ethics frameworks and codes of conduct by scientific and engineering communities, as well as an UNESCO initiative on AI ethics, little practical United Nations Activities on Artificial Intelligence (AI) 39 guidance exists for governments and development practitioners, especially guidance that is fully based on a balanced scientific and technological understanding. The guidebook aims to fill this gap.

- Project Type (Status): Report (Ongoing)
- Project Domain: AI ethics
- AI Approach/Activity: Collaborative product developed by academics working on AI ethics with practical experience
- Related SDGs: SDG 9 Affordable and Clean Energy, SDG 16 Peace, Justice and Strong Institutions, SDG 17 Partnerships for the Goals
- Project Partners: DESA, TFM partners
- Challenges: A key challenge is the translation of technical specificities into practical, easy understandable guidance for practitioners.
- Contacts: Mr Richard A Roehrl, Senior Economic Affairs Officer (roehrl@un.org)

Project 9: TFM online platform

The TFM online platform was mandated to provide a single-entry point for technology information.

- Project Type (Status): Software project (Deployed)
- Project Domain: Online platform for information on technologies and SDG knowledge
- AI Approach/Activity: Gateway to networks of curated SDG-related technologies and knowledge from UN and non-UN resources
- Related SDGs: All SDGs
- Project Partners: DESA, OICT, UNCTAD, 10-Member Group, and an increasing number of other partners (see website)
- Project Website (links): <https://tfm2030connect.un.org/>
- Challenges: Further development of content and operational support work.
- Contacts: Ms Stephanie Rambler, Sustainable Development Officer (rambler@un.org)

Project 10: Guidebook to resources on AI strategies (supplement to the IATT Guidebook on STI roadmaps for the SDGs)

While there is an increasing number of AI strategies and an exponentially increasing number of publications on AI, government officials and development practitioners alike could benefit from a trusted, curated and annotated list of written resources on the various aspects of AI.

- Project Type (Status): Report (Ongoing)
- Project Domain: Curated listing of AI publications
- AI Approach/Activity: Curated and annotated list of publications on the various aspects of AI, in support of STI roadmaps for the SDGs
- Related SDGs: SDG 17 Partnerships for the Goals
- Project Partners: DESA, IATT
- Challenges: Curation and selection of most important publications and other resources on the various aspects of AI strategies.
- Contacts: Mr Wei Liu, Sustainable Development Officer (liuw@un.org)

Project 11: FAO-UNSD project using satellite data and farm surveys to estimate crop statistics

The project aims to identify crops, map crop areas and estimate crop yield using satellite data and farm surveys.

- Project Type (Status): Software product (Development)
- Project Domain: Agriculture
- AI Approach/Activity: Supervised Machine Learning uses random forests and support vector machines – Datasets: Satellite data and Farm surveys
- Related SDGs: SDG target 2.4
- Project Partners: FAO
- Membership/Secretariat-driven: Driven by UNSD and FAO
- Resources/Skills: We work with highly skilled data scientists, statisticians and computer engineers of international and national statistical agencies.
- Technology: UN Global Platform, <https://datalab.officialstatistics.org/>, which will build on <https://e-sensing.github.io/sitsbook/>

- Challenges: While providing service through a Cloud-based environment, the biggest challenge is still making the tools and applications useful to national statistical agencies in developing countries by lowering the entry level of required technological knowledge.
- Contacts: Mr Ronald Jansen, Chief of Data Innovation and Capacity Branch, Statistics Division (jansen1@un.org)

Project 12: Estimating Port Calls using AIS vessel tracking data

The project aims to identify ships which are entering and leaving a port (by vessel type) using AIS vessel tracking data. AIS data are real-time data of ship positioning. This is obtained as a global feed.

- Project Type (Status): Software product (Development)
- Project Domain: Maritime Transport
- AI Approach/Activity: Supervised Machine Learning uses random forests to estimate vessel types and carrying capacities
- Datasets: AIS vessel tracking data (<https://unstats.un.org/wiki/spaces/AIS/pages/55672903/AIS+Handbook>)
- Related SDGs: SDG target 9.1
- Project Partners: UNCTAD, University of Oxford, ONS (UK), IMF, ADB and others;
- Membership/Secretariat-driven: Driven by UNSD – Project Website (links): <https://unstats.un.org/bigdata/task-teams/ais/index.cshtml>
- Resources/Skills: We work with highly skilled data scientists, statisticians and computer engineers of international and national statistical agencies, and research institutes.
- Challenges: UN Global Platform, see the IMF PortWatch application on the UN Global Platform (<https://portwatch.imf.org/>).
- Contacts: Mr Markie Muryawan, Chief of Trade Statistics Section, Statistics Division (Muryawan@un.org, +1 212 963 3083) United Nations Activities on Artificial Intelligence (AI) 41

Project 13: UN DataA

- Project short description: The UN Data platform is being modernized to improve access to authoritative statistical data, enhance search and analytics for decision-makers, and enable data interoperability across multiple domains. The initiative also makes UN Data AI-ready by harmonizing concepts for semantic integration, enriching metadata for provenance and context, and organizing data in extensible, machine-actionable structures. It supports natural language search using LLM technologies and enables scalable integration of datasets across domains and organizations.
- Project type (status): Software project (Development)
- Project Domain: Cross-domain data integration and analysis
- AI approach/activity: The project uses knowledge graph technologies and Natural Language processing for enhanced searchability and usability of statistical data
- Datasets: Global SDG Database, WHO, UNICEF, ILO
- Related SDGs: All SDGs
- Project Partners: WHO, UNICEF, ILO, ECLAC (pilot agencies)
- Membership/Secretariat-driven: Driven by DESA - Project Website: <https://unstats.un.org/UNSDWebsite/undatacommons/>
- Resources/Skills: Statisticians, Data engineers, Front-end Developers, User Experience Designers, Data Scientists
- Technology: UN Global Platform, Data Commons, .Stat, SDMX

- Contacts: Mr. Luis Gonzalez Morales, Chief of Data Innovation Section, Statistics Division (gonzalezmorales@un.org) / Ms. Yongyi Min, Chief of SDG Monitoring Section, Statistics Division (min3@un.org)

Project 14: Publication of International Statistical Classifications in Linked Open Data format

- Project short description: This pilot project aims to define a shared model for the joint publication, semantic enrichment, and governance of international statistical classifications using Linked Open Data (LOD) technologies. It includes publishing a set of classifications and geographic name identifiers in machine-actionable formats, validating a governance model, and consolidating partnerships among key stakeholders.
- Project type (status): Pilot
- Project Domain: Statistical classifications, Linked Open Data, semantic technologies
- AI approach/activity: Semantic integration of classification systems; Enabling AI-driven discovery and reasoning over hierarchies and code relationships
- Datasets: Statistical classifications and taxonomies under the custodianship of FAO and DESA Statistics Division
- Related SDGs: All SDGs
- Project Partners: FAO, Basque Centre for Climate Change
- Membership/Secretariat-driven: Co-led by DESA Statistics Division and FAO - Project Website: <https://caliper.integratedmodelling.org/>
- Resources/Skills: RDF and data modeling, Docker and web-based deployment, Data engineering; Statistical taxonomies and classifications
- Technology: UN Global Platform, Caliper
- Contacts: Mr. Luis Gonzalez Morales, Chief of Data Innovation Section, Statistics Division (gonzalezmorales@un.org) / Mr. Jullian Chow, Chief of Business Statistics Section (chowj@un.org)

Project 15: Addendum on AI and Digital Government

- Project Description: As part of the UN E-Government Survey, UN DESA published the Addendum on AI and Digital Government in 2024. This addendum explores the use and integration of artificial intelligence (AI) in public administration. It begins by highlighting AI's potential to enhance the quality of daily work and support the achievement of the Sustainable Development Goals (SDGs). At the same time, it addresses the challenges and ethical concerns associated with AI implementation. The addendum reviews various regulatory frameworks, including the European Union's AI Act, the U.S. Executive Order on AI, and Singapore's AI Governance Framework. It also emphasizes the value of regulatory sandboxes as effective tools for safely testing AI applications in controlled environments.

The addendum stresses the importance of capacity building, particularly through investments in education, to enable the effective and equitable deployment of AI. It presents exemplary cases of collaboration between public institutions, the private sector, and academia—such as the partnership with Carnegie Mellon University Africa. Moreover, it advocates for strengthening AI literacy among civil servants to ensure responsible and informed adoption of AI technologies across government sectors.

In its conclusion, the addendum offers strategic recommendations for governments. The first is to develop AI governance strategies by building on existing digital governance frameworks. The second recommendation calls for a balanced approach to AI development—one that integrates regulation, capacity-building, and the creation of supportive infrastructures to foster ethical and sustainable progress. Finally, the addendum encourages collective global action to ensure the inclusive, safe, and effective

advancement of AI technologies. This holistic approach aims to harness AI's benefits while minimizing its risks, ensuring that no one is left behind in the digital transformation.

- Entity Name: Digital government Branch.
- Department/Division: DESA – Division for Public Institutions and Digital Government
- Project Type/Output: Report
- Project Status: Development
- Project Start Year: 2024
- Project End Year: Continuous
- Project Domain: This is a cross-cutting project covering most fields, as it is about effective Governments and Public Institutions, Digital transformational and Digital Development for sustainable development.
- Data Source: E-government Development Index (EGDI) – UN-DESA
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, 9 – Industry, Innovation and Infrastructure, 10 – Reduced Inequalities, and 16 – Peace, Justice and Strong Institutions
- Links: <https://desapublications.un.org/sites/default/files/publications/2024-10/Addendum%20on%20AI%20and%20Digital%20Government%20%20E-Government%20Survey%202024.pdf>
- Contact information: Vincenzo Aquaro (aquaro@un.org) & Junho Lee(junho.lee@un.org)

Project 16: Enhancing E-Government Development Index Assessment with Generative AI

- As part of the UN E-Government Survey, UN DESA administers the Online Service Questionnaire (OSQ) every two years to evaluate the development of online services across Member States. The OSQ consists of approximately 52,000 questions, including 180 questions assessing national portals and 87 indicators for each of the 193 city portals. Despite the survey's importance, it presents operational challenges—particularly its labor-intensive nature, with each staff member responsible for manually reviewing over 12,800 questions.

In response to these challenges, the project team explored a new approach to streamline the OSQ assessment process. Since most OSQ responses require URL evidence, there is significant potential to leverage AI technologies. Specifically, the use of Generative AI, such as large language models (LLMs), can automate the verification of URLs and analyze website content, substantially easing the manual workload while enhancing overall survey precision.

Successful deployment of this AI-driven solution is expected to deliver several benefits. It will drastically reduce the time spent on manual review, allowing staff to concentrate on higher-value qualitative analysis. The number of questions requiring manual review could be cut from 52,000 to approximately 2,500. Additionally, it will improve survey quality by minimizing human errors and reliance on external volunteers, and enable faster turnaround times, making more frequent survey assessments feasible.

- Entity Name: Digital government Branch.
- Department/Division: DESA – Division for Public Institutions and Digital Government
- Project Type/Output: AI solution (algorithm)
- Project Status: Developing
- Project Start Year: 2025
- Project End Year: Continuous
- Project Domain: This is a cross-cutting project covering most fields, as it is about effective Governments and Public Institutions, Digital transformational and Digital Development for sustainable development.

- Data Source: E-government Development Index (EGDI) – UN-DESA
- Publicly available data: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, 9 – Industry, Innovation and Infrastructure, 10 – Reduced Inequalities, and 16 – Peace, Justice and Strong Institutions
- Contact information: Vincenzo Aquaro (aquaro@un.org) & Junho Lee(junho.lee@un.org)

Project 17: Developing Data Governance Policy Toolkit using AI.

- Project Description: As part of the UNPDF project, the United Nations Department of Economic and Social Affairs (UN DESA) has initiated the development of a Data Governance Policy Toolkit using Generative AI under the Digital Government Branch. Building on several years of support to 12 countries in strengthening their data governance capacities, this project addresses the growing need for efficient policy benchmarking. It leverages AI technologies, including large language models (LLMs), topic modeling, and sentence embeddings, to filter, cluster, and analyze a vast collection of over 18 million policy documents. By creating topic models and similarity graphs for six key elements of data governance, the project will enable faster, more accurate recommendations for countries seeking partnerships and best practices.
- The project emphasizes the use of AI to enhance the quality and timeliness of policy analysis while acknowledging the challenges of potential bias due to data limitations. To mitigate these risks, findings will be validated through consultation with national focal points. The initiative highlights strong collaboration with external partners, such as the Max Planck Institute in Germany, and internal expertise in AI model development. Furthermore, the project advocates for responsible AI use by maintaining strict data access protocols and ethical standards.
- In its broader vision, the project proposes a strategic shift in how digital policy benchmarking can be conducted—moving toward a data-driven, AI-assisted approach that saves time, increases accuracy, and empowers governments to make informed decisions. By investing in this methodology, UN DESA seeks to strengthen digital capacities globally, ensure fair comparisons across different governance models, and ultimately accelerate progress towards the Sustainable Development Goals (SDGs).
- Entity Name: Digital government Branch.
- Department/Division: DESA – Division for Public Institutions and Digital Government
- Project Type/Output: Report
- Project Status: Development
- Project Start Year: 2025
- Project End Year: 2025
- Project Domain: This is a cross-cutting project covering most fields, as it is about effective Governments and Public Institutions, Digital transformational and Digital Development for sustainable development.
- Data Source: E-government Development Index (EGDI) – UN-DESA
- Publicly available data: No
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, 9 – Industry, Innovation and Infrastructure, 10 – Reduced Inequalities, and 16 – Peace, Justice and Strong Institutions
- Links: <https://desapublications.un.org/sites/default/files/publications/2024-10/Addendum%20on%20AI%20and%20Digital%20Government%20%20E-Government%20Survey%202024.pdf>
- Contact information: Vincenzo Aquaro (aquaro@un.org) & Junho Lee(junho.lee@un.org)

2. Related Sustainable Development Goals

All SDGs

3. Relevant Links

<https://www.un.org/development/desa/en/>

Contact information: Vincenzo Aquaro (aquaro@un.org)

United Nations Development Programme



1. Description of Activities on AI

Project 1: AI Hub for Sustainable Development

- Project Description: The Italy-UNDP AI Hub for Sustainable Development is a collaborative initiative accelerating sustainable AI-driven industrial growth in Africa. It focuses on four key foundations of local AI ecosystems: Inclusive and representative datasets, Local AI talent development, Affordable green computing infrastructure and enabling environments for responsible AI adoption. Aligned with the commitment to equal partnership with African countries as in the Italy-Africa Mattei Plan, the AI Hub targets sectors including energy, agriculture, health, water, education and training, and infrastructure to harness AI's transformative potential. Complementing existing G7 initiatives and aligning with global AI efforts, the AI Hub serves as a multi-stakeholder platform to steer local, regional, and global private sector collective action across the African continent, ensuring AI benefits all.
- Department/Division: BPPS
- Project Type/Output: AI Country Support
- Project Status: Development
- Project Start Year: 2024
- Data Source: -
- Related Sustainable Development Goals (SDGs): 4. Quality Education, 8. Decent Work and Economic Growth, 9. Industry, Innovation, & Infrastructure, 13. Climate Action, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Italian G7 Presidency
- Relevant Links and Multimedia: <https://www.aihubfordevelopment.org/>
- Contact information: Alexander Hradecky, alexander.hradecky@undp.org

Project 2: AI Landscape Assessment and AI Strategy Development

- Project Description: To build an enabling environment for AI, UNDP has been conducting AI Landscape Assessments (AILA), a comprehensive analysis of national AI ecosystems, examining adoption rates, policy and regulatory frameworks, and ethical approaches. Since its launch in 2023, through AILA, UNDP provided governments from 10 countries with actionable insights and recommendations to inform their AI strategies and identify areas for targeted intervention (Sri Lanka, Colombia, Bhutan, Rwanda, Montenegro, Ecuador, Vietnam) with additional AILAs getting underway in 2024 or early 2025 in Mongolia, Uzbekistan, Malawi and Cote d'Ivoire. UNDP's AILA insights provide countries with a strong evidence base around which to develop their national AI agendas and governance frameworks.
- Department/Division: BPPS
- Project Type/Output: AI Country Support
- Project Status: Ongoing

- Project Start Year: 2023
- Data Source: Public Datasets, Internal Data
- Related Sustainable Development Goals (SDGs):
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://www.undp.org/digital/aila>
- Contact information: Laura Hildebrandt, laura.hildebrandt@undp.org; Darinka Vasquez, darinka.vasquez@undp.org

Project 3: AI Trust and Safety Re-Imagination Programme

- Project Description: The AI Trust and Safety Re-imagination Programme invites experts and innovators across academia, public and private sectors to collectively re-imagine Trust and Safety for Artificial Intelligence, towards equitable, locally-enabled and practical approaches that foster shared, public-private sector responsibility. The programme aims to advance T&S beyond reactive measures, by creating practices and tools that actively anticipate and prevent harm and integrate safety and security by design. These solutions ought to be tailored to the sensitivities of local contexts and the needs of impacted communities.
- Department/Division: BPPS
- Project Type/Output: AI Country Support
- Project Status: Development
- Project Start Year: 2024
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 10. Reduced Inequality, 12. Responsible Consumption and Production, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals.
- Partnership(s)/Collaborator(s): Global Center on AI Governance; Global Network of Internet and Society Centers (NoC); Anthropic; people+ai, EkStep Foundation; Distributed AI Research; TrustLab Inc.; New York University Abu Dhabi; Pontifical Academy of Social Sciences; Partnerships on AI; Zentropi; World Economic Forum
- Relevant Links and Multimedia: <https://www.undp.org/digital/ai-trust-and-safety>
- Contact information: Jennifer Louie, jennifer.louie@undp.org

Project 4: Data to Policy Navigator – AI for Public Policy

- Project Description: The Data to Policy Navigator was created in early 2022 by UNDP's Chief Digital Office, in partnership with the German Development Cooperation, as a response to the growing need for governments to better integrate high-quality, relevant data from emerging sources into policymaking. The Navigator offers a step-by-steps guide with a range of instructional articles, practical use cases, and an open data repository. Building on its success, UNDP and its partners are expanding the platform's offerings by developing AI for Public Policy content – equipping policymakers with foundational knowledge and practical insights into how emerging AI technologies can benefit evidence-based decision-making while addressing associated risks. In addition, a Data to Policy Chatbot is being developed using one of the latest large language models to support users by providing quick, customizable and interactive guidance, helping policymakers navigate content and resources available on the Navigator more easily.
- Department/Division: BPPS
- Project Type/Output: AI Country Support / AI Capacity Building
- Project Status: Development
- Project Start Year: 2024
- Data Source:

- Related Sustainable Development Goals (SDGs): SDG5 Gender Equality, SDG 6 Clean Water and Sanitation, SDG 7 Affordable and Clean Energy, SDG 8 Decent Work and Economic Growth, SDG 9 Industry, Innovation and Infrastructure, SDG 10 Reduced Inequalities, SDG 11 Sustainable Cities and Communities, SDG 12 Responsible Consumption and Production
- Partnership(s)/Collaborator(s): GIZ, BMZ, Expert Panel of the Data to Policy Initiative (independent experts and experts from Meta, IBM, GPSSD, ODI, Google, Aapti Institute, Oxford Insights, The Digital Impact Alliance, International Panel on Information Environment, Open Data Charter and Open Development Cambodia)
- Relevant Links and Multimedia: <https://www.datatopolicy.org/ai-for-policy>
- Contact information: Christophe Ji, christophe.ji@undp.org

Project 5: GenAI for Public Engagement and Open Parliament

- Project Description: The primary objective of this project is to integrate Generative AI technologies within the framework of the Digital Transformation Strategy of the National Assembly. This integration aims to achieve the following:
 - Utilise GENAI tools to enhance the efficiency and effectiveness of parliamentary operations. Improve democratic governance by providing data-driven insights and automating routine tasks.
 - Deploy AI-powered platforms for better communication and outreach, enabling and enhancing citizen engagement and disseminating the workings of Parliament. Integrate AI to assist in drafting, analysing, and amending legislation, ensuring a more efficient and accurate legislative process.
 - Optimize resource allocation and utilization through AI-driven insights, contributing to the effective oversight of the Government by the National Assembly.
 - Embed AI within existing ICT systems to enhance data management, communication, and workflow efficiency in parliamentary affairs.
 - Equip parliamentarians with AI tools to better understand constituents' needs, make informed decisions, and fulfil their representative roles more effectively.
 - Support the transition to a paperless National Assembly through AI solutions, contributing to sustainability and reducing the environmental footprint.
- Department/Division: Regional Bureau for Africa
- Project Type/Output: AI Country Support
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Partner/Purchased Data
- Related Sustainable Development Goals (SDGs): 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): National Assembly of Mauritius
- Relevant Links and Multimedia: N/A internal
- Contact information: Vichitra Purdassee, vichitra.purdassee@undp.org

Project 6: Local AI Language Accelerator Programme

- Project Description: Artificial intelligence, especially natural language-based technologies, have emerged as a transformative tool for sustainable development, creating new opportunities to foster inclusion and drive social and economic growth. However, not all societies can benefit from this innovation equally: many linguistic communities are underrepresented online and therefore face major hurdles in fully harnessing the benefits of AI innovation. UNDP's Local Language Accelerator Programme aims to make the benefits of AI available to diverse populations regardless of the language they speak. In

collaboration with technical and academic partners, it tackles key hurdles that limit the potential of low-resource language AI ecosystems and burden new AI start-ups: lack of data, extractive data economies, unsustainable funding, and limited opportunities for cross-sector and cross-border collaboration. The Programme's country implementations support the creation of high-quality, accessible voice or text datasets in local languages to ensure that these resources are available for entrepreneurs to create AI solutions which are representative, accurate, and available to speakers of local or Indigenous languages. It also pilots community-driven platforms, frameworks and data licenses designed to ensure proper consent, robust data provenance, and continued community benefit – including support for local start-ups active across various domains. To reinforce this practical work, UNDP also prioritises global and regional advocacy to increase inter-institutional collaboration and support for the digitalisation of local languages in cross-border linguistic communities, fostering a collaborative ecosystem that encourages stakeholders from government, academia, the private sector, and civil society to actively contribute to the development and maintenance of inclusive and context-responsive AI solutions, systems and digital infrastructures.

- Goal: The programme will accelerate the digitization of low-resource languages through a globally replicable methodology enabled by responsible and scalable partnership models. It will support the reach, relevance and safety of existing AI models and pilot community-led data solutions to catalyse new Language AI innovation and expand the availability of AI technologies for start-ups, public administration, and other stakeholders.
- How countries can engage: Collaborate to identify high-impact use-cases for Language AI and accelerate the digital inclusion of local language speakers. Establish local, regional and global partnerships for local language digitization. Leverage the methodology for digitizing local languages (being developed). Leverage the global partner base and Expert Group for access to expertise, compute, and data (being developed).
 - Department/Division: BPPS
- Project Type/Output: AI Country Support
- Project Status: Development
- Project Start Year: 2024
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 8. Decent Work and Economic Growth, 9. Industry, Innovation and Infrastructure, 10. Reduced Inequalities, 4. Quality Education, 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): Cohere Labs, Mozilla Common Voice, University of Ghana, GhanaNLP, Serbian Institute of Mathematical Sciences, National Library of Serbia, Kytabu, ACALAN, Kamusi Project, CLEAR Global, Data.org, Masakhane Research Foundation, iGenius, Mauritanian Machine Intelligence Hub, ToumAI Analytics, iAfrika Digital, NeuraVox, VIOU Digital, Audiopedia, First Languages AI Reality, Lelapa AI, CARIA – Centre Africain de Recherche en Intelligence Artificielle
- Relevant Links and Multimedia: <https://www.undp.org/digital/blog/every-language-matters-building-more-inclusive-digital-future>
- Contact information: Alena Klatte (alena.klatte@undp.org)

Project 7: ABADEI Chatbot

- Project Description: ABADEI project implemented by Afghanistan Country Office collects a vast amount of data from multiple sources, stores in a SQL database and visualises data on a web-based portal. The ABADEI portal is soon expected to introduce a chatbot powered by Azure OpenAI where users could ask questions about the data.
- Department/Division: Regional Bureau for Asia and the Pacific and BMS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing

- Project Start Year: Q3/2023
- Project End Year: Q3/2025
- Data Source: Azure SQL
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 3. Good Health & Well-being, 10. Reduced Inequalities, 11. Sustainable Cities & Communities
- Partnership(s)/Collaborator(s): Afghanistan Government
- Links and Multimedia: <https://www.undp.org/afghanistan>
- Contact information: Arvind Kumar (arvind.kumar@undp.org); Firuz Saidkhadzhaev (firuz.saidkhadzhaev@undp.org)

Project 8: AI Chatbot Voli

- Project Description: AI Chatbot, based on Salesforce, which answers 200,000+ candidate queries annually. The bot also created Service Desk cases on behalf of users who need further support. Technology: Salesforce-based, Einstein Bots
- Department/Division: UNV
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2020
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life On Land, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): The German Federal Ministry for Economic Cooperation and Development (BMZ)
- Relevant Links and Multimedia: <https://www.unv.org/Success-stories/Enhancing-responsiveness-stakeholders-through-UNVs-new-Service-Desk>
- Contact information: support@unv.org

Project 9: AI for Sustainable Development

- Project Description: This project proposes an AI-powered platform designed to bridge the information gap and empower the region and is expected to result in accurate monitoring, data-driven insights, an early warning system, forecasting capabilities, and scenario analysis, all aimed at driving sustainable development in the Arab Region. It is poised to address the region's data deficiency challenge comprehensively and contribute significantly to achieving the Sustainable Development Goals.
- Department/Division: RBAS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: N/A
- Data Source: Satellite imagery, weather data, social media data, news reports, and more
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership(s)/Collaborator(s): Multiple partners, including Office of the Minister of AI in the UAE, MBZUAI, e&, MBRSG, UICCA, and more partners to be announced.

- Links and Multimedia: ai4sd.info, undp.org/arab-states/press-releases/undp-and-uae-launch-new-platform-leveraging-power-artificial-intelligence-accelerating-progress-towards-sustainable
- Contact information: Dany Wazen (dany.wazen@undp.org) and Yasmine Hamdar (yasmine.hamdar@undp.org)

Project 10: AI for Sustainable Development Initiatives

- Project Description: UNDP Morocco's suite of AI initiatives aims to leverage artificial intelligence across multiple sectors to address sustainable development challenges. These initiatives include monitoring market integrity, tracking SDG achievements using big data, evaluating SDG financing gaps, employing AI in urban planning and climate vulnerability, and assessing AI readiness. Each project uses AI to enhance decision-making, optimize resource management, and improve resilience against environmental, economic, and social challenges.
- Department/Division: Regional Bureau for Arab States (RBAS)
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Public Datasets, Web Scraping
- Related Sustainable Development Goals (SDGs): 1. Zero Hunger, 3. Good Health & Well-being, 1. No Poverty, 5. Gender Equality, 7. Affordable & Clean Energy, 6. Clean Water & Sanitation, 8. Decent Work and Economic Growth, 9. Industry, Innovation, & Infrastructure, 11. Sustainable Cities & Communities, 13. Climate Action, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia:
- Contact information: Mahir.chekkoury@undp.org, Najoua.soudi@undp.org

Project 11: AI for Tourism

- Project Description: Tourism stands as a priority for sustainable development in both Malawi and Zanzibar (Tanzania). However, both regions encounter challenges such as inadequate infrastructure, low-quality service, and ineffective marketing, leading to a lower ranking in the Travel & Tourism Competitiveness Index compared to their counterparts. Addressing these issues involves employing AI for data gathering and analysis to identify trends and insights, facilitating informed decision-making and improving tourism development, visitor experiences, and revenue generation. The AI for Tourism project leverages advanced technologies such as Artificial Intelligence, Natural Language Processing (NLP), Geospatial Information Systems (GIS) to unlock real-time insights from unstructured data sources online reviews. The SDG AI Lab, in partnership with country Accelerator Labs, is developing an interactive, AI-powered web platform to help stakeholders understand tourist sentiments, track changes in visitor interests, and identify emerging destinations and gaps in tourism services. Through this data, tourism businesses and policymakers will be better positioned to improve service offerings, tailor experiences, and enhance promotional strategies - ultimately boosting customer satisfaction and increasing local economic benefits.
- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2025
- Data Source: Public Data, Web Scraping (Social Media Data, Online Travel Platforms)

- Related Sustainable Development Goals (SDGs): 1. No Poverty, 8. Decent Work and Economic Growth, 9. Industry, Innovation, & Infrastructure, 17. Partnerships for the Goals, 12. Responsible Consumption and Production
- Partnership(s)/Collaborator(s): UNDP Malawi Accelerator Lab, UNDP Tanzania Accelerator Lab, Zanzibar Commission for Tourism & Presidential Delivery Bureau (Zanzibar)
- Links and Multimedia: www.jozaniai.org, [Jozani Demo](#)
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org), Peter Nyanda (peter.nyanda@undp.org)

Project 12: AI longlisting, semantic search and AI summarization

- Project Description: UNV screens over 100,000 candidate applications annually. An AI engine is being developed to aid recruiters in longlisting. This AI engine consists of three parts: ranking of the candidates (based on the match between the 'job description' and candidate profile), semantic search in applicant profiles, including taking into consideration the 'job description' context, and AI summarization of the applicant information.
- Department/Division: UNV
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life On Land, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): NTTData
- Relevant Links and Multimedia: Not yet available
- Contact information: support@unv.org

Project 13: AI-powered Data Management and Analysis for SDG Finance

- Project Description: In support of the Integrated National Financing Frameworks (INFF), ICPSD SDG AI Lab developed a data pipeline and interactive PowerBI dashboard to visualize financing strategies across more than 85 countries. The dashboard and standardized taxonomy help analyze national reforms, enabling strategic planning and identifying trends in sustainable financing. The project also laid the groundwork for future AI applications in SDG-aligned finance.
- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: Data pipeline, PowerBI dashboard, taxonomy
- Project Status: Completed
- Project Start Year: 2023
- Project End Year: 2024
- Project Domain: SDG Finance
- Data Source: INFF Reports
- Related Sustainable Development Goals (SDGs): 16. Peace, Justice & Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Integrated National Financing Framework (INFF)

- Links and Multimedia: N/A
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 14: Artificial Intelligence for Development Analytics (AIDA)

- Project Description:
- The Artificial Intelligence for Development Analytics (AIDA) is a system developed to search inside more than 6,000 UNDP Evaluation Reports and generate insights based on sentiment analysis and topic modelling. It provides 4 search types, including by each Sustainable Development Goal.
- Department/Division: Independent Evaluation Office
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing, AIDA 2.1 completed in 2024 with improved performance and user interface
- Project Start Year: 2020
- Data Source: UNDP Evaluation Reports from centralised and decentralised evaluations <http://erc.undp.org>
- Related Sustainable Development Goals (SDGs): Project covers work related to all SDGs.
- Partnership(s)/Collaborator(s): UNICC and Amazon Web Services.
- Relevant links and Multimedia: <https://aida.undp.org>
- Contact information: Anish Pradhan (anish.pradhan@undp.org)

Project 15: Argentina AI - Argentine Intelligence

- Project Description: Since 2023, UNDP Argentina has been leading efforts to shape a national conversation on Artificial Intelligence (AI), with the goal of promoting inclusive, democratic, and development-oriented applications. In the context of the country's 40th anniversary of democracy, the Office developed an AI-powered tool to analyze presidential speeches from 1983 to 2023, using Natural Language Processing (NLP) to identify shifts in political discourse over four decades. This tool served as a central component of an interactive visualization aimed at fostering dialogue and reducing political polarization by showing how AI can be used constructively—countering narratives that amplify division. The broader project also included expert interviews, seminars in partnership with Universidad de San Andrés (UdeSA), and engagements with public institutions to support cohesive national policymaking on AI. In 2024, the Ministry of Foreign Affairs requested the UNDP to organize a seminar to provide input for the unit representing Argentina in the G20. During the seminar, experts from civil society, academia, and the private sector discussed the implications of AI development on the labor market and education.
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 4. Quality Education, 16. Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): University of San Andrés (UdeSA), Argentine Ministry of Foreign Affairs.
- Relevant Links and Multimedia: <https://www.undp.org/es/argentina/proyectos/ia-inteligencia-argentina>
- Contact information: [Lorena Moscovich](mailto:Lorena.Moscovich@undp.org) (lorena.moscovich@undp.org)

Project 16: Big data and AI for Poverty/Vulnerability Mapping in Cambodia

- **Project Description:** Cambodia has made substantial progress in reducing poverty in recent years, with the goal to eradicate extreme poverty by 2030. The poverty rate has decreased from 26.3 percent in 2014 to 17.8 percent in 2019 (MoP, 2021). Nevertheless, significant segments of the population remain vulnerable to economic shocks and setbacks, the latest being the COVID-19 pandemic which has reversed the country's development gains to the 2018 level. The reduction of multidimensional poverty in Cambodia continues to be on positive trend despite health and economic shocks in recent years. The latest global Multidimensional Poverty Index (MPI) report, published by UNDP and the University of Oxford in 2023, indicates that the incidence of multidimensional poverty in Cambodia fell from 36.7 percent to 16.6 percent. To address the challenges of poverty eradication, access to periodic and timely data is crucial. UNDP have embraced advancements in technology, particularly in Artificial Intelligence (AI), to develop the Cambodia Poverty/Vulnerability Mapping tool. This tool combines traditional and big data sources to provide a multidimensional perspective on poverty and vulnerability in Cambodia. By integrating different datasets, policymakers can identify patterns and interactions that are often overlooked when studying poverty separately. The tool allows users to explore poverty vulnerability alongside specific indicators such as education, health, living standards, and monetary factors at various geographic levels. The tool is now transferred to the National Institute of Statistics.
- **Department/Division:** Regional Bureau for Asia and the Pacific
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Complete
- **Project Start Year:** 2022
- **Data Source:** Public Datasets, Web Scraping, Partner / Purchased Data, Internal Data
- **Related Sustainable Development Goals (SDGs):** 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 10. Reduced Inequality
- **Partnership(s)/Collaborator(s):** Cambodia's National Institute of Statistics
- **Relevant Links and Multimedia:** <https://vulnerability-mapping.nis.gov.kh/en/map/>
- **Contact information:** Khoun Theara, theara.khoun@undp.org

Project 17: Briefing Notes Generator

- **Project Description:** After having submitted an invitation document for a meeting, a first draft briefing note is created. A chatbot functionality allows the user to iterate with the bot to improve the draft gradually before downloading it to MS Word. Methodology: Multi-agent tool using different LLMs Algorithms: GPT4o Frameworks: next.js
- **Department/Division:** BPPS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data, Web Scraping
- **Related Sustainable Development Goals (SDGs):**
- **Partnership(s)/Collaborator(s):** N/A
- **Relevant Links and Multimedia:** Internal only
- **Contact information:** Raphael Schönball (raphael.schoenball@undp.org), Nicola Holden (nicola.holden@undp.org)

Project 18: Brazil Justica 4.0

- **Project Description:** In 2023, the "Justiça 4.0" Program launched four new Artificial Intelligence models for classifying court cases, contributing to the reduction of trial time and the number of appeals in the Brazilian courts. All models were developed in partnership with Federal Universities as follows:
 - PEDRO (Court Precedents Extraction and Discovery Platform): Developed in partnership with the University of Brasília (UnB), the model infers, from the initial petitions, the qualified precedents of the Federal Supreme Court (STF) and the Superior Court of Justice (STJ), also showing the degree of similarity with the analyzed case.
 - KAIROS (K-Means Clustering Similarity for Legal Documents): Groups processes using an unsupervised machine learning method and can be used to manage the collection of processes and classify them by subject, branch, among others. It is the result of a partnership with the Federal University of Goiás (UFG).
 - ALICIA (Linguistic Analysis for Automated Classification): Developed in partnership with the University of Fortaleza (Unifor), it promotes assignment of subjects based on Unified Procedural Tables.
 - ANA (Automated Standards Analysis): Model trained for retrieving legal texts and associated jurisprudential precedents, developed with Unifor.
- **Gabinete do Juízo" (Judges Office):** The "Gabinete do Juízo" (Judges Office) is an innovative digital solution developed under Brazil's Justiça 4.0 program, aiming to modernize and enhance the efficiency of the judiciary. This platform integrates advanced technologies, including artificial intelligence (AI), to streamline judicial processes and support decision-making. Key AI functionalities encompass automated data extraction from legal documents, classification of legal matters, and identification of relevant precedents, thereby reducing manual workload and expediting case analysis. By leveraging machine learning algorithms and natural language processing, the Gabinete do Juízo facilitates more accurate and timely judicial decisions, contributing to a more accessible and effective justice system. This initiative reflects the broader objectives of Justiça 4.0 to foster innovation, collaboration, and transparency within Brazil's judicial framework.
 - Department/Division: Regional Bureau for Latin America and the Caribbean
 - Project Type/Output: AI Tool or Solution
 - Project Status: Ongoing
 - Project Start Year: 2021
 - Project End Year: 2026
 - Data Source: Partner Data (Brazilian Judiciary Database)
 - Related Sustainable Development Goals (SDGs): 16. Peace, Justice and Strong Institutions
 - Partnership(s)/Collaborator(s): Brazil's National Council of Justice
 - Relevant Links and Multimedia: <https://www.cnj.jus.br/tecnologia-da-informacao-e-comunicacao/justica-4-0/gabinete-do-juizo/> <https://www.cnj.jus.br/sistemas/plataforma-sinapses/>
 - Contact information: julia.matravalgyi@undp.org, andrea.bolzon@undp.org

Project 19: CAD4TB AI kit for TB screening

- **Project Description:** The CAD4TB AI kit for TB screening is an innovative initiative aimed at improving early diagnosis and efficiency of tuberculosis detection, particularly in low-resource settings. It uses advanced AI to analyze chest X-rays, providing a TB probability score and heatmap indicating potential abnormalities. Available in both offline and online versions, CAD4TB is portable and integrates seamlessly with existing health infrastructure,

supporting patient registration and reporting. The initiative aims to enhance TB control efforts by providing quick, accurate screening, supporting remote areas, and aligning with global health goals. **AI Methodology:** The CAD4TB system uses a structured AI methodology that involves problem identification, data collection, model selection, and ongoing evaluation. This approach ensures that the AI system meets specific objectives and performs reliably in real-world scenarios. **Algorithms** CAD4TB utilizes advanced deep learning algorithms to analyze chest X-rays and detect potential TB cases. These algorithms have been independently tested and have shown high accuracy, with CAD4TB achieving the highest overall accuracy in a multi-country study. **Frameworks** The AI framework used in CAD4TB includes deep learning models that are trained on large datasets of chest X-rays. These models are designed to provide a tuberculosis probability score and an abnormality score, along with a heatmap indicating potential TB abnormalities. **Type of Deployment** CAD4TB is available in both offline (CAD4TBbox) and online (CAD4TBcloud) versions. The offline solution is optimal for locations with unreliable internet connections, enabling on-site processing of chest radiography images. The system is portable and integrates seamlessly with existing health infrastructure, supporting patient registration, symptoms registration, and patient reporting. This comprehensive approach ensures that CAD4TB can be effectively deployed in various settings, particularly in low-resource areas, to improve early diagnosis and efficiency in TB screening.

- Department/Division: Regional Bureau for Europe and the Commonwealth of Independent States
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data, Partner / Purchased Data
- Related Sustainable Development Goals (SDGs): 3. Good Health and Well-being
- Partnership(s)/Collaborator(s): Partnership with NTP of Turkmenistan
- Relevant Links and Multimedia: Only internal
- Contact information: Halil Veisov - halil.veisov@undp.org. Halmurad Garayev - halmurad.garayev@undp.org

Project 20: CancerCenter.AI project in Georgia

- Project Description: The CancerCenter.ai project in Georgia employs AI technologies to address challenges in cancer diagnosis. Specialized platforms like PathoViewer and RadiologyViewer enable faster and more accurate analysis of medical images, supporting medical professionals in decision-making. The initiative includes PathoCam for digitizing pathology materials. The project aims to expedite the diagnostic process, particularly in regions facing a shortage of pathologists and radiologists. With a focus on cost-effectiveness and scalability, the project plans to implement tools in Georgia and potentially expand to other regions, increasing the number of serviced doctors and accelerating the diagnosis process.
- Department/Division: BPPS, Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Partner Data
- Related Sustainable Development Goals (SDGs): 3. Good Health and Well-being
- Partnership(s)/Collaborator(s): Hepato-Pancreatic-Biliary and Transplantation Association Surgeries of Georgia (GAHPBTS)
- Relevant Links and Multimedia: <https://polishchallengefund.org/cancer-center/>
- Contact information: Khatuna Sandroshvili (khatuna.sandroshvili@undp.org)/ Ketki Bhatia (ketki.bhatia@undp.org)

Project 21: Care Georeferencing Tool for Inclusive Care Systems in Latin America and the Caribbean

- **Project Description:** The Care Georeferencing Tool is an AI-powered decision-making support system designed to map the supply, demand, and accessibility gaps in care services across Latin America and the Caribbean. By identifying “care deserts”, areas with high demand and low accessibility, it helps governments target critical interventions. The tool combines traditional data (census, administrative records, surveys) with innovative AI-enabled data collection methods such as web scraping, collaborative mapping, and satellite imagery.
- **Department/Division:** Regional Bureau for Latin America and the Caribbean
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2023
- **Data Source:** Administrative records, national census data, Satellite imagery, web scraping, collaborative mapping, user surveys
- **Related Sustainable Development Goals (SDGs):** 3. Good Health and Well-being, 5. Gender Equality, 10. Reduced Inequalities, 11. Sustainable Cities and Communities
- **Partnership(s)/Collaborator(s):** National governments of Honduras, Peru, Colombia, Mexico, local municipalities
- **Relevant Links and Multimedia:** N/A
- **Contact information:** Daniela De Los Santos (daniela.de.los.santos@undp.org)

Project 22: Chatbot MARIA (Automated Module for Information Assistance and Response)

- **Project Description:** Chatbot MARIA is a free and confidential AI-powered virtual assistant designed to support the prevention of violence against women, girls, and adolescents in Honduras. Developed under the Infosegura Regional Project, MARIA provides users with real-time information to help identify signs of violence, understand their rights, access local support services, receive legal guidance, and develop a personalized safety plan. Hosted by the National Police of Honduras, MARIA uses Natural Language Processing (NLP) in Spanish to engage users in a secure and empathetic way. It is accessible via web browser with no download required, ensuring user privacy and broad accessibility.
- **Department/Division:** Regional Bureau for Latin America and the Caribbean
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Partner / Purchased Data
- **Related Sustainable Development Goals (SDGs):** 5. Gender Equality, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals,
- **Partnership(s)/Collaborator(s):** Ministry of Security of Honduras, National Police of Honduras, UNDP (InfoSegura Project), USAID, 911 Emergency System, Local civil society organizations working on women’s rights and survivor support
- **Relevant Links and Multimedia:** [https://maria.policianacional.gob.hn/](https://maria.policianacional.gob.hn;); Blog (English) - “Aliadas o amenazas: ¿Puede la IA salvar vidas?”
- **Contact information:** Carmela Patricia Lanza (carmela.lanza@undp.org)

Project 23: DiCRA - Data in Climate Resilient Agriculture

- **Project Description:** Data in Climate Resilient Agriculture (DiCRA) is a digital public good developed by the UNDP India Accelerator Lab. It provides open access to key geospatial

data on 50 million hectares of farmland across India, relevant to climate resilient agriculture. The solution is also a data collaborative: people with different backgrounds, united by their interest in how data can support better agricultural practices, contribute to the platform and its content.

- DiCRA was initially developed through a partnership between the Government of Telangana and UNDP, in collaboration with Zero Huger Lab (Netherlands), JADS (Netherlands), ICRISAT, PJTSAU, and RICH. It was part of UNDP's 'Data for Policy' initiative supported by Rockefeller Foundation.
- The solution is now managed by the Indian National Bank for Agriculture and Rural Development (NABARD) that uses it for policy making, resource allocation, as well as research and development activities, with UNDP's technical support. The DiCRA community of developers is still committing changes to the GitHub repository, albeit at a lower frequency since NABARD took ownership.
 - Department/Division: EXO, Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2022
- Data Source: Public Data, Partner / Purchased Data, Third-Party API
- Related Sustainable Development Goals (SDGs): Climate
- Partnership(s)/Collaborator(s): Government of Telangana and UNDP, in collaboration with Zero Huger Lab (Netherlands), JADS (Netherlands), ICRISAT, PJTSAU, and RICH. It is part of UNDP's 'Data for Policy' initiative supported by Rockefeller Foundation.
- Relevant Links and Multimedia: <https://dicra.nabard.org/>
- Contact information: Jeremy Boy, jeremy.boy@un.org, Parvathy Krishnan parvathy.krishnan@undp.org

Project 24: Crisis Risk Dashboard: Predictive Analytics and Multi-dimensional Analysis

- Project Description: The Risk Anticipation Hub is developing predictive analytics components to the Crisis Risk Dashboards and related products. This includes:
 1. Better anticipation of conflicts & impacts of prevention
We leverage the most recent advances in machine learning to obtain conflict forecasts and conflict prevention impact estimates to improve risk anticipation. For this we combine the world-leading conflict forecasting systems in a new data product that will enable forward-looking risk analysis and decision-support, including a prioritisation of countries for prevention activities and sub-national forecasts of conflict risks.
 2. Conflict forecasting using news data
We utilise GDELT's high frequency, text-based data to capture the "chatter" of what is happening in local contexts to see if it is predictive of conflict. We limited the geographic scope to the Horn of Africa and aggregated to each country's admin level 1 and to a 1-2 week time interval. With an escalation of ACLED fatalities as the outcome to predict, we utilise article document embeddings as the main predictors, and conflict history and some static features (population density, etc.) as additional features.
 3. Multi-dimensional analysis
We utilise AI and machine learning-based technologies for in-depth multi-dimensional analyses. The types of analyses include:
 - Natural language processing and text analysis - Given a body of texts, we can find the topics and representative keywords, commonly used terms and phrases, and sentiments and emotions reflected in the content. We can also categorise texts into predefined groups to find trends and summarise and distil text into its most essential content. This includes analysis of social media data.

- Hotspot and spatial analysis - Given data on events or phenomena, hotspot analysis can find patterns and uncover relationships between spatial information. We can identify geographic areas with significantly high (or low) levels of incidents for further investigation
- Outlier and anomaly detection - Given data on events or measurements, various algorithms and methods can be used to find unexpected values that differ significantly from the norm or usual trend. This can alert us to further monitoring or investigation.
- Time series analysis - Given data recorded over time at regular intervals, we can identify underlying trends and detect seasonality and repeating patterns to better understand a context.
- Department/Division: Crisis Bureau
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Public Data
- Related Sustainable Development Goals (SDGs): 9. Industry, Innovation, & Infrastructure, 16. Peace, Justice & Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Several
- Links and Multimedia: N/A
- Contact information: Sun-joo Lee (sun-joo.lee@undp.org)

Project 25: Digital Social Vulnerability Index (DSVI)

- Project Description: The Digital Social Vulnerability Index (DSVI) is an innovative digital solution developed by the SDG AI Lab to support targeted vulnerability assessments. It enables the analysis of location-specific vulnerabilities and their root causes through high-resolution maps, technical datasets, and knowledge products. Integrating Geographic Information Systems (GIS), Artificial Intelligence (AI), and Machine Learning (ML), DSVI generates interactive, data-driven visualizations that highlight population vulnerability to stressors such as droughts, famines, socioeconomic shocks, natural disasters, and climate-related risks. Since 2022, DSVI has been implemented in over 10 countries across Sub-Saharan Africa and Eurasia. In the Horn of Africa, it was specifically used for drought vulnerability mapping. DSVI was featured at the Istanbul Innovation Days 2025 in a session joined by UNDP Administrator Achim Steiner. Its application has led to improved resource allocation, enhanced crisis response, and greater support for resilience building.
- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2022
- Data Source: Public Data (USAID Demographic and Health Surveys (DHS), satellite imagery, open-source data)
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 6. Clean Water & Sanitation, 8. Decent Work and Economic Growth, 9. Industry, Innovation, & Infrastructure, 10. Reduced Inequalities, 11. Sustainable Cities & Communities, 13. Climate Action, 16. Peace, Justice & Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): National stakeholders (Ministries and Statistics Agencies)
- Links and Multimedia: <https://www.undp.org/policy-centre/istanbul/news/iicpsd-undp-tajikistan-hosted-training-digital-social-vulnerability-index-dsvi>
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 26: eMonitor+

- **Project Description:** eMonitor+ is a social analysis and research tool developed by UNDP to expand the capacity of national and regional partners in analysing trends related to hate speech, disinformation, and online violence targeting women, journalists, and marginalized groups. eMonitor+ integrates custom-built AI classifiers and fine-tuned LLMs, including GPT and Llama to analyze and flag content. Human analysts are central in guiding analysis, validating results, and ensuring nuanced interpretation. Findings are visualized on intuitive dashboards, such as PowerBI and Kibana, offering insights that empower stakeholders to formulate targeted strategies for safer and more inclusive online spaces. eMonitor+ is currently active in more than 15 countries globally on 4 different continents. Outcomes can include advancing long-term digital resilience, particularly in the form of innovative policies, encouraging whole-of-society responses, and enhancing media literacy and public awareness. **Technology:** Transformer-based models (GPT, Llama, BERT), naive bayes, support vector machines, azure deployment, Docker.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2018
- **Project End Year:** -
- **Data Source:** Social media
- **Related Sustainable Development Goals (SDGs):** SDG 5 - Gender Equality, SDG 10 - Reduced Inequalities, SDG 16 - Peace, Justice & Strong Institutions
- **Partnership(s)/Collaborator(s):** Public institutions, human rights institutions, Media Institutions, Civil Society, Academia, and Electoral Management Bodies
- **Links and Multimedia:** <https://www.undp.org/arab-states/emonitor>
- **Contact information:** Osama Aljaber (osama.aljaber@undp.org)

Project 27: EVA.AI

- **Project Description:** EVA.ai is a key talent management platform for UNDP, where a number of critical talent management functions are performed. The initiative is hosted jointly by the Crisis Bureau on behalf of the GPN and OHR. UNDP's Global Talent Marketplace and Capacity Mapping initiatives on EVA.ai received the "Innovation in Recruitment" award at the Career Development Roundtable (CDR), the largest multilateral HR event recognizing excellence in human resource management. The Global Talent Marketplace combines the ExpRes Consultant Roster used in crisis and non-crisis deployments and an internal marketplace used for Detail Assignments. The EVA.ai platform leverages AI, machine learning, and robotic process automation. UNDP leverages AI, machine learning, and robotic process automation to facilitate over 2,500 deployments annually. The UNDP Global Policy Network (GPN) ExpRes roster is a deployment mechanism that connects consultants with diverse skill sets to projects and initiatives that address the world's most pressing development challenges. The GPN ExpRes roster is designed to retain pre-vetted experts for swift deployments to UNDP offices worldwide, including those in crisis settings. There were 2,500+ deployments every year over the last three years through this UNDP mechanism, supporting over 140 UNDP offices. The roster currently comprises 10,000+ vetted consultants. Thematic and general global calls are conducted periodically to augment roster capacities. The internal component of the marketplace facilitates Detail Assignments and Temporary Assignments for UNDP personnel. Beyond the Global Talent Marketplace, EVA.ai also facilitates job matching using OpenAI. The LLM is used to match candidates to Detail Assignments, consultancies, and jobs by generating prompts that match job descriptions to candidate profiles. RPA is used end-to-end, from vacancies being ingested into EVA.ai from Oracle to vacancy notifications being sent to candidates. A widget was used on EVA.ai's chatbot, through which 14,000 colleagues

engaged in the campaign and over 9,500 UNDP personnel provided skills and other relevant information to build profiles on EVA. This has allowed the organization to gain a better understanding of its internal workforce. All annual rotation exercises for RRs and DRRs, as well as leadership pool replenishment exercises, have taken place on EVA.ai—from identifying candidates to shortlisting reviews—since 2023. In Afghanistan, the Crisis Operations Lab used EVA.ai to launch the HR SWAT Team, speeding up hiring for 130+ personnel. In Ukraine, an HR SURGE Team of 8 advisors and consultants is aiding recruitment for 150+ professionals, mostly Ukrainian. Facilitation of the mobility policy through proactive job recommendations to mobility-eligible candidates is done through matching of job vacancies and notifications using RPA. AI-driven automations streamline recruitment by reducing long-listing time for thousands of applications, enabling online shortlisting and scoring, minimizing emails, automating internal headhunting through time-bound and decision-based notifications and processes, and cutting application review time by 90%. With a focus on providing comprehensive demand analysis for UNDP's services intersected with the current talent map to ascertain skill gaps, SWP efforts through the platform will allow UNDP to identify personnel overages, predict future skill shortages, analyze workforce trends, and produce actionable forecasts.

- Department/Division: Crisis Bureau
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): 8. Decent Work and Economic Growth, 9. Industry, Innovation and Infrastructure, 17. Partnerships for the Goals, 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): Eva.AI
- Relevant Links and Multimedia: eva.ai
- Contact information: saumik.de@undp.org

Project 28: Fair Digital Finance SupTech

- Project Description: In partnership with UNDP Morocco's Accelerator Lab and Morocco's Central Bank, ICPSD SDG AI Lab developed a FinTech Supervisory Technology (SupTech) tool that analyzes public sentiments related to financial services. Using Natural Language Processing (NLP) and Machine Learning (ML), the tool processes social media content (Twitter, Facebook, Instagram) in Arabic and French to understand the needs of vulnerable groups. The solution provides insights into financial stability, inclusion, and market conduct. A web application generates visual dashboards and PDF-ready reports, enabling real-time monitoring of public concerns.
- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2023
- Data Source: Public Data (Social media platforms - Twitter, Facebook, Instagram)
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 8. Decent Work and Economic Growth, 9. Industry, Innovation, & Infrastructure, 10. Reduced Inequalities, 16. Peace, Justice & Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): UNDP Morocco Accelerator Lab, Morocco Central Bank
- Links and Multimedia: <https://www.undp.org/fr/morocco/blog/ais-next-frontier-making-finance-more-sdgs-aligned>
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 29: Foresight AI - GenAI for speculative futures

- **Project Description:** As an innovation team, we're always looking for ways to use new technologies in our work. Whether that's enabling digital payments, making urban planning more inclusive, or tackling complex challenges using portfolios, we're curious about how tech tools can help. Recently, we've been exploring AI-generated videos as a way to provide a more immersive experience for our colleagues and partners, including in speculative futures workshops and AI trainings. In this post, we'll share our journey with AI video, from our first attempts to our latest work. We'll show you how we're using video in our innovation work, and what we've learned along the way. It's important to note that the scenarios featured in this blog aren't arbitrary creations, but rather the result of a systematic foresight process. This process begins with a comprehensive driver analysis, where key factors influencing future developments are identified and examined. Building on this, we craft distinctly different speculative scenarios that reflect these drivers of change and potential future challenges. The output from this foresight process then serves as the basis for our AI video creations.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data
- **Related Sustainable Development Goals (SDGs):** Industry, Innovation, & Infrastructure, 17. Partnerships for the Goals
- **Partnership(s)/Collaborator(s):** -
- **Relevant Links and Multimedia:** <https://innovation.eurasia.undp.org/navigating-the-ai-video-frontier/>

Project 30: Frontier Technology Radar for Disaster Risk Reduction (FTR4DRR)

- **Project Description:** Frontier Technology Radar for Disaster Risk Reduction (FTR4DRR) is an online tool for the monitoring and tracking of existing and emerging digital solutions for anticipatory risk, risk reduction, and crisis recovery. Developed through a partnership between UNDP's Disaster Risk Reduction and Recovery for Building Resilience Team (DRT), ICPSD SDG AI Lab, and Connecting Business Initiative (CBI), the FTR4DRR aims to effectively support UNDP and other development stakeholders in navigating fast-growing digital solutions for disaster risk reduction and management. It enables an improved understanding of the technological landscape among development stakeholders and encourages the adoption of proven solutions while furthering UNDP as a thought leader on the use of innovative technologies in disaster contexts. Since the launch of FTR4DRR in October 2022, SDG AI Lab has continued developing the tool. In addition, the partners have hosted three outreach webinars that introduced how frontier technologies are used in Disaster Risk Reduction (DRR).
- **Department/Division:** BPPS /ICPSD/SDG AI Lab
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2021
- **Project End Year:** -
- **Data Source:** Internal Data, Public Data
- **Related Sustainable Development Goals (SDGs):** 9. Industry, Innovation, & Infrastructure, 11. Sustainable Cities & Communities, 13. Climate Action, 17. Partnerships for the Goals
- **Partnership(s)/Collaborator(s):** UNDP Disaster Risk Reduction and Recovery for Building Resilience Team (DRT) and Connecting Business Initiative (CBI)
- **Links and Multimedia:** <https://drrtechradar.org/#/>

- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 31: Future Signals Platform AI Extension

- Project Description: The Strategy & Futures team have created the Signals & Trends System, which takes in Signals (at the moment, manually inputted article summarisations from human users) and processes them into trends across a variety of natural-language topics. With this AI extension we implemented a feature that ingests the article, and outputs recommendations in the Signal Scanning form to fill out (seen here: <https://signals.data.undp.org/add-new-signal>).
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): N/A
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://signals.data.undp.org>.
- Contact information: terence.lennon@undp.org

Project 32: Gender Seal (LOLA)

- Project Description: In partnership with UNDP Morocco's Accelerator Lab and Morocco's Central Bank, ICPSD SDG Our AI, called LOLA, reads the documents submitted for the Gender Seal, assesses whether they meet gender benchmarks, and if not, provides questions for improvement. A report will automatically be generated in the next step. LLMs for automated scoring and report generation Methodology: LLMs provided with benchmark criteria and report layout and formulations Algorithms: GPT-4.1 Frameworks: next.js, Azure OpenAI
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Completed
- Project Start Year: 2024
- Data Source: Internal Data, Public Data Sets
- Related Sustainable Development Goals (SDGs): 5. Gender Equality
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: N/A
- Contact information: Ana Ugarte (ana.landa@undp.org), Raphael Schönball (raphael.schoenball@undp.org)

Project 33: GeoAI for Air Pollution India

- Project Description: The GeoAI platform demonstrated how environmental non-compliance can be detected from space using artificial intelligence. It significantly reduces the humongous task and investments required to regulate every industrial unit in India.
- Department/Division: Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Tool or Solution
- Project Status: Completed
- Project Start Year: 2024
- Data Source: N/A

- Related Sustainable Development Goals (SDGs): 2. Good Health & Well-being, Climate Action
- Partnership(s)/Collaborator(s): University of Nottingham, government agencies and civil society in Bihar, Haryana, Punjab and Rajasthan
- Relevant Links and Multimedia: <https://www.undp.org/india/blog/how-geoai-platform-helping-target-brick-kiln-hotspots-air-pollution>
- Contact information: Swetha Kolluri, Rozita Singh, and Dr. Krishnan S Raghavan

Project 34: Geospatial AI (GeoAI) for Stabilization - Haiti

- Project Description: Faster insights on costing and prioritizations can be attained when geospatial technology is combined with artificial intelligence (GeoAI), to analyze large areas rapidly. This approach saves resources while still providing critical insights. UNDP developed a deep learning model to map such damaged structures and obstacles from satellite images. The model is based on the SAMLoRA architecture, originally deployed by Esri within the ArcGIS Pro software, it achieves an accuracy of 85% in built-up areas. UNDP has utilized this model to detect damaged structures and rubble locations in Port-au-Prince, Haiti. While the model successfully identified most of the potential damage locations, it also produced a significant number of false positives, highlighting the need of fine-tuning and more learning for the model to better adapt to the specific context of Haiti. UNDP also applied a GeoAI model to detect cars. This is valuable for identifying abandoned vehicles and areas of instability and mapping their locations. The model is based on the Mask R-CNN architecture, implemented using the ArcGIS API for Python, and was originally trained on various locations in the United States. The interactive map below displays the outputs of the GeoAI model. The model is based on the Mask R-CNN architecture, implemented using the ArcGIS API for Python, and was originally trained on various locations in the United States. Deployment: ArcGIS Enterprise Server (geosmart.undp.org)
- Department/Division: BMS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year:
- Data Source: Partner / Purchased Data, Public Datasets, Drone images by partner organisation
- Related Sustainable Development Goals (SDGs): 11. Sustainable Cities and Communities, 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia: <https://geosmart.undp.org/arcgis/apps/storymaps/stories/a461d8c620ae40b1b8044412b3f1a75e>
- Contact information: Tala Hussein tala.hussein@undp.org; Mohammed Alhessi mohammed.alhessi@undp.org

Project 35: Human Library

- Project Description: Human Library platform seeks a new way to share knowledge and reinvent how information is consumed. It prioritizes a human-centered approach, leveraging artificial intelligence to streamline content creation and promote engagement with selected, bite-sized knowledge pieces. This user-friendly design presents tweet-sized summaries as entry points to a wealth of information, allowing users to create, share, and consume content effortlessly. The platform incorporates assistive technology and AI-generated tools, simplifying the dissemination and discovery of knowledge within the organization. Its focus on bite-sized content and highlighted key information promotes broader access to knowledge and a deeper understanding of complex topics, fostering a culture of learning and collaboration.

Methodology: Natural Language Processing (NLP)
 Deployment: Cloud-based services for scalability and accessibility, allowing users to interact with the AI solution via a web application or through APIs integrated into existing systems.

- Department/Division: Regional Bureau for Latin America and the Caribbean
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): /
- Partnership(s)/Collaborator(s): /
- Relevant Links and Multimedia: <https://bibliotecahumana.co.undp.org/>
- Contact information: Juan David Martin - juan.martin@undp.org, Carlos Velandia - carlos.velandia@undp.org, Jaime Urrego - jaime.urrego@undp.org

Project 36: Illegal Dumpsite Detection Guatemala

- Project Description: In collaboration with UNDP Guatemala Accelerator Lab, ICPSD SDG AI Lab developed an AI-powered monitoring solution to detect illegal solid waste dumping in sensitive areas such as Lake Atitlán. Leveraging AI, machine learning, computer vision, and satellite data from platforms like Sentinel Hub and Google Earth, the project identified over 1,200 potential dumpsites. This model-based approach informs local policy and improves targeted environmental actions. Capacity-building sessions are planned to promote local ownership and sustainability.
- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Data Source: Satellite data
- Related Sustainable Development Goals (SDGs): 6. Clean Water & Sanitation, 9. Industry, Innovation, & Infrastructure, 11. Sustainable Cities & Communities, 13. Climate Action, 14 . Life Below Water, 15. Life on land, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): UNDP Guatemala Accelerator Lab, Ministry of Environment and Natural Resources (MARN), Polytechnic University of Milan
- Links and Multimedia: N/A
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 37: INFORM-Warning

- Project Description: INFORM is a multi-stakeholder forum for developing shared, quantitative analysis relevant to humanitarian crises and disasters. INFORM is developing a suite of quantitative, analytical products to support decision-making at different stages of the crisis management cycle. INFORM-Warning seeks to make a contribution to the better use of data to anticipate, prevent, and respond to climate and complex risks in fragile and crisis-affected settings. The objective of INFORM-Warning is to present reliable, quantified, multi- hazard information that warns about risk trends, forecasts, scenarios and events that could lead to crisis impacts in the next 12 months and can be easily used to support decisions on preparedness and anticipatory action. The INFORM Warning system will be unique as an open-source aggregator of existing early warning data sources that simplifies and interprets quantitative data to understand early warning trends.

- Department/Division: Crisis Bureau
- Project Type/Output: Interactive website, models, scientific paper
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Data Source: Multiple open-source datasets
- Related Sustainable Development Goals (SDGs): 13. Climate Action, 16. Peace, Justice & Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): OCHA, JRC, WFP, UNICEF, UNHCR, FAO, IOM, WHO, IFRC, ACAPS, EU, OECD, FCDO
- Links and Multimedia: TBD
- Contact information: Sun-joo Lee (sun-joo.lee@undp.org)

Project 38: iVerify

- Project Description: Building on UNDP's long standing support for democratic governance, iVerify is part of the next generation of tools to respond to the demand expressed by national counterparts across the globe to better manage misinformation, disinformation and hate speech. The tool allows the general public to flag content for verification. When such content is flagged, it gets sent to Meedan Check, an open collaborative media annotation platform that uses a 'humans in the loop' approach which centralizes human review and verification while integrating automated systems to help prioritize content. The general public as well as trusted organizations can use the platform to send potentially toxic content and/or misinformation - using email, an online form, Facebook Messenger, WhatsApp and Telegram - to the iVerify host partner organization(s) who will verify the content as true, false or somewhere in between. AI increases efficiency by matching flagged content to similar posts, and once drafted by a team of well-trained professional fact-checkers, reports are published automatically to a Wordpress website for access and amplification - with a simple traffic light system that enables users to see at a glance whether a claim is true, half true, unproven, misleading, false, toxic or later retracted. An analytics dashboard further supports quick analysis, agile monitoring and evaluation. iVerify is built like a comprehensive support package around the provision of digital tools as well as the expert technical support to activate the digital innovations. The project has been deployed in Zambia at the occasion of the August 2021 general elections. 9 implementations in different countries across the globe followed suit, including a pilot in DRC which enhanced the user experience while integrating radio listening tools. The team is actively working at evaluating the impacts of that pilot phase to assess whether other countries may benefit from these enhancements as well.
 - Department/Division: EC-UNDP Joint Task Force on Electoral Assistance, BPPS and EXO
 - Project Type/Output: AI Tool or Solution
 - Project Status: Ongoing
 - Project Start Year: 2021
 - Data Source: Social Media Data
 - Related Sustainable Development Goals (SDGs): 4. Quality Education; 5. Gender Equality; 16. Peace, Justice, and Strong Institutions; 17. Partnerships for the Goals
 - Partnership(s)/Collaborator(s): Government: European Union, UK aid, Irish aid, Germany, Sweden , Private Sector: Meedan
 - Relevant Links and Multimedia: <https://digitalpublicgoods.net/about/>
 - Contact information: Electoral Task Force (JTF) be.jtf.team@undp.org

Project 39: Lucy AI Advanced Agent Platform (Pilot for Viet Nam CO)

- **Project Description:** SDG Lucy AI is an enterprise-grade agent platform—equivalent to ChatGPT-4o—developed by our Copenhagen Global Connectivity Support Team and now offered to UNDP Country Offices at no extra cost via our corporate Azure + OpenAI agreement. In this pilot for Viet Nam CO, Lucy AI will integrate seamlessly with our existing infrastructure (fully UNDP-policy compliant) to supercharge operational efficiency and knowledge management across VN projects. Key components include:
 - Lucy Ambassador: an interactive AI avatar hosted on Azure for real-time guidance (containerized App Service + Azure OpenAI API)
 - Lucy Widget: an embeddable, text-chatbot for website and intranet support (client-side JS widget calling secured Azure Functions)
 - Lucy Automation: event-driven API hooks into our dashboards
 - Lucy MS Teams Bot: AI-driven chat assistance (coming soon)
- **Methodology:** Natural Language Processing (NLP) with Retrieval-Augmented Generation (RAG) to ground answers in our Viet Nam CO documents. **Algorithms:** Transformer-based large language model (GPT-4o equivalent) for core conversational intelligence. **Frameworks & Services:** Azure OpenAI Service (hosts the GPT-4o-equivalent model & embedding endpoints). **Deployment:** Cloud-based on Azure: all components run as managed services
- **Department/Division:** Regional Bureau for Asia and the Pacific
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data
- **Related Sustainable Development Goals (SDGs):**
- **Partnership(s)/Collaborator(s):** UNDP Copenhagen Global Connectivity Support Team
- **Relevant Links and Multimedia:** <https://lucy-ai.sfx.undp.org/>
- **Contact information:** nguyen.tuan.luong@undp.org; ta.van.khieu@undp.org; hla.win.kyaing@undp.org

Project 40: Machine Learning for Solar Panel Detection

- **Project Description:** This tool developed by Datatonic in collaboration with UNDP leverages machine learning and satellite imagery to detect solar panels, supporting renewable energy initiatives. It enhances mapping accuracy, aiding policymakers in expanding solar infrastructure. It uses deep learning models (CNNs) trained on labeled datasets to recognize solar panels based on their spectral, spatial, and textural features.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Complete
- **Project Start Year:** 2022
- **Data Source:** Internal Data
- **Related Sustainable Development Goals (SDGs):** 7. Affordable and Clean Energy
- **Partnership(s)/Collaborator(s):** Datatonic
- **Relevant Links and Multimedia:** <https://datatonic.com/insights/undp-solar-cell-energy/>
- **Contact information:** Freshia Wairimu (freshia.wairimu@undp.org), Thais Bekolo (thais.bekolo@undp.org), Valeriya Zaytseva (valeriya.zaytesva@undp.org)

Project 41: Mapping UNDP projects against SDG concepts and indicators

- Project Description: We use the UN LinkedSDGs API to analyze UNDP projects and map them against SDG concepts and indicators. The API employs natural language processing (NLP) techniques to identify key concepts based on UNBIS and EuroVoc thesauruses and their association with specific SDGs. For each project, we extract the top 5 key concepts and the top 3 SDG goals most closely related to these concepts. Then we integrate the extracted concepts and related SDG goals into UNDP's project portfolio dashboard, which allows for easy categorization and filtering of projects based on their alignment with specific SDGs and concepts.
- Department/Division: EXO
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: N/A
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership(s)/Collaborator(s): N/A
- Links and Multimedia: Internal only
- Contact information: Xiaodong Cai (xiaodong.cai@undp.org), Huiyan Du (huiyan.du@undp.org)

Project 42: Meeto | AI-driven Meeting Support System

- Project Description: Meetings are essential to our work, but language barriers and documentation challenges can limit their effectiveness. Meeto empowers UNDP teams to communicate effectively, capture knowledge efficiently, and collaborate seamlessly through:
- Breaking Language Barriers - Real-time transcription and translation across 46 languages ensures everyone can participate fully, regardless of their primary language.
- Capturing Specialized Knowledge - AI speech recognition model trained on UNDP terminology accurately records technical discussions, preserving important context and organizational knowledge.
- Streamlining Documentation - Instant, formatted meeting minutes eliminate hours of post-meeting work while ensuring comprehensive information capture. Our team at the UNDP Seoul Policy Centre has successfully completed the proof-of-concept, demonstrating how Meeto can transform the meeting experience. The system combines React frontend with Flask backend APIs, leveraging Azure Speech Services and Azure OpenAI for intelligent processing. We're now exploring pathways to organization-wide implementation.
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): N/A
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://youtu.be/nNCjY7MlhHM?si=6A-SmiQswoFEZ9eX>
- Contact information: chris.ziegler@undp.org, sejoon.lim@undp.org, lia.an@undp.org

Project 43: Mini portable X-ray Machines Equipped with AI technology

- **Project Description:** In partnership with UNDP Morocco's Accelerator Lab and Morocco's Central Bank, ICPSD SDG Reaching vulnerable population in remote outer islands and many islets is challenging in the PICs. Currently, the presumptive TB patients are referred to main island for X-ray. During this referral a good number of cases do not seek diagnosis and the program lose many presumptive cases. The available X-ray is bulky and carrying it to the outer islands in small boats is a huge challenge. Hence, a portable X-ray machine is required to help the program in diagnosing the TB cases on the spot and immediate initiation of treatment for active TB case. One such innovation is the mini portable x-ray machine, equipped with advanced artificial intelligence (AI)-powered software. Under the C19RM grant, the Federated States of Micronesia, Kiribati, Palau, Republic of Marshall Islands, Samoa, Tonga, Tuvalu and Vanuatu have recently received Portable X-Ray Instrument equipped with CAD software (AI). These compact devices can fit in a suitcase and be carried by a single technician to the most remote communities outside of the reach of health care services and produce rapid, accurate results, without the need for on-site radiologists. This initiative will help to reach our ultimate objective of ending TB in the Pacific and beyond by 2030. **Recognition System Methodology:** Computer Vision Algorithms: Convolutional Neural Networks (CNNs).
- **Department/Division:** BPPS, Regional Bureau for Asia and the Pacific
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2023
- **Data Source:** Partner / Purchased Data
- **Related Sustainable Development Goals (SDGs):** 3. Good Health and Well-being
- **Partnership(s)/Collaborator(s):** World-Bank Group at UNDP Yemen
- **Relevant Links and Multimedia:** <https://www.undp.org/pacific/stories/new-health-technologies-bring-hope-fight-against-tb-across-pacific>
- **Contact information:** Praneel Maharaj (praneel.maharaj@undp.org)/Ketki Bhatia (ketki.bhatia@undp.org)

Project 44: Monitoring coffee coverage using AI in Costa Rica

- **Project Description:** The tool leverages AI to monitor deforestation-free coffee production in Costa Rica and respond to the New European Union Deforestation Regulation that requires products imported in Europe to be deforestation-free. It classifies land by analyzing satellite and topographic models data and detects cover changes over time. The integration of a deep learning algorithm enables superior performance in pattern recognition and classification tasks.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Partner Use, Partner Deployment
- **Related Sustainable Development Goals (SDGs):** 12. Responsible Consumption and Production, 13. Climate Action
- **Partnership(s)/Collaborator(s):** UNDP Costa Rica CO, National University, Coffee institutions cooperation (ICAFE, Coopetarrazú)
- **Relevant Links and Multimedia:**
- **Contact information:** Marco Martinez Martinez, Guillermo Alvarado

Project 45: Monitoring, Analysis, and Early Warning System for the Constructive Management of Social Conflicts

- **Project Description:** In partnership with UNDP Morocco's Accelerator Lab and Morocco's Central Bank, ICPSD SDG The sociopolitical landscape in Bolivia is marked by deep territorial, ideological, and ethno-cultural divisions, accompanied by rising poverty, inequality, and various forms of vulnerability. This is further compounded by growing political and social polarization, which has limited spaces for dialogue. In response, the United Nations Development Programme (UNDP) in Bolivia proposes a comprehensive approach that includes the analysis, management, transformation, and monitoring of conflicts. As part of this effort, UNDP has developed an artificial intelligence-based tool called the "Monitoring, Analysis, and Early Warning System for the Constructive Management of Social Conflicts." (SIMAT) This tool aims to strengthen the institutional capacities of public institutions and social actors within the Plurinational State of Bolivia for conflict prevention and management, offering conflict-sensitive recommendations based on the Do No Harm methodology to support the construction of positive peace. The goal is to enhance institutional trust through governance mechanisms that are more responsive to social demands and oriented toward fostering a culture of peace. The system uses neural networks and predictive models developed by UNDP Bolivia and incorporates Large Language Models (LLMs) to support contextual and narrative analysis. It is currently in use in three national organizations, both governmental and non-governmental, with strong potential for national scaling. The initiative has also been transferred to the Vice Ministry of Interior and Police in Honduras and the Ombudsman's Office in Ecuador. **Methodology:** Neural networks, LLM Algorithms: NN Predictive, NN patterns, Transformer-based models (Deepseek R1 API). **Frameworks:** PHP. **Deployment:** Web Server Application oriented
- **Department/Division:** Regional Bureau for Latin America and the Caribbean
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Complete
- **Project Start Year:** 2022
- **Data Source:** Public Datasets, Internal Data
- **Related Sustainable Development Goals (SDGs):** 16. Peace, Justice and Strong Institutions
- **Partnership(s)/Collaborator(s):** N/A
- **Relevant Links and Multimedia:** https://www.youtube.com/watch?v=RFTU3uYe-fc&list=P_LSBFzKFXkYePoRmx2O6FZEaOMjRyl_bi&index=9
- **Contact information:** Fernando Aramayo Carrasco, fernando.aramayo@undp.org; Francisco Peñaranda Fuentealba, francisco.penaranda@undp.org

Project 46: NBSAP Target Similarity Assessment

- **Project Description:** The urgency to mitigate humanity's impact on global biodiversity necessitates innovative strategies. Artificial Intelligence (AI) holds transformative potential for navigating the complex policy landscapes of biodiversity conservation and accelerating action. When applied through a human-centered approach that minimizes risk, AI can democratize access to cutting-edge analytics, empowering a broader range of stakeholders. UNDP has now supported almost 60 countries to use AI to uncover patterns in the alignment of national policies with global biodiversity aims. Developed on an on-demand basis through the Early Action Support (EAS) Project, funded by the Global Environment Facility, NBSAP Target Similarity Assessments offer customized insights on synergies between global and national biodiversity targets and provide recommendations for enhanced alignment to bring about a transformation in our societies' relationship with biodiversity by 2030. Developed with governments to address their unique needs, these assessments can foster dynamic, inclusive, and effective national stakeholder engagement to fill gaps, raise political will, and improve sectoral collaboration, resulting in accelerated progress towards global biodiversity commitments. The GEF-8 Umbrella Programme

to Support NBSAP Update and the 7th National Reports in now scaling up this GPT-based methodology to also provide insights on alignment between nature and climate targets, through a partnership between the Nature and Climate Hubs and with the UNDP contribution to the UN System's coordinated support on NDC 3.0 Funding Window.

- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2027
- Data Source: Public Data (National biodiversity targets are found via the CBD website <https://www.cbd.int/nbsap/targets/>)
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 5. Gender Equality, 6. Clean Water & Sanitation, 7. Affordable & Clean Energy, 8. Decent Work and Economic Growth, 10. Reduced Inequalities, 11. Sustainable Cities & Communities, 12. Responsible Consumption & Production, 13. Climate Action, 14. Life Below Water, 15. Life on land
- Partnership(s)/Collaborator(s): Nature Hub, GEF-7 Early Action Support Project and GEF-8 Umbrella Programme to Support NBSAP Update and the 7th National Reports.
- Links and Multimedia: <https://www.undp.org/publications/leveraging-artificial-intelligence-enhance-early-action-towards-kunming-montreal-global-biodiversity-framework>https://www.youtube.com/watch?v=6RAedsbbMgA&t=1s&ab_channel=NBSAPForum
- Contact information: Lea Phillips (lea.phillips@undp.org), Christina Supples (christina.supples@undp.org), Nicole DeSantis (nicole.desantis@undp.org)

Project 47: NDC Analytics App

- Project Description: Nationally determined contributions (NDCs) are at the heart of the Paris Agreement and the achievement of its long-term goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The NDC Analytics App is an AI-powered application that allows users to search through 120 Nationally Determined Contributions (NDCs) to find information of interest. The application supports search queries in English, French and Spanish.
- Department/Division: BPPS / SDG Integration
- Project Type/Output: AI Tool or Solution
- Project Status: Completed
- Project Start Year: 2023
- Data Source: Documents from NDC Registry
- Technology/Platform: Python
- Related Sustainable Development Goals (SDGs): 7. Affordable & Clean Energy, 11. Sustainable Cities & Communities, 13. Climate Action, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Governments
- Links and Multimedia: <https://ndc-analytics-app.azurewebsites.net>
- Contact information: Babatunde Abidoye (babatunde.abidoye@undp.org) or Mykola Skrynnyk (mykola.skrynnyk@undp.org)

Project 48: OSDG

- Project Description: OSDG is a joint initiative by the UNDP ICPSD SDG AI Lab, PPMI, and a global network of researchers led by Dr. Nuria Bautista Puig, focused on SDG-related text classification and analysis. The initiative comprises three main components: a classification tool, a community-validated dataset, and an API (Application Programming Interface). The open-source tool classifies documents based on their relevance to the Sustainable

Development Goals (SDGs), enabling researchers, businesses, and governments to align their work with the 2030 Agenda. The OSDG API allows for bulk SDG classification and enables seamless integration into websites, reports, and digital platforms without manual processing. The API has been adopted by platforms including the Swedish Science Portal, SciStarter, and SDG Careers. It is freely available for non-commercial use. Over 2,700 online volunteers from 130 countries contributed to building and validating the OSDG Community Dataset. With continuous updates, the dataset has become a widely used resource for academic research and innovation challenges, cited in over 20 peer-reviewed publications.

- Department/Division: BPPS/ICPSD/SDG AI Lab
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2021
- Data Source: Crowdsourced Datasets
- Related Sustainable Development Goals (SDGs): 4. Quality Education, 9. Industry, Innovation, & Infrastructure, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): European Research Center - PPMI
- Links and Multimedia: <https://osdg.ai/> <https://www.undp.org/news/osdg-initiative-recognized-top-100-ai-projects-advancing-sustainable-development-goals>
- Contact information: Gokhan Dikmener (gokhan.dikmener@undp.org)

Project 49: Pilot Damage Assessment and Early Recovery using GeoAI - Gaza

- Project Description: Utilizing GeoAI models to detect damaged buildings and infrastructure and share the results with UNDP PAPP for response and planning actions. Geospatial artificial intelligence (GeoAI) is the application of artificial intelligence (AI) fused with geospatial data, science, and technology to accelerate real-world understanding of business opportunities, environmental impacts, and operational risks. Organizations are modernizing operations to run at scale through automated data generation and approachable spatial tools and algorithms. Extract rich geospatial data with deep learning. Save time by automating the extraction, classification, and detection of information from data such as imagery, video, point clouds, and text. Perform predictive analysis using machine learning. Build more accurate models. Detect clusters, calculate change, find patterns, and forecast outcomes with spatial algorithms backed by experts. Deployment: ArcGIS Enterprise Server (geosmart.undp.org)
- Department/Division: BMS
- Project Type/Output: AI Tool and Solution
- Project Status: Complete
- Project Start Year: 2024
- Data Source: High Resolution Satellite Imagery
- Related Sustainable Development Goals (SDGs): 16. Peace, Justice, and Strong Institutions, 11. Sustainable Cities and Communities, 3. Good Health and Well-being, 4. Quality Education, 2. Zero Hunger
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://geosmart.undp.org/arcgis/apps/dashboards/70c7e28b02ff487c928a0c1be24d9f3d>
- Contact information: Tala Hussein tala.hussein@undp.org; Mohammed Alhessi mohammed.alhessi@undp.org

Project 50: POPP ChatBot

- Project Description: Leveraging ChatGPT 4.0 to create a virtual agent to answer questions about UNDP policies and procedures.
- Department/Division: ITM and BPC/BMS
- Project Type/Output: ChatBot embedded in Intranet
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2024
- Data Source: POPP web sites
- Related Sustainable Development Goals (SDGs): 9. Industry, Innovation, & Infrastructure
- Partnership(s)/Collaborator(s): Microsoft
- Links and Multimedia: popp.undp.org
- Contact information: Diwen Xu (diwen.xu@undp.org)

Project 51: Prebunking Misinformation: A Generative AI Approach to Information Integrity in Bangladesh

- Project Description: Misinformation surrounding political and social landscape in Bangladesh—particularly via social media platforms like Facebook, YouTube, WhatsApp, and Messenger—has become a serious threat to democratic integrity. Rumors related to social incidents, digital tampering, or targeted disinformation often reach communities through private channels, disproportionately affecting older adults and rural populations. Once spread, such content is difficult to contain or disprove.
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Public Datasets / Purchased Data, Web Scraping, Third-Party APIs
- Related Sustainable Development Goals (SDGs): 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): University of Toronto
- Relevant Links and Multimedia: N/A
- Contact information: Iffat Anjum (iffat.anjum@undp.org)

Project 52: PRISM AI Companion

- Project Description: The goal of PRISM AI Companion is to ease the interaction between the staff and our MIS. This system allows the user to ask it questions about our projects progress and the system pulls the data from our database and provide analytics for the user that include summary, observations and multiple charts for better data visualization and understanding. Methodology: Natural Language Processing (NLP)
Algorithms: Transformer-based models (ChatGPT)
Frameworks: Azure OpenAI
- Department/Division: Regional Bureau for Arab States
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs):
- Partnership(s)/Collaborator(s): World-Bank Group at UNDP Yemen

- Relevant Links and Multimedia: N/A
- Contact information: Ahmed Alhadi (ahmed.alhadi@undp.org), Sultan Alhamdani (sultan.alhamdani@undp.org)

Project 53: RAPIDA UNDP's Early Recovery Assessment Tool

- Project Description: RAPIDA is a modular digital assessment platform that leverages satellite imagery and GIS technology to rapidly analyze crisis-affected areas, identify exposed and vulnerable populations, and support coordinated interventions within 72 hours of a crisis. It integrates ground-level insights from Key Informant Interviews (KIs) with experts and community leaders to pinpoint early recovery priorities and guide the strategic deployment of Early Recovery Packages. By providing timely, actionable information, RAPIDA enables UNDP, governments, and humanitarian partners to understand the development impacts of crises and prioritize early recovery within humanitarian response efforts. It serves as a bridge between immediate relief and long-term development, laying the foundation for a more resilient and inclusive recovery. RAPIDA includes two key components:
 1. GeoAI for Damage Detection and Classification: Uses satellite imagery and other remote sensing data to automatically detect and categorize physical damage following a crisis. This allows for rapid identification of damage patterns and critical hotspots, improving the speed and efficiency of field operations.
 2. AI/ML-Based Socioeconomic Forecasting Models: Leverages historical data to estimate potential socioeconomic impacts of emerging crises, including infrastructure disruption, displacement, and economic decline. It uses satellite-based light intensity as a proxy to model real-time changes in economic activity and population movement.
- Department/Division: Crisis Bureau
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: satellite imagery, remote sensing data, night-time light intensity data, historical crisis impact and socioeconomic data
- Related Sustainable Development Goals (SDGs): SDG 1: No Poverty, SDG 3: Good Health and Well-being, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals
- Partnership(s)/Collaborator(s): UN Satellite Centre
- Relevant Links and Multimedia: <https://mcusercontent.com/4d6b0e5109e46fa1d86de773e/files/4eae0ce-9722-29cd-bc88-82d4f3e45084/RAPIDA.pdf>
- Contact information: Anila Qehaja, anila.qehaja@undp.org, assessments@undp.org

Project 54: RBM Hub Co Pilot

- Project Description: The RBM Hub Co Pilot provides advice on how to carry out RBM and can assist in developing RBM tools such as Theories of Change, Results Indicators and impact narratives. It is mainly based off the RBM Hub.
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs):

- Partnership(s)/Collaborator(s): ITM
- Relevant Links and Multimedia: Internal only
- Contact information: Owen Edwards, owen.edwards@undp.org

Project 55: Renewal Engine

- **Project Description:** In partnership with UNDP Morocco's Accelerator Lab and Morocco's Central Bank, ICPSD SDG UNDP's Renewal Engine: from what to so what The Renewal Engine offers space for strategic, systems-based analysis, synthesis and reflection. It is a mechanism that generates development intelligence and supports better decision-making amidst uncertainty. The Renewal Engine is an advanced capability that integrates analysis and synthesis capabilities of AI into the human-centric processes of understanding complex problems and designing responsive policies and programmes. **Methodology:** Natural Language Processing; Large Language Models; Predictive Analytics & Forecasting; Geospatial Analytics Algorithms: GPT, Deep Learning, Neural Networks, Machine Learning Frameworks: TensorFlow (Python), more to be developed
The Renewal Engine consists of four distinct but interconnected components:
 1. **Analytical Framework:** the underlying logic and conceptual structure for analyzing data and generating insights . A systems lens through which to analyze complex development challenges. The four "walls": Proven, Patterns, Promising, and Possible. A binding logic that guides the interpretation of data through a systems lens, within each wall, and across multiple walls
 2. **Data Ecosystem:** a comprehensive and dynamic information infrastructure that feeds the Renewal Engine's analytical capabilities. An Info Library. A data management system.
 3. **AI Processing Engine:** the computational infrastructure designed to analyze, interpret, and generate insights from the data available in the Data Ecosystem, guided by the Analytical Framework. AI models ecosystem. Exploratory and Relational Analysis.
 4. **User Suite:** how stakeholders engage with and utilize the engine, effectively translating the complex internal processes of the Renewal Engine into an accessible, actionable journey. Steps and protocols to effectively interact with the system. User-facing component of the Renewal Engine. Inputs to and outputs of the engine.
- **Department/Division:** Regional Bureau for Arab States, BPPS, BMS
- **Project Type/Output:** AI Tool or Solution
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data, Public Datasets, Web Scraping, Third-Party APIs, Partner / Purchased Data
- **Related Sustainable Development Goals (SDGs):**
- **Partnership(s)/Collaborator(s):** N/A
- **Relevant Links and Multimedia:** Internal only
- **Contact information:** jennifer.colville@undp.org; yasmine.hamdar@undp.org

Project 56: Revamped the UNOSSC Galaxy and introduction of an AI digital assistant

- **Project Description:** UNOSSC and CDO revamped the South -South Galaxy repository of solutions on SSTRC. As part of the initiative, AI is used to assist end-users to navigate, extract insights and access valuable resources on the platform related to SSTRC, including knowledge products as well as relevant SSTRC solutions and good practices.
- **Department/Division:** United Nations Office for South-South Cooperation (UNOSSC)
- **Project Type/Output:** AI Tool or Solution

- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Data Source: Internal data
- Related Sustainable Development Goals (SDGs): SDG 17 - Partnerships for the Goals
- Partnership(s)/Collaborator(s): Various partnerships with member states, UN agencies, think tanks, academia and private sector.
- Links and Multimedia: <https://unsouthsouth.org/library/south-south-galaxy/>
- Contact information: Dumitru Vasilescu (dumitru.vasilescu@unossc.org)

Project 57: Risk Anticipation Data Hub

- Project Description: The project aims to transform an existing UNDP Crisis Bureau internal data platform (Crisis Risk Dashboard) into a digital public good by providing a one-stop data warehouse combining a large set of public datasets to facilitate integrated multidimensional data analytics. A key feature of this project will be a Generative AI LLM front-end that will enable analysts to interact with the data warehouse using natural language queries. This innovative feature will empower analysts to extract insights without relying on traditional business intelligence tools, enhancing rapid risk analysis and reducing barriers to entry and costs.
- Department/Division: Crisis Bureau
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 9. Industry, Innovation, & Infrastructure, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): CRAF'd funded project
- Links and Multimedia: N/A
- Contact information: Shouryadipta Sarkar (shouryadipta.sarkar@undp.org), Minako Manome (minako.manome@undp.org)

Project 58: R&D Opportunity Mapper

- Project Description: This solution is a frugal RAG application that pulls signals from what the UNDP Accelerator Labs see, test, and learn about given development priorities (topic), and scores them according to different dimensions of interest. Both the topic and dimensions are configurable. The solution is frugal in that it is designed to run locally using entirely open-source code, frameworks, and models. It builds on a set of NLP API building blocks developed inhouse by the Accelerator Labs Global Team and available at: <https://apis.sdg-innovation-commons.org/>. As such, the approach is easily replicable and scalable to different use cases. The Accelerator Labs Network has developed a bottom-up approach to research and development (R&D) for the SDGs. At the country level, Labs document what they see, test, and learn about local development efforts. This is centralized in an open platform called the SDG Commons, which is accessible at: <https://sdg-innovation-commons.org/>. At the global level, patterns and trends are identified across countries to inform new global R&D agendas. This solution supports these activities. In the present instance, the focus is on circular economy and solid waste management. The solution provides an overview of the work done across the Accelerator Labs Network, and shows how Lab observations, interventions, and experiments cover legal, political, cultural, educational, economic, technological, and institutional dimensions. This allows to

see where the work of the Network (and/or the broader organization) stands, and where there might be opportunities for future R&D.

- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Internal Data, Web Scraping
- Related Sustainable Development Goals (SDGs): 7. Affordable and Clean Energy
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia: <https://nlpapi.sdg-innovation-commons.org/collection>
- Contact information: Jeremy Boy (jeremy.boy@undp.org), Adedapo Aderemi (adedapo.aderemi@undp.org)

Project 59: SARA (Sistema de Atención y Resguardo Automatizado de Información)

- Project Description: SARA is an artificial intelligence assistant in the form of a chatbot that seeks to prevent violence against women and girls in Central America and the Dominican Republic by providing information and guidance to women and girls at risk of becoming victims of violence via a web-based chat. This tool can reach more individuals than other traditional resources such as printed manuals or guidebooks and has the added benefit of sharing with the users additional resources and assistance, whilst maintaining confidentiality. SARA is an example of the possibilities of using machine learning, since it is capable of learning and logically interacting with the users. The information provided by SARA is developed by national specialists to ensure that the information and guidance is in line with the context, language and idioms of each country, and sensitive to the users' needs.
- Department/Division: Regional Bureau for Latin America and the Caribbean
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2023
- Data Source: Partner Data -the chatbot works with information provided by the national institution to begin the process of learning possible response options when users ask questions. Based on this information, it continues to interact and respond to different queries)
- Related Sustainable Development Goals (SDGs):
- Partnership(s)/Collaborator(s): This tool was developed within the UNDP Regional Project INFOSEGURA, in partnership with USAID.
- Relevant Links and Multimedia: https://chatbotsara.org/?utm_source=chatgpt.com; <https://mujer.gob.do/> <https://mujer.gob.do/index.php/sobre-nosotros/sara>
- Contact information: Jairo Acuña jairo.acuna@undp.org; Gloria Mazotti gloria.manzotti@undp.org

Project 60: SDG Push Diagnostics (National Priorities)

- Project Description: The National Priorities feature of the SDG Push Diagnostics enables users to upload and analyse policy documents with respect to 17 Goals. Documents such as Voluntary National Reviews (VNRs) and National Development Plans can be used to identify priorities of the government that can be mapped to the SDGs. A neural network algorithm helps to discover which SDGs feature most prominently as a priority. The SDG Push Diagnostics platform already provides results for more than 120 VNRs.
- Department/Division: BPPS / SDG Integration
- Project Type/Output: AI Tool or Solution
- Project Status: Completed

- Project Start Year: 2022
- Project End Year: 2024
- Data Source: Internal Data, Public Data
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership(s)/Collaborator(s): National governments in more than 100 countries.
- Links and Multimedia: <https://sdgdiagnostics.data.undp.org/AFG/current-priorities>
- Contact information: Babatunde Abidoye (babatunde.abidoye@undp.org) or Mykola Skrynnyk (mykola.skrynnyk@undp.org)

Project 61: Sentiment analysis of UNDP-tagged tweets

- Project Description: With help from UN Pulse API, we extract tweets from the X platform (previously known as Twitter) for the past 6 months, where UNDP was tagged. Then three off-the-shelf python sentiment analysis packages are applied on the tweets with an automated/calculated final assessment based on the agreement among the results from the three packages. Initial testing showed accuracy above 85% within 1500+ human-labelled tweets. The results are visualised in an internal Power BI report.
- Department/Division: EXO
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: -
- Data Source: Third-Party API (UN Pulse Twitter)
- Related Sustainable Development Goals (SDGs): All SDGs
- Partnership(s)/Collaborator(s): UN Pulse
- Links and Multimedia: Only internal
- Contact information: Xiaodong Cai (xiaodong.cai@undp.org), Huiyan Du (huiyan.du@undp.org)

Project 62: smartKasbah

- Project Description: smartKasbah is an AI-powered initiative aimed at revitalizing Morocco's historical ksour and kasbahs by supporting sustainable mobility, spatial planning, and community-driven development. The initiative uses off-the-shelf AI tools (e.g., AI assistants, image generators, speech-to-text) to document, map, and engage local knowledge for use in urban mobility planning, heritage valorization, and inclusive tourism. It builds on existing work by the country office's programmes on rural heritage and supports local authorities and communities to test small-scale AI prototypes for decision support and public engagement. Methodology: Natural Language Processing (NLP), Computer Vision, Generative AI Algorithms: Transformer models (e.g., GPT for dialogue and summarization), CNNs for image processing Frameworks: OpenAI API, Whisper (for speech recognition), Hugging Face Transformers, Stable Diffusion Deployment: Cloud-based tools (API integration for AI assistants), Desktop + mobile for offline mapping/data gathering
- Department/Division: Regional Bureau for Arab States
- Project Type/Output: AI Solution or Tool
- Project Status: Ongoing Development
- Project Start Year: 2024
- Data Source: Internal Data, Public Datasets, Third-Party APIs, Partner / Purchased Data

- Related Sustainable Development Goals (SDGs): Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 13. Climate Action, 17. Partnerships for the Goals, 15. Life On Land
- Partnership(s)/Collaborator(s): CO Programmes (Local Development and Governance), Regional and local authorities (e.g., Tiznit), Potential: AccLab network, university researchers, local NGOs
- Relevant Links and Multimedia: <https://www.undp.org/fr/morocco/actualites/la-strategie-integree-de-valorisation-durable-des-ksour-et-kasbah-une-feuille-de-route-pour-le-changement#:~:text=Le%20programme%20de%20valorisation%20durable%20des%20ksour%20et%20kasbah%20r%C3%A9pond>
- Contact information: mahir.chekkoury@undp.org; omar.agodim@undp.org

Project 63: South Sudan Flooding Probabilities and Prediction

- Project Description: The primary objective of this study is to predict the flood extents in South Sudan for the last quarter of 2024, using historical flood extents and other environmental factors, including rainfall. The prediction is carried out in two ways: 1) estimating the probability of flood occurrence based solely on historical flood extents, and 2) predicting flood occurrence for the current season (October to December 2024) using the probability of rainfall and other environmental variables such as Digital Elevation Model (DEM), land cover, soil type, among others. To estimate the probability of flooding, an empirical probability estimation method was employed. Additionally, machine learning algorithms, primarily tree-based models, were utilized to predict flood extents for the current season (October to December 2024).
Methodology: For predicting flood extents for the current season (October to December 2024), machine learning techniques were utilized. ArcGIS Pro and Python were the primary tools used to implement the entire pipeline. ArcGIS Pro features an AutoML tool, which automatically experiments with various tree-based models, including Random Forest, XGBoost, LightGBM, CatBoost, and ensemble models, to identify the one that provides the highest accuracy. Python was primarily used for data exploration, preprocessing, and preparing the datasets for the AutoML tool. It was also integrated into the prediction workflow to produce the final flood prediction map. Deployment: ArcGIS Enterprise Server (geosmart.undp.org)
- Department/Division: Regional Bureau for Africa
- Project Type/Output: AI Tool or Solution
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Public Datasets
- Related Sustainable Development Goals (SDGs):
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: Only internal
- Contact information: Tala Hussein tala.hussein@undp.org; Mohammed Alhessi mohammed.alhessi@undp.org

Project 64: Thematic tagging of UNDP projects

- Project Description: Using supervised machine learning algorithms to tag UNDP projects based on project description text. Modelling based on pre-tagged training data sets with verification and fine-tuning by iterative training and model-adjusting.
- Department/Division: EXO
- Project Type/Output: Excel data sets, STATA script (SVM)
- Project Status: Ongoing

- Project Start Year: 2019 and is on-going with adjustment of models for existing themes and expansion of themes (social protection, SP outputs, SDGs, etc.)
- Project End Year: N/A
- Data Source: Internal Data (Project description data extract from Quantum)
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 5. Gender Equality, 10. Reduced Inequalities, SDG 11 - Sustainable Cities & Communities, 13. Climate Action, 16. Peace, Justice & Strong Institutions
- Partnership(s)/Collaborator(s): N/A
- Links and Multimedia: Internal only
- Contact information: Xiaodong Cai (xiaodong.cai@undp.org), Huiyan Du (huiyan.du@undp.org)

Project 65: Thematic Tagging and Standardized Information Extraction for UNDP's Results-Oriented Annual Reporting (ROAR) Outputs

- Project Description: UNDP's integrated Leveraging advanced Azure OpenAI models, we developed customized prompts aligned with UNDP definitions to classify ROAR narrative outputs according to GPN service offers and to standardize the extraction of successes, challenges, and lessons learned-supporting aggregated results reporting at the corporate level
- Department/Division: EXO
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 13. Climate Action, 16. Peace, Justice, and Strong Institutions, 15. Life On Land, 14. Life Below Water, Internal Solution/Cross-Functional, 12. Responsible Consumption and Production
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: Internal only
- Contact information: Xiaodong Cai (xiaodong.cai@undp.org), Huiyan Du (huiyan.du@undp.org)

Project 66: UNDP Ethics Office Internal Chatbot

- Project Description: To ensure the function is future prepared for a growing level of demand for and interest in ethics advice and guidance, the Ethics Office has been exploring opportunities to enhance efficiencies, including through digitalisation. In this regard, the Ethics Office is developing an AI-powered internal chatbot that will serve as an assistive tool for agents within the Ethics Office. Through this new tool, which relies on advanced AI techniques, such as natural language processing and machine learning, Ethics Officers will receive prompt and tailored draft ethics advice and guidance—pursuant to UNDP's ethical standards and other internal frameworks— which they refine before sending to personnel.
- Department/Division: ETHICS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data

- Related Sustainable Development Goals (SDGs):
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: N/A
- Contact information: Victoria Fassrainer (victoria.fassrainer@undp.org); Yumi Omiya (yumi.omiya@undp.org)

Project 67: UNDP GPT

- Project Description: Bringing ChatGPT inhouse: UNDP GPT allows colleagues to use both GPT and open-source models inhouse with features tailored for UNDP (e.g. understanding UNDP-internal acronyms, analysing datasets and document corpora etc.)
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): N/A
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: Not yet available externally
- Contact information: Gedion Disassa (gedion.disassa@undp.org), Nicola Holden (nicola.holden@undp.org)

Project 68: UN Volunteers Description of Assignment qualitative rating

- Project Description: UN Volunteers Description of Assignment qualitative rating. For each request for a UN Volunteer of assignment, a Description of Assignment (DoA) is produced. As it contains lots of text and description, and is critical to identify suitable talent, we deploy an AI solution to give a qualitative scoring to this DoA.
- Department/Division: ICTS/UNV/BMS
- Project Type/Output: AI Tool or Solution (Feature within the UNV Recruitment tool)
- Project Status: Ongoing
- Project Start Year: 2023
- Data Source: Internal Data (UNV recruitment)
- Related Sustainable Development Goals (SDGs): SDG 5 - Gender Equality, SDG 10 - Reduced Inequalities, SDG 16 - Peace, Justice & Strong Institutions
- Partnership(s)/Collaborator(s): N/A
- Links and Multimedia: N/A
- Contact information : Frederic LeMaistre (frederic.lemastre@unv.org)

Project 69: Virtual Reality-Based Local Government Communication and Service Platform

- Project Description: The scope of this assignment is limited to a virtual presentation that enables access to content and services already available on the existing web portal and integration with AI chat bot. The focus is on creating an interactive and engaging platform that enhances the visibility and accessibility of local services without introducing new integrations or data migrations. Future procurements will address additional functionalities, system integrations, and data migrations. However, this assignment should establish the necessary baseline and preconditions to facilitate seamless upgrades and expansions in subsequent phases.

- Department/Division: Regional Bureau for Europe and the Commonwealth of Independent States
- Project Type/Output: AI Tool or Solution
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Public Datasets, Partner / Purchased Data
- Related Sustainable Development Goals (SDGs): 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): Capital City of Podgorica
- Relevant Links and Multimedia: N/A
- Contact information: Boris Rebic boris.rebic@undp.org, Aleksandra Vavic aleksandra.vavic@undp.org

Project 70: Viva Implementation

- Project Description: As part of UNDP's continued efforts in transforming our digital workplace experience, Microsoft (MS) Viva Suite was enabled across the organisation. The MS Viva Suite, including Viva Connections, Viva Insights, Viva Engage, Viva Topics, Viva Learning and Viva Goals, will ensure all personnel are connected to their colleagues and have personal productivity insights, expert knowledge, strategic priorities and key learning resources available at their fingertips. All those components are backed up by Microsoft AI engines.
- Department/Division: ITM/BMS, OHR/BMS and SDGI/BPPS
- Project Type/Output: SharePoint, Teams, Viva Suite
- Project Status: Ongoing
- Project Start Year: Q3/2022
- Project End Year: Q4/2024
- Data Source: M365 datasets
- Technology/Platform: Microsoft 365
- Related Sustainable Development Goals (SDGs): 9. Industry, Innovation, & Infrastructure, 12. Responsible Consumption & Production, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Microsoft
- Links and Multimedia: <https://undp.sharepoint.com/teams/ITM/SitePages/DWP-MSvivasuite.aspx> (internal)
- Contact information: Diwen Xu (diwen.xu@undp.org), Daniel Tshin (daniel.tshin@undp.org)

Project 71: Water Solutions Catalogue

- Project Description: GPT4o searches all UNDP projects from the transparency portal to find all water-related projects. The results are presented on a platform. The methodology is open to all other thematic areas.
- Department/Division: BPPS
- Project Type/Output: AI Tool or Solution
- Project Status: Development
- Project Start Year: 2024
- Data Source: Public Data Sets
- Related Sustainable Development Goals (SDGs): 6. Clean Water and Sanitation
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://solutions-catalogue.vercel.app/>

- Contact information: Mary Matthews (mary.matthews@undp.org), Sarim Mehmood (sarim.mehmood@undp.org)

Project 72: AI Sprint: Accelerating Organisational Transformation with AI

- **Project Description:** UNDP is prioritizing the use of AI to ensure that the organization can leverage cutting-edge technologies effectively and responsibly. To accelerate AI adoption across the organization and to position UNDP as a leader in AI for sustainable development, UNDP launched an "AI Sprint", a strategic initiative to equip UNDP staff with the tools, knowledge, and governance frameworks needed to harness AI responsibly and effectively. The AI Sprint is structured around three key pillars: 1) UNDP AI fundamentals - building AI awareness, reskilling, and establishing a robust data infrastructure to enable responsible and ethical AI adoption; 2) flagship AI Initiatives - deploying high-impact AI projects addressing key development challenges such as climate action, biodiversity, and crisis recovery, showcasing the transformative potential of AI for sustainable development. 3) Country AI enablement - supporting countries in developing AI strategies, building local AI ecosystems, enhancing public sector AI capacity and scaling other existing AI offers to accelerate digital transformation and sustainable growth. To navigate the transformative impact of AI on UNDP's internal operations and member state support, the UNDP AI Working Group was officially formed in December 2023 with the key role of overseeing responsible AI use, streamlining internal applications, and developing approaches for legal compliance, risk management, and transparency. The Working Group is led by the Secretariat, consisting of the Chief Digital Officer (CDO), the Chief Technology Officer (ITM) and the Deputy Assistant Administrator and Deputy Director (GPN). In 2024, UNDP AI Working Group developed UNDP's vision on AI, a set of principles on AI, and the UNDP AI Ethical Framework, that will guide our internal work with AI tools and approaches.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Capacity Building
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal data
- **Related Sustainable Development Goals (SDGs):** SDG 5 - Gender Equality, SDG 8 - Decent Work and Economic Growth, SDG 10 - Reduced inequalities, SDG 16 - Peace, Justice, and Strong Institutions, SDG 17 - Partnerships for the Goals
- **Partnership(s)/Collaborator(s):** UNDP Country Offices and Regional Bureaus, UNDP Global Policy Network, Government partners
- **Contact information:** Gayan Peiris (gayan.peiris@undp.org), Nina Grinman (nina.grinman@undp.org)

Project 73: AI Capacity for Government Training

- **Project Description:** AI for Government is a three-day training programme designed for public sector leaders and practitioners. It explores how governments can harness artificial intelligence effectively and responsibly - as regulators, ensuring safe and ethical use; as users, adopting AI to improve public services; and as enablers, creating the conditions for innovation and inclusive AI ecosystems. The course combines real-world case studies, hands-on exercises, and peer learning to build practical capacity for AI strategy and implementation in government.
- **Department/Division:** BPPS
- **Project Type/Output:** AI Capacity Building
- **Project Status:** Ongoing Development
- **Project Start Year:** 2025
- **Data Source:** N/A

- Related Sustainable Development Goals (SDGs): 4. Quality Education ,16. Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://www.undp.org/digital/capacitylab>
- Contact information: Dhani Spiller (dhani.spiller@undp.org)

Project 74: ACT28 AI for Climate Hackathon

- Project Description: The ACT28 AI for Climate Hackathon, organized by UNDP in partnership with Samsung Electronics MENA, invited young data scientists, AI engineers, and researchers from the MENA region. The participants developed digital solutions for climate change using cutting-edge technologies, including Artificial Intelligence and Machine Learning, Internet of Things (IoT), Blockchain and mobile technologies. Announced at COP28 in Dubai, the hackathon aimed to engage young entrepreneurs in the climate-tech sector, focusing on Sustainable Development Goals (SDGs) such as Climate Action (SDG 13), Life Below Water (SDG 14), and Life on Land (SDG 15). Participants received guidance from seasoned mentors and attended workshops on AI, climate change, and mobile technologies. The event culminated in a Demo Day, where the top 10 teams presented their solutions to industry experts, investors, and policymakers, with the top three teams honored at the Dubai AI Retreat. This initiative aligned with Samsung's mission to harness advanced technologies for sustainable development and empowered youth to contribute to a low-carbon and resilient future.
- Department/Division: SDG AI Lab, Regional Bureau for Arab States
- Project Type/Output: AI Capacity Building
- Project Status: Completed
- Project Start Year: 2024
- Data Source: Public Data
- Related Sustainable Development Goals (SDGs): 13. Climate Action, 14. Life below Water, 15. Life on Land, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Samsung Electronics MENA
- Relevant Links and Multimedia: <https://www.undp.org/policy-centre/istanbul/press-releases/samsung-and-undp-award-winners-act28-ai-climate-hackathon-uaes-ai-retreat-2024>
- Contact information: Dina Akyzbekova, dina.akyzbekova@undp.org

Project 75: Africa Center of Competence for Digital and Artificial Intelligence Skilling

- Project Description: In partnership with the Ministry of Information, Communications and Digital Economy and Microsoft, UNDP Kenya is co-creating a groundbreaking Africa Center of Competence for Digital and Artificial Intelligence Skilling. This center is designed to empower public servants across Africa with the skills and competencies needed to accelerate digital transformation in government. The Center will act as a dynamic hub, fostering multi-stakeholder collaboration and innovation. By strengthening local digital ecosystems and building partnerships across academia, public service, the private sector, and development partners, the initiative aims to drive digital inclusion—a key step towards achieving the Sustainable Development Goals (SDGs). The objectives of the Center include equipping public servants with advanced digital skills to lead and sustain Africa's digital transformation, providing access to cutting-edge technologies to increase efficiency and inclusivity within government operations, and fostering a culture of experimentation and innovation to empower public servants to embrace and lead digital transformation. The Africa Center of Competence for Digital and Artificial Intelligence Skilling will offer a modular and cohort-based learning experience, with the first cohort drawing participants from Kenya, Uganda, Malawi, Cape Verde, Rwanda, Tanzania, and Nigeria. Through mentorship and individualized support, participants

will gain hands-on experience with technologies like artificial intelligence, data science, cybersecurity, and deep tech. Kenya is an ideal host for the Center due to its leadership in digital innovation, supported by extensive infrastructure investments and a strong legal and policy framework. The country's commitment to the Kenya Vision 2030, Mid-Term Plan IV (2023-2027), and the Bottom-Up Economic Transformation Agenda (2022-2027) aligns perfectly with the goals of the Center, as does Kenya's National Digital Master Plan, which focuses on the key pillars of digital transformation.

- Department/Division: UNDP Kenya
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 4. Quality Education
- Partnership(s)/Collaborator(s): Ministry of Information, Communications and Digital Economy and Microsoft
- Relevant Links and Multimedia: <https://www.undp.org/kenya/africa-center-competence-digital-and-artificial-intelligence-skilling>
- Contact information: Anna Nylander, anna.nylander@undp.org

Project 76: AI Capacity of the UNDP Product Studio Team

- Project Description: UNDP's [Product Studio](#) is an in-house software development and design team that has built over 40 AI and digital solutions for teams across the UN. Studio has strong AI development talent, working with the latest emerging technologies and tools.
- Department/Division: BPPS
- Project Type/Output: AI Capacity Building / AI Tools and Solutions
- Project Status: Ongoing
- Project Start Year: 2023
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Working with IOM, WFP, UNHCR, and UNDP programme teams
- Relevant Links and Multimedia: <https://www.undp.org/digital/productstudio>
- Contact information: nicola.holden@undp.org

Project 77: Digital Camp

- Project Description: Beneficiaries completed a two-month training program in Artificial Intelligence and Data Science. A total of 54 practical AI and Data Science projects were developed and presented. A mapping of private sector needs for qualified personnel was conducted, with the participation of 29 companies. As a result, 20 internship opportunities were facilitated, and a specialized AI curriculum was developed specifically for engineering students.
- Department/Division: Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Web Scraping
- Related Sustainable Development Goals (SDGs): 4. Quality Education
- Partnership(s)/Collaborator(s): UNDP Afghanistan, Digital Solutions for Recovery Project

- Relevant Links and Multimedia: www.digitalcamp.af
- Contact information: Firuz Saidkhadzhaev, firuz.saidkhadzhaev@undp.org

Project 78: Digital Innovation: Women and AI (DIWA)

- Project Description: Digital Innovation Women and AI (DIWA)—to empower women and girls in Asia and the Pacific to access, shape, and lead in the digital economy. DIWA responds to the growing gender gaps in STEM, digital access, and AI leadership, with a sharp focus on future skills, digital safety, inclusive tech ecosystems, and economic empowerment in sectors like care, energy, and agriculture. DIWA is structured around 5 key outputs:
 - Digital Financial Inclusion, support 100,000 women-led MSMEs to access digital finance, e-commerce platforms, and AI-powered tools for business growth.
 - AI and Future Skills for Employment: Train 200,000 women and girls in AI, data science, and digital branding - through partnerships with universities, tech firms, and re-skilling programs.
 - Tech-Enabled Care Innovation: Launch AI-powered care startups and solutions that transform elder and childcare, reduce unpaid work, and create new income streams.
 - Women in AgriTech and Energy: Empower women farmers and clean energy entrepreneurs with digital tools, precision agriculture, and access to markets and investors.
 - Safe and Inclusive Digital Spaces: Deploy AI-powered tools to detect online harassment, support legal reforms, and deliver digital safety training for women.
- Department/Division: BPPS
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): 4. Quality Education, 5. Gender Equality, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth
- Partnership(s)/Collaborator(s): UNDP Country Offices, National Trade Ministries, CSOs, Women Entrepreneur Associations, Tech Companies
- Relevant Links and Multimedia:
- Contact information: sudha.gooty@undp.org

Project 79: Frontier Tech Leaders

- Project Description: To address the digital divide and empower the Least Developed Countries (LDCs) with digital technologies, the UNDP ICPSD SDG AI Lab and the UN Technology Bank for LDCs launched the Frontier Tech Leaders (FTL) Programme. The FTL programme aims to empower tech leaders, drive digital transformation in LDCs, and strengthen local capacities for the Sustainable Development Goals (SDGs). This initiative is classified as AI Capacity Building Program. However, under the Programme, the trainees are developing SDG-oriented AI or ML models.
- Department/Division: BPPS
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2023
- Data Source: Third-Party API's
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and

Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life On Land, 16. Peace, Justice, and Strong Institutions, and 17. Partnerships for the Goals.

- Partnership(s)/Collaborator(s): UN Technology Bank for LDCs (UNTB); UNDP Ethiopia; UNDP Djibouti; UNDP Afghanistan; UNDP Angola
- Relevant Links and Multimedia: <https://www.undp.org/policy-centre/istanbul/press-releases/frontier-tech-leaders-programme-launches-empower-lDCs-youth-digital-transformation>
- Contact information: Ipek Beril Benli, ipek.beril.benli@undp.org; Dina Akylbekova, dina.akylbekova.undp.org

Project 80: Pakistan SDGs Plus: Localizing AI Driven Data Solutions For Development Planning And Budgeting

- Project Description: The Government of Pakistan and UNDP are carrying forward eight years of their co-financed institutionalized partnership for national SDG legacy through a second-generation Pakistan SDGs Plus Program 2024-2030. Placing digitalization and generative AI-driven data solutions at the heart of our approach, this project will aim for: Improved governance for SDGs aligned and generative AI-powered equitable and inclusive annual development planning, budgeting, expenditure tracking, monitoring, and reporting in provincial governments of Punjab, Sindh, Khyber Pakhtunkhwa, and Balochistan, with a special focus on underdeveloped / marginalized districts to achieve regional equalization.
- Department/Division: Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Public Datasets, Third-Party API's
- Related Sustainable Development Goals (SDGs): 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequality, 11. Sustainable Cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life On Land, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): Government of Pakistan; Jazz Pakistan
- Relevant Links and Multimedia: <https://undppknhdr2024.com/>
- Contact information: Ammara Durrani, ammara.durrani@undp.org

Project 81: timbuktoo: Digital Infrastructure & Startup Readiness to Unlock Potential (DISRUPT)

- Project Description: A pan-African initiative to unlock startup potential by building AI-powered Digital Public Infrastructure (DPI), including AI Compute Hubs, advanced AI capacity-building through UniPods, and an AI-driven Financial Data Aggregation Platform (AFDAP) to boost entrepreneurship, financial inclusion, and economic growth.
- Department/Division: Regional Bureau for Africa
- Project Type/Output: AI Capacity Building
- Project Status: Ongoing
- Project Start Year: 2024

- Data Source: Oxford Insights AI Readiness Index, African Union Continental AI Strategy, World Bank, Central Bank of Brazil, Deloitte, internal UNDP initiatives and evaluations
- Related Sustainable Development Goals (SDGs): 4. Quality Education, 8. Decent Work and Economic Growth, 9. Industry, Innovation, Infrastructure, 16. Peace, Justice and Strong Institutions
- Partnership(s)/Collaborator(s): African Union, Universities, Pan-african innovation hubs
- Relevant Links and Multimedia: <https://timbuktoo.africa>
- Contact information: timbuktoo.africa@undp.org

Project 82: Hamburg Declaration on Responsible AI for the SDGs

- Project Description: The Hamburg Declaration on Responsible AI for the SDGs is a global framework developed through a multi-stakeholder consultative process to advance AI responsibly for attaining sustainable development goals, particularly in global majority countries. It will be launched at the second edition of the Hamburg Sustainability Conference from 2-3 June 2025. The declaration is comprised of principles aligned with five pillars - people, planet, prosperity, peace and partnerships along with concrete commitments outlining impactful pledges/targets for stakeholders to endorse.
- Department/Division: BPPS
- Project Type/Output: AI Partnerships, AI Engagements
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Primary and secondary research
- Related Sustainable Development Goals (SDGs): 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 8. Decent Work and Economic Growth, 10. Reduced Inequality, 12. Responsible Consumption and Production, 13. Climate Action, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals.
- Partnership(s)/Collaborator(s): BMZ and GIZ
- Relevant Links and Multimedia: <https://www.sustainability-conference.org/en/>
- Contact information: Yu Ping Chan yuping.chan@undp.org; Jayant Narayan jayant.narayan@undp.org; Marie Amoyi marie.amoyi@undp.org

Project 83: SDG Digital for AI

- Project Description: UNDP, alongside the ITU, has been championing the idea of leveraging digital technologies, including AI, for sustainable development and acceleration of SDGs through the SDG Digital. The initiative was launched in 2023 on the occasion of the UN SDG Summit. For 2 consecutive years, SDG Digital has been a flagship UN platform to showcase solutions that leverage digital technologies, to accelerate SDG progress, to generate new commitments, to foster new partnerships, and to explore trends, risks, and opportunities presented by digital and emerging technologies, with a specific focus on AI. In 2023, UNDP, together with ITU, published the SDG Digital Acceleration Agenda, a report which found that 70% of the 169 SDG targets can benefit directly from the use of digital technologies, including AI. In 2024, SDG Digital served as a platform for multiple AI solutions and catalyzed over \$1 billion in new investment pledges, unlocking funding for critical areas such as connectivity, digital infrastructure, and skills development.
- Department/Division: BPPS
- Project Type/Output: AI Partnerships, AI Engagements
- Project Status: Ongoing
- Project Start Year: 2023
- Data Source: N/A

- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty, SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 10 – Reduced inequalities, SDG 13 – Climate Action, SDG 16 – Peace, Justice, and Strong Institutions, SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s): International Telecommunication Union (ITU)
- Relevant Links and Multimedia: <https://www.undp.org/digital/sdgdigital>; <https://www.undp.org/blog/sdg-digital-solutions-and-commitments-everyone-everywhere>; <https://www.sdg-digital.org/>
- Contact information: Yu Ping Chan yuping.chan@undp.org, Megan Roberts megan.roberts@undp.org

Project 84: UNDP engagements around global multilateral processes and forums on AI

- Project Description: UNDP has been actively engaged in global and regional forums focused on AI development and governance, with the aim of positioning the organization as a leader in leveraging AI for sustainable development. UNDP plays a key role in global multilateral processes, including the Global Digital Compact (GDC) and broader UN system-wide coordination on AI, including the Interagency Working Group on AI. As a member of the UN Core Group on the GDC and the UN Group on the Information Society (UNGIS), UNDP contributed substantively to preparing UN inputs for the GDC. Following the adoption of the GDC in September 2024, UNDP has continued to support its implementation - contributing to the development of the implementation plan and participating in working groups, particularly around Objective 5 on Artificial Intelligence. UNDP also actively supports other UN-led mechanisms and platforms on AI. It collaborates with UNESCO on AI assessments and supports the Global Forum on AI and Digital Transformation in the Public Sector. UNDP also works with ITU and partners around AI4Good Global Summit and broader digital capacity-building efforts, with a focus on AI and cybersecurity. Through its participation in the World Summit on the Information Society (WSIS) processes, UNDP contributes directly and indirectly to global AI discussions. Together with partners, UNDP convened multiple meetings to discuss the alignment of WSIS with the GDC processes and objectives as well as the WSIS+20 review that is scheduled for 2025. UNDP has been also an active contributor to the key WSIS-related platforms like the WSIS Forum and Internet Governance Forum (IGF) participating in the design and discussions around digital cooperation. As a co-facilitator of WSIS Action Lines C4 (Capacity Building), C6 (Enabling Environment), and C11 (International and Regional Cooperation), UNDP advances initiatives that integrate AI as a core component of digital development. Additionally, UNDP is a member of the Inter-Agency Working Group on Artificial Intelligence (IAWG-AI), which strengthens system-wide coordination across the UN on AI-related issues. Within this group, UNDP co-leads - with UNESCO and ITU - an initiative to map AI-related capacity-building efforts across the UN system, helping to identify gaps and opportunities for greater alignment and impact.
- Department/Division: BPPS
- Project Type/Output: AI Partnerships, AI Engagements
- Project Status: Ongoing
- Project Start Year: N/A
- Data Source: N/A
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty, SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 10 – Reduced inequalities, SDG 13 – Climate Action, SDG 16 – Peace, Justice, and Strong Institutions, SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s): wider UN System
- Relevant Links and Multimedia: N/A

- Contact information: Yu Ping Chan yuping.chan@undp.org, Megan Roberts megan.roberts@undp.org

Project 85: AI Human Development Report 2025 - A matter of choice: People and possibilities in the age of AI

- Project Description: The Human Development Report, now in its 35th year, continues to have a huge influence on development thinking across the world. The 2025 Human Development Report tackles one of the seminal issues of our time: Artificial Intelligence (AI) and its implications for human development. While much of the public debate focuses on AI's technical capabilities and competitive dynamics, i.e., on who will "win" the AI race and whether AI will replace humans, the 2025 HDR widens this perspective. Rather than asking "when will AI surpass humans," it asks, "how can AI augment human capabilities, support wellbeing, and foster inclusive progress?"
- Department/Division: HDRO
- Project Type/Output: AI Report/Research
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Internal Data, Public Datasets, Partnerships and Consultations
- Related Sustainable Development Goals (SDGs): 2. Zero Hunger;1. No Poverty;3. Good Health and Well-being;4. Quality Education;17. Partnerships for the Goals;16. Peace, Justice, and Strong Institutions;15. Life On Land;14. Life Below Water;13. Climate Action;12. Responsible Consumption and Production;11. Sustainable Cities and Communities;10. Reduced Inequality;9. Industry, Innovation, and Infrastructure ;8. Decent Work and Economic Growth ;7. Affordable and Clean Energy;6. Clean Water and Sanitation;5. Gender Equality ;All SDGs
- Partnership(s)/Collaborator(s): Academia, think tanks, UN agencies. Consultations which informed the HDR can be found here: <https://hdr.undp.org/reports-and-publications/towards-2025-human-development-report>
- Relevant Links and Multimedia: <https://hdr.undp.org/reports-and-publications/towards-2025-human-development-report>
- Contact information: Heriberto.tapia@undp.org; Yanchun.zhang@undp.org ; Josefin.Pasanen@undp.org; Prachi.paliwal@undp.org

Project 86: AI & Human Development Survey

- Project Description: The UNDP Survey on AI and Human Development was conducted jointly by the Human Development Report Office (HDRO) and the Chief Digital Office (CDO) of UNDP. It was designed and deployed to capture public perspectives on AI across a range of countries (least developed, developing, and developed) and socio-demographic groups (age, gender, education, etc.).
- Department/Division: HDRO
- Project Type/Output: AI Report/Research
- Project Status: Complete
- Project Start Year: 2024
- Data Source: Global Survey
- Related Sustainable Development Goals (SDGs): 3. Good Health and Well-being;4. Quality Education;5. Gender Equality ;8. Decent Work and Economic Growth ;9. Industry, Innovation, and Infrastructure ;12. Responsible Consumption and Production;16. Peace, Justice, and Strong Institutions;17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): UNDP Internal
- Relevant Links and Multimedia: Only internally

- Contact information: Heriberto Tapia - Heriberto.tapia@undp.org; Yu-Chieh - yu-chieh.hsu@undp.org ; Antonio Reyes Gonzalez antonio.gonzalez@undp.org

Project 87: AI for Human Development: From Disruptor to Equalizer

- Project Description: UNDP aims to advance a more inclusive future with explicit focus on ensuring that vulnerable populations and enterprises are active participants in the technological transition and are not left behind. This project has a focus on artificial intelligence and aims to produce a flagship report, associated background papers and a knowledge exchange that will help policy makers achieve the following:
 - Advance more inclusive and responsible adoption of artificial intelligence (AI) that mitigates and does not exacerbate inequalities within and across countries.
 - Develop the human capital needed for countries to be competitive, drive innovation, sustain economic growth, and achieve long-term prosperity.
 - Recommend interventions that focus on addressing deep-rooted structural exclusions, with a focus on building the resilience of women, youth, informal workers, and MSMEs to future of work transitions (particularly AI induced transitions).
- Department/Division: Regional Bureau for Asia and the Pacific
- Project Type/Output: AI Report/Research
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data
- Related Sustainable Development Goals (SDGs): 8. Decent Work and Economic Growth, 10. Reduced Inequalities
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: N/A
- Contact information: Amos C Peters (amos.peters@undp.org)

Project 88: Atlas of Artificial Intelligence for Human Development of Latin America and the Caribbean

- Project Description: The Atlas is a strategic knowledge product developed by UNDP to map the impact of Artificial Intelligence (AI) across key dimensions of human development in Latin America and the Caribbean (LAC). It offers comparative data, identifies scalable innovations, evaluates regulatory frameworks, and outlines future policy pathways. Serving both as a dynamic knowledge hub and practical tool, it guides Country Offices and regional governments in designing inclusive, ethical, and forward-looking AI policies aligned with the 2030 Agenda.
- Department/Division: Regional Bureau for Latin America and the Caribbean
- Project Type/Output: AI Report/Research
- Project Status: Ongoing
- Project Start Year: 2024
- Data Source: Internal Data, Public Data
- Related Sustainable Development (SDGs): 4. Quality Education, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduced Inequalities, 16. Peace, Justice and Strong Institutions, 17. Partnerships for the Goals
- Partnership(s)/Collaborator(s): National governments in LAC, Private sector actors, Regional organizations
- Relevant Links and Multimedia: N/A
- Contact information: Enrique Crespo Peñaherrera (enrique.crespo@undp.org)

Project 89: Federation of BiH AI Policy Dialogue Platform & AI Roadmap Development

- **Project Description:** This initiative aims to co-create an inclusive and actionable roadmap for the responsible development and use of Artificial Intelligence (AI) in the Federation of Bosnia and Herzegovina (FBiH), aligned with human development principles and the FBiH Development Strategy. UNDP is partnering with the Association for Advancement of Science and Technology, the Academy of Sciences and Arts of BiH, and key government stakeholders with Federal Ministry of Education and Science in the lead, to facilitate a multi-phase dialogue process that brings together public institutions, academia, private sector, and civil society to address AI opportunities and challenges across sectors such as governance, education, health, economy, security, and media. This project includes:
 - A rapid diagnostic analysis of the current AI landscape in BiH,
 - A series of thematic roundtables to capture expert insights and stakeholder perspectives,
 - The development of a strategic platform document serving as a soft policy tool to guide decision-makers, businesses, and researchers
- **Department/Division:** Regional Bureau for Europe and the Commonwealth of Independent States
- **Project Type/Output:** AI Report/Research
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data, Public Datasets
- **Related Sustainable Development Goals (SDGs):**
- **Partnership(s)/Collaborator(s):** Association for Advancement of Science and Technology, the Academy of Sciences and Arts of BiH, Federal Ministry of Education and Science
- **Relevant Links and Multimedia:** N/A
- **Contact information:** Ismar Ceremida (ismar.ceremida@undp.org), Amina Omicevic (amina.omicevic@undp.org), Arijana Drinic (arijana.drinic@undp.org), Kemal Bajramovic (kemal.bajramovic@undp.org)

Project 90: Global High-Resolution Estimates of the United Nations Human Development Index Using Satellite Imagery and Machine-learning

- **Project Description:** This project develops a machine learning approach to estimate the Human Development Index (HDI) at high spatial resolution across the globe. By using satellite imagery it generates local HDI estimates, enhancing the ability to target development policies and monitor wellbeing in data-scarce regions. The intended impact is to improve local-level decision-making, enable more equitable targeting of development aid, and support policy planning in regions where traditional survey data are sparse.
- **Department/Division:** HDRO
- **Project Type/Output:** AI Report/Research
- **Project Status:** Complete
- **Project Start Year:** 2023
- **Data Source:** Public Datasets; Partner / Purchased Data
- **Related Sustainable Development Goals (SDGs):** 1. No Poverty; 3. Good Health and Well-being; 4. Quality Education; 8. Decent Work and Economic Growth
- **Partnership(s)/Collaborator(s):** 'University of California, Berkeley, Harvard Center for the Environment, Resources for the Future, Goldman School of Public Policy University of California

- Relevant Links and Multimedia: <https://www.nber.org/papers/w31044>, data found here: <https://www.mosaiks.org/hdi>
- Contact information: Heriberto Tapia, Heriberto.tapia@undp.org; Moumita Ghorai, moumita.ghorai@undp.org

Project 91: Intersection of AI & Human Development: Insights from Bangladesh

- **Project Description:** From UNDP Bangladesh Accelerator Lab, we conducted community level consultations to generate nuanced qualitative insights on the intersection of AI and human development to complement the 2025 Human Development Report titled: "Whose tech? Our choices: Making Artificial Intelligence Work for People." To generate qualitative insights, we have conducted a series of consultations across Bangladesh to explore how various groups experience and engage with AI technologies. The exploratory work mainly delved into the contrast between informed and uninformed AI adoption, highlighting disparities in access and awareness among different user groups and communities. Through 32 Focus Group Discussions (FGDs) involving 240 participants from five distinct groups, and 20 in-depth interviews (IDI), we uncover nuanced insights into AI perceptions, engagement, trust dynamics, and barriers to equitable adoption. FGD groups included young and older social media users, content creators, mobile financial service (MFS) users, individuals with disabilities, and individuals from marginalized (low formal education and tech-familiarity) backgrounds. Our findings highlight significant disparities in AI awareness and literacy across groups, underline widespread concerns regarding transparency and trust, and highlight the complex interplay between technological advancement and socio-economic inequalities. Ultimately, this study aims to inform technology and AI policy, design interventions, and strategies for fostering equitable, trustworthy, and inclusive AI adoption in Bangladesh and countries with comparable technological landscapes across the Global South.
- **Department/Division:** Regional Bureau for Asia and the Pacific
- **Project Type/Output:** AI Report/Research
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Data Source:** Internal Data, Primary data collected through community level Focus Group Discussions and In-Depth Interviews
- **Related Sustainable Development Goals (SDGs):** 10. Reduced Inequality, 16. Peace, Justice, and Strong Institutions
- **Partnership(s)/Collaborator(s):**
- **Relevant Links and Multimedia:**
- **Contact information:** Iffat Anjum (iffat.anjum@undp.org)

2. Related Sustainable Development Goals

All 17 SDGs

3. Relevant links

<https://www.undp.org/>

Contact Information

Gayan Peiris, gayan.peiris@undp.org; Julia Schoendienst, julia.schoendienst@undp.org

United Nations Department of Political and Peacebuilding Affairs and Department of Peace Operations



1. Description of Activities on AI

Project 1: AI -powered large-scale synchronous dialogues

- Project Description: Complementing other engagements and analytical methods to meaningfully enhance inclusivity and engage voices in peace processes, the Innovation Cell employs Artificial Intelligence (AI) for mediators and actors to hold real-time, synchronous, moderated consultations in languages of choice, including local dialects, with up to 1,000 people in a single session simultaneously, circumventing physical and linguistic barriers.
- Department/Division: DPPA – Policy and Mediation Division – Innovation Cell
- Project Type/Output: Software tool, Design Methodology
- Project Status: Ongoing
- Project Start Year: 2020
- Project Domain: Human Rights, Gender, Justice, Governance, Development, etc
- Data Source: Qualitative insights from participants in the AI-enabled digital dialogue.
- Publicly available data: No
- Technology/Platform: Interface with external software.
- Project Updates: 2024:
 - The Innovation Cell and the UN Liaison Office to the **League of Arab States** (UNLOLAS), collaborated with the League of Arab States (LAS) to facilitate a series of digital dialogues aimed at extending outreach and public consultation for developing an action plan to implement the LAS Arab Regional Youth, Peace, and Security (YPS) Strategy. In 2024, two digital dialogues took place, engaging 115 young peacebuilders from 17 Arab nations, with 85 actively participating, including 44% women, who provided valuable input to shape the YPS Strategy.
 - In **Guatemala**, three digital dialogues were held in partnership with the Resident Coordinator in Guatemala and Fundación Esquipulas. The series of dialogues helped approximately 455 participants (290 women), share views on electoral reforms, development and corruption. The dialogues are part of a project on youth political participation, with results to be validated in an in-person workshop with youth leaders and used to set an agenda for youth engagement.
 - Related Sustainable Development Goals (SDGs): SDG 5 – Gender Equality, SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Private Sector: Remesh.AI
- Relevant Links and Multimedia:
 - <https://futurespeace.org/ai-for-peacemaking.html>

- <https://iseek.un.org/nyc/article/unama-and-un-women-harness-ai-inclusive>
- <https://x.com/UNDPPA/status/1842563791738864049>
- <https://dppa.medium.com/using-the-power-of-ai-to-boost-youth-political-participation-in-guatemala-73a667d0ac3e>
- Lessons Learned: Digital dialogues have proven to be a valuable complement to traditional methods, expanding reach and enabling more flexible, real-time participation. Their success hinges on thoughtful process design—particularly in how questions are framed to elicit meaningful, contextually relevant responses. A key insight from this experience is the critical role of national staff in reviewing translations into local dialects. Their involvement ensures that linguistic nuances, cultural sensitivities, and contextual accuracy are preserved, thereby enhancing both the credibility and the inclusivity of the engagement process.
- Contact information: Naoko Takahashi Taymanov (naoko.takahashi@un.org) and Silva Armani (armani@un.org)

Project 2: Exploring the Potential and Risks of Generative Artificial Intelligence in the UN System

- Project Description: As Generative Artificial Intelligence technologies progress, they offer numerous advantages, such as improved knowledge management, enhanced translation capabilities, and efficient content generation. Especially with the release of AI applications such as ChatGPT, Perplexity.ai, and Microsoft Copilot, Generative AI continues to permeate the tools and applications used in the UN's daily work. To foster greater awareness and capabilities among UN staff regarding both the potential benefits and risks of this technology, DPPA's Innovation Cell organizes AI Innovation Workshops, including prompt engineering labs and other creative ideation sessions.
- Department/Division: DPPA – Policy and Mediation Division – Innovation Cell
- Project Type/Output: AI Innovation Workshops/Generative AI labs
- Project Status: Ongoing
- Project Start Year: 2023
- Project Domain: Generative AI
- Data Source: Insights from participants from across the UN system
- Publicly available data: No
- Technology/Platform: Microsoft Copilot
- Project Updates:

From 2024 to 2025, DPPA's Innovation Cell concluded a series of interactive Generative AI labs, designed specifically for political affairs officers at HQ and in the field. Over 500 staff members engaged in hands-on exercises to explore how Generative AI tools, and particularly Microsoft Copilot as the UN-sanctioned tool, can support their work. The labs sought to highlight the opportunities as well as the limitations and risks of using generative AI in political analysis. During the sessions, real-world UN use cases were discussed, guided by the Generative AI Reference Guide – Exploratory Prompts for Political Affairs Officers, newly developed by the DPPA Innovation Cell. Designed specifically for Microsoft Copilot, these tailored prompts help staff apply generative AI to daily tasks, serving as a practical, exploratory and complementary tool for Political Affairs Officers.

- Related Sustainable Development Goals (SDGs): SDG 16;
- Partnership(s)/Collaborator(s): DPPA-DPO Information Management Unit
- Relevant Links and Multimedia:
 - <https://iseek.un.org/nyc/article/dppa-genai-lab-exploring-ai-political-affairs-officers>

o <https://iseek.un.org/nyc/article/unama-hosts-pioneering-generative-ai-workshop>

- Lessons Learned: Feedback from the workshops highlighted the importance of training and sensitizing management and staff regarding the potential and the risks of AI.
- Contact information: Naoko Takahashi Taymanov (naoko.takahashi@un.org) and Silva Armani (armani@un.org)

Project 3: Geoguard

- Project Description: A dashboard that transforms raw open-source satellite data into user-friendly insights to enhance data-driven understanding of climate, peace and security. The platform covers 29 countries across the Middle East, West, and Central Africa.
- Department/Division: DPPA – Policy and Mediation Division – Innovation Cell
- Project Type/Output: Interactive Dashboard
- Project Status: Ongoing
- Project Start Year: expanded in 2024
- Project Domain: Climate, Peace and Security
- Data Source: Open-source satellite imagery
- Publicly available data: Yes
- Technology/Platform: Interactive Dashboard/earth observation data/ geocoded conflict data
- Project Updates:
In October 2024, as part of the growing work on climate, peace and security, DPPA launched the Geoguard dashboard, which can process open- source geospatial data from satellites orbiting the earth. The dashboard covers 29 countries across the Middle East, West Africa and Central Africa, providing decades of climate and environmental data to support informed decision-making on climate, peace and security linkages. For all users, Geoguard provides insights into historical environmental trends such as rainfall, temperature, and soil moisture.
- Related Sustainable Development Goals (SDGs): SDG 13, SDG 16
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia:
 - o <https://www.un.org/en/delegate/geoguard-new-tool-climate-peace-and-security>
 - o <https://vimeo.com/1011114679?share=copy>
- Lessons Learned:
- Contact information: Naoko Takahashi Taymanov (naoko.takahashi@un.org) and Peter Stephen Waring (peter.waring@un.org)

Project 4: E-Analytics and Innovation Training

- Project Description: In line with the [UN Secretary-General's Strategy on New Technologies](#) and Data Strategy, and the recent UN 2.0 policy brief, DPPA's annual *E-Analytics and Innovation Course* focuses on leveraging exploring innovative approaches in peace and security contexts. It provides an overview of the opportunities and challenges presented by emerging new technologies and equips participants with practical skills and tools to integrate evidence-driven analysis into UN initiatives for conflict prevention, peacemaking, and peacebuilding
- Department/Division: DPPA – Policy and Mediation Division – Innovation Cell
- Project Type/Output: Hybrid Course
- Project Status: Ongoing
- Project Start Year: expanded in 2019

- Project Domain: Capacity Building
- Data Source: Academics and experts
- Publicly available data: Yes
- Technology/Platform: online and in person
- Project Updates:
 - The Innovation Cell, in collaboration with the Guidance and Learning Unit, delivered its 6th edition of the E-Analytics and Innovation Training, equipping 25 participants (48% women) from 13 duty stations with skills in data analytics, Artificial Intelligence, and design thinking. The virtual course included lectures and hands-on-sessions on Large Language Models, open-source geospatial tools, and social media analytics for conflict monitoring and analysis. This culminated in an in-person lab in Doha, Qatar in January 2025, during which participants engaged in innovation processes, prototyping advanced technology solutions to support conflict prevention, preventive diplomacy, and mediation.
- Related Sustainable Development Goals (SDGs): SDG 16;
- Partnership(s)/Collaborator(s): Qatar Computing Research Institute
- Relevant Links and Multimedia:
 - <https://iseek.un.org/article/insights-e-analytics-and-innovation-lab-doha>
- Lessons Learned: Designing the course to align with DPPA's mandate and the UN 2.0 vision was instrumental in making project outputs more relevant, actionable, and grounded in institutional priorities. This strategic alignment encouraged participants to approach their prototypes with a focus on cost-efficiency and practicality—an especially important consideration given the current financial constraints.
- Contact information: Naoko Takahashi Taymanov (naoko.takahashi@un.org) and Silva Armani (armani@un.org)

2. Related Sustainable Development Goals

SDGs 5, 9, 13 and 16

3. Relevant Links

www.dppa.un.org

Contact Information

Naoko Takahashi Taymanov (naoko.takahashi@un.org)

United Nations Economic Commission for Europe



1. Description of Activities on AI

Project 1: Generative AI for Official Statistics

- Project Description: Generative AI is changing how official statistics are produced. Large language models (LLMs) offer new ways to automate tasks, use unstructured data, and assist staff with both technical and administrative duties. Responding to the increasing interest in the community, the UNECE High Level Group for the Modernisation of Official Statistics (HLG-MOS) produced a [white paper on LLMs](#) in 2023 to explore the opportunities and implications of LLMs for official statistics. Building on the LLM white paper, the "Generative AI and Official Statistics" project aims to investigate the potential of generative AI across various statistical production, considerations for building generative AI solutions, risk management and governance considerations that arise when statistical organizations want to use generative AI effectively and responsibly.
- Department/Division: Statistics
- Project Type/Output: Community of expertise, research collaboration
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Statistics
- Data Publicly available: No
- Project Updates: The final output of the project is a guidance report. Given the fast pace of development in the field, the project team agreed to release chapters of the paper as they are ready to receive feedback before compiling into a full report. Three out of six chapters have been completed.
- Related Sustainable Development Goals (SDGs): All the SDGs
- Partnership(s)/Collaborator(s):
 - Government: Ireland (co-lead of the project), Australia, Switzerland, Italy, Canada, Sweden, New Zealand, UK
- International organizations: Bank of International Settlements (co-lead of the project), OECD, EU
- Relevant Links and Multimedia:
 - https://unece.org/statistics/modernstats/projects#accordion_2,
 - <https://unece.org/media/statistics/Modernisation-of-Official-Statistics/news/394163>,
- Contact information: InKyung Choi (choii@un.org)

Project 2: Development of recommendations for global Automated Driving System safety requirements, including methods for scenario generation and verifiable criteria, covering the corresponding principles.

- **Project Description:** This project focused on developing and submitting recommendations for global Automated Driving System (ADS) safety requirements to the World Forum for Harmonization of Vehicle Regulations (WP.29). The project leveraged the deliverables from the Group on Functional Requirements for Automated Vehicles led by China (MIIT), Germany (KBA) and the United States of America (NHTSA) and on the deliverables of the Group on Validation Method for Automated Driving is led by Canada (Transport Canada), The Netherlands (RDW) and Japan (NTSEL). The partnership involved representatives from the Contracting Parties to the 1958 and 1998 Agreements (See treaties XI-B-16 and XI-B-32 on the webpage of the United Nations Treaty Section) dealing with adoption of requirements for the automotive sector, aiming to develop recommendations suitable for the different regimes of these Contracting Parties and, as much as possible, technology neutral. As some Contracting Parties raised specific questions about the evaluation of systems embedding some form of artificial intelligence, the experts gathered specific definitions, considered some of the industry use cases and adopted initial considerations on Artificial Intelligence in the context of road vehicles.
- **Work assumptions:** to Improve Road transport, Performance-based, Technology-neutral, Measurable, Feasible, and Socially acceptable.
- **Entity Name:** WP.29/Working Party on Automated/Autonomous and Connected Vehicles (GRVA)
- **Project Type/Output:** Seminar/meeting; Policy Framework; Intergovernmental working group dealing with technical regulations for vehicles.
- **Project Status:** Completed.
- **Project Start Year:** 2023
- **End Year:** 2024
- **Project Domain:** Automotive
- **Technology/Platform:** Technology neutral as much as possible and performance-based
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Wellbeing; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities
- **Partnership(s)/Collaborator(s)**
 - UN Partners: All UN Agencies may participate
 - Government: All UN Member States
 - Private Sector: Represented through NGO with ECOSOC accreditation
 - Civil Society: Represented through NGO with ECOSOC accreditation
 - Academia: In support of the national delegations or upon invitation
- **Relevant Links and Multimedia:**
- **Outcome of the project:**
 - [ECE/TRANS/WP.29/2024/39](#) titled Guidelines and recommendations for ADS safety requirements, assessments and test methods to inform regulatory development
 - Additional deliverable: [ECE/TRANS/WP.29/1182](#) titled Considerations on Artificial Intelligence in the context of road vehicles
 - Press conference: <https://www.unognewsroom.org/teleprompter/en/2244/unece-press-conference-regulating-autonomous-vehicles-26-june-2024/6755>
 - Meetings and documents: <https://unece.org/transport/vehicle-regulations/working-party-automatedautonomous-and-connected-vehicles-introduction>
- **Contact information:** Francois E. Guichard (francois.guichard@un.org)

Project 3: Developing a global regulatory framework for Automated Driving Systems

- **Project Description:** Building on the outcomes of Project 2, this project aims to develop a regulatory text for Automated Driving Systems (ADS) under the 1958 and 1998 Agreements. The World Forum for Harmonization of Vehicle Regulations adopted the Guidelines and recommendations for ADS safety requirements, assessments and test methods to inform regulatory development, concluding five years of preparatory work. The Executive Committee of the 1998 Agreement (XI-B-32) and the World Forum for Harmonization of Vehicle Regulations authorized the Working Party on Automated/Autonomous and Connected Vehicles to develop a global set of requirements fostering harmonization of vehicle regulations in that field and leveraging the outcome of project 2. This initiative is led by China (MIIT), Canada (Transport Canada, European Union (European Commission), Japan (MLIT), United Kingdom of Great Britain and Northern Ireland (DfT) and the United States of America (NHTSA).
- **Entity Name:** WP.29/Working Party on Automated/Autonomous and Connected Vehicles (GRVA)
- **Project Type/Output:** Policy Framework; Seminar/meeting; Intergovernmental working group dealing with technical regulations for vehicles.
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Project End Year:** Envisaged by mid 2026
- **Project Domain:** Automotive
- **Technology/Platform:** technology neutral, performance-based,
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-Being; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities
- **Partnership(s)/Collaborator(s):**
 - UN Partners: All UN Agencies may participate.
 - Government: All UN Member States
 - Private Sector: Represented through NGO with ECOSOC accreditation
 - Civil Society: through NGO with ECOSOC accreditation
 - Academia: In support of the national delegations or upon invitation
- **Meetings and documents:** <https://wiki.unece.org/pages/viewpage.action?pageId=238223362>
- **Contact information:** Francois E. Guichard (francois.guichard@un.org)

Project 4: Task Force on Digitalization in Energy

- **Project Description:** Technologies facilitating new market opportunities: digital innovations – tools, technologies and processes (such as Artificial Intelligence, Blockchain, Machine Learning, Advanced Data Analytics, Internet-of-Things, Big Data, Cloud Computing, Sensors, Automation, 3D Printing, Robotics, etc.), are inspiring energy suppliers, transmission and distribution companies, and demand sectors (buildings, industry, transport) to establish new business models allowing to generate, deliver and consume energy in a more sustainable fashion. These innovative technologies are providing new opportunities to businesses by changing the way how interaction happens, optimizing processes, enhancing flexibilities, and improving efficiencies.
The Task Force on Digitalization in Energy was established by the UNECE Committee on Sustainable Energy in 2020 with the mandate for the period of 2021-2022, which was further extended for 2023-2024 and then 2025-2026, with a possibility of extension. The Task Force on Digitalization in Energy reports to the Group of Experts on Energy Efficiency. The Task Force provides a platform for cross-industry experts from the energy

sector (including from the other subsidiary bodies of the Committee on Sustainable Energy) and digital innovations to develop a unified voice on digitalization in energy. It critically explores the landscape of stakeholders through a constructive dialogue (including assessment of opportunities, challenges, risks, and trade-offs) to understand the interaction in the digitalized energy system and bringing consensus about the approach that should be considered for shaping the future of the energy system. Activities of the Task Force also include aggregating and reviewing the existing national policy initiatives as well as harmonizing the information produced by other key national and international bodies, in order to better assist policymakers and other stakeholders in UNECE region to provide evidence-based direction to achieve the higher levels of efficiency in the energy system.

The Task Force on Digitalization in Energy organizes and participates in international events and is being increasingly recognized as a sound expert body. In 2025, it focuses on the following research tracks: Interoperability and open source to accelerate the digital transformation of the energy system; Twin transition in non-electricity sectors; Intersection between large-scale digitalization and environmental sustainability (data centres' use and impact); and conducts a regional survey on digitalization in energy.

- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Conference (multiple meetings on a theme), papers
- Project Status: Ongoing
- Project Start Year: 2021
- Project Domain: Sustainable Energy
- Data Source: Publicly available data sources, industry insight, questionnaires.
- Related Sustainable Development Goals (SDGs): SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UN and other international Partners: United Nations Development Programme, United Nations Economic and Social Commission for Western Asia, United Nations Economic and Social Commission for Asia and the Pacific, UNEP-CCC Copenhagen Climate Centre, United Nations Institute for Training and Research, International Renewable Energy Agency, EITI International Secretariat, ASEAN Centre for Energy, World Energy Council, BRICS Youth Energy Agency
 - Government: Swiss Federal Office of Energy, Ministry of the Environment (France), Department for Business, Energy and Industrial Strategy (United Kingdom), Ministry of Energy (Russian Federation), Ministry of Energy (Republic of Moldova)
 - Private Sector: The Energy Authority, Energy Policy Group, Sustainable Decisions, North American Electric Reliability Corporation, DigiTransfo Expertise, Grid Singularity, Irys, Google X, Hydro-Quebec, FSR Global, Women in Sustainable Finance, Foresight Fund, Partisia Blockchain Foundation, Powerledger, Geostrata, Microsoft, Exwealis, Clean Rivers
 - Academia: International Energy Research Centre (Energy Informatics), Vector Institute, University of Bayreuth (Fraunhofer Blockchain Lab), Institute for Energy Efficiency in Production (EEP), University of Salento, Denmark Technical University, University of Luxembourg, Columbia University (Energy and Environment), Technical University of Munich (School of Social Sciences and Technology), ETH Zurich, Centre for Strategic Research Foundation, International University of Monaco, Berkeley Lab, Blavatnik School of Government, KTH Royal Institute of Technology, University of Warwick.
- Relevant Links and Multimedia: <https://unece.org/sustainable-energy/energy-efficiency/digitalization-energy>
 - https://unece.org/sites/default/files/2020-12/GEEE-7.2020.INF_3.pdf

- <https://unece.org/sed/documents/2021/06/working-documents/improving-efficiency-buildings-through-digitalization>
- <https://unece.org/sed/documents/2022/07/session-documents/digitalization-accelerating-electricity-system>
- <https://unece.org/sed/documents/2022/07/session-documents/addressing-behavioural-barriers-energy-digitalization>
- <https://unece.org/sed/documents/2022/07/informal-documents/policy-discussion-challenges-big-data-and-analytics-driven>
- <https://unece.org/sed/documents/2023/08/working-documents/key-considerations-and-solutions-ensure-cyber-resiliency-0>
- <https://unece.org/sed/documents/2023/08/working-documents/improving-efficiency-and-reliability-energy-systems-means-1>
- <https://unece.org/sustainable-energy/publications/digitalization-energy-case-study-grid-edge-management-reference>
- <https://unece.org/sustainable-energy/publications/digitalization-energy-case-study-cyber-resilience-critical-energy>
- <https://unece.org/sed/documents/2024/07/working-documents/impact-artificial-intelligence-digital-and-data>
- <https://unece.org/sed/documents/2024/08/informal-documents/twin-transition-non-electricity-sector>
- <https://unece.org/sed/documents/2024/08/informal-documents/balancing-electricity-supply-and-demand-artificial>
- <https://unece.org/sed/documents/2024/08/informal-documents/behavioural-barriers-adoption-smart-meters>
- <https://unece.org/info/Sustainable-Energy/Energy-Efficiency/pub/398900>
- <https://unece.org/sed/documents/2025/03/informal-documents/integrating-twin-transition-legacy-energy-systems-SEECCA>
- Contact information: Igor Litvinyuk (litvinyuk@un.org)

Project 5: Development of national case studies on digitalization in energy

- **Project Description:** In 2023–2024, the Task Force on Digitalization in Energy developed national case studies aiming to raise awareness of UNECE member States about how digitalization can enhance energy system performance, expand access to energy, and address environmental, social, and economic challenges. This publication is the result of this research track of the Task Force. Testing the UNECE policy recommendations on digitalization contained in the body of work of the Task Force, the publication focuses on the governance frameworks that are necessary to effectively manage digital transformations in energy and features case studies from Australia, Canada, Germany, Ireland, Lithuania, Republic of Moldova, Russian Federation, United Arab Emirates, and the United States of America, on the following subjects: Governance policy of digitalization in energy (2024); Balancing the electricity supply and demand with Artificial Intelligence (2024); Grid edge management reference architecture and policy recommendations for interoperability and resilience (2023); Cyber resilience of critical energy infrastructure (2023); Behavioural barriers in adoption of smart meters (2024). The publication also features discussion about the transformative role of digitalization across various energy sectors beyond electricity, and concludes with a set of recommendations on governance policies, on interoperability and resilience, on the use of digital technologies for grid management and on digital transformation in the energy sectors other than electricity, on cybersecurity and cyber resilience of energy infrastructure, and on behavioural aspects in the context of adoption of digital technologies. It serves as a valuable source of information for policymakers, energy professionals, and stakeholders involved in steering the energy sector towards a more digital, sustainable, and inclusive future.

- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Compendium of national case studies (minimum five case studies)
- Project Status: In progress (two case studies published)
- Project Start Year: 2022
- Project End Year: 2025
- Project Domain: Energy; Telecommunications
- Data Source: Publicly available data sources.
- Related Sustainable Development Goals (SDGs) SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN and Other International Partners: United Nations Development Programme (UNDP) Sustainable Energy Hub, (UNDP Chief Digital Office, UNDP Moldova, UNDP Bureau for Policy and Programme Support, UNEP-CCC Copenhagen Climate Centre, United Nations Economic and Social Commission for Western Asia
 - Government: Russian Energy Agency, Ministry of Energy of the Russian Federation, Swiss Federal Office of Energy
 - Private Sector: Energy Policy Group, Grid Singularity, The Energy Authority, European Economic and Social Committee, DigiTransfo Expertise, Partisia Blockchain Foundation, Hydro-Québec, Energy Web Foundation, Sustainable Decisions, Melyoura, Women in Sustainable Finance
 - Academia: Institute for Energy Efficiency in Production, Denmark Technical University, International Energy Research Centre (Tyndall National Institute), Vector Institute, University of Warwick, Technical University of Munich
- Relevant Links and Multimedia:
 - [Case Study on "Grid Edge Management Reference Architecture and Policy Recommendations for Interoperability and Resilience"](#)
 - [Case study on "Cyber Resilience of Critical Energy Infrastructure"](#)
 - Case study on "[Governance policy of digitalization in energy](#)": [Grid Edge Management Reference Architecture and Policy Recommendations for Interoperability and Resiliency](#)
 - Case study on "[Balancing the electricity supply and demand with Artificial Intelligence](#)":
 - Case study on "[Behavioural barriers in adoption of smart meters](#)"
 - Publication "[Compendium of Case Studies on Digitalization in Energy in UNECE Region](#)"
- Contact information: Igor LITVINYUK (litvinyuk@un.org)

Project 6: Assessing the impact of Artificial Intelligence on the digital and data transformation in the electricity sector

- Project Description: Digital technologies and data hold tremendous potential to accelerate clean energy transitions across the energy sector. Digitalization can help cut investment needs, reduce operational and fuel source related costs, improve efficiency and resilience, and reduce emissions. However, further efforts by policymakers and industry will be necessary to realize the full potential of digitalization. This includes the implementation of enabling standards, policies and regulations that prioritize innovation and interoperability while addressing risks to cybersecurity and data privacy. This document focuses on Artificial Intelligence as a technology to meet not only the energy

trilemma goals of sustainable, affordable and secure energy, but also with the focus on the digital transition as it applies to the electricity sector of the energy value chain.

- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Official document
- Project Status: Concluded
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Energy; Telecommunications
- Data Source: Publicly available data sources.
- Related Sustainable Development Goals (SDGs) SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 –Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: UNEP-CCC Copenhagen Climate Centre, United Nations Economic and Social Commission for Western Asia
 - Government: Swiss Federal Office of Energy
 - Private Sector: The Energy Authority, DigiTransfo Expertise, Exwealis
 - Academia: International Energy Research Centre (Tyndall National Institute), Vector Institute, Denmark Technical University, Columbia University, International University of Monaco, Blavatnik School of Government
- Relevant Links and Multimedia:
 - <https://unece.org/sed/documents/2024/07/working-documents/impact-artificial-intelligence-digital-and-data>
- Contact information: Igor Litvinyuk (litvinyuk@un.org)

Project 7: The twin transition in non-electricity sector

- Project Description: This document discusses the role of digitalization in energy sectors other than electricity, and raises the important questions surrounding the subject. One of the stated goals is to raise awareness among the member States and the expert community across geographies about the ongoing research on this track, calling for collaboration and in-depth analysis on the highlighted matters and other issues of common concern in the area of digital transformation of the energy sector.
- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Background (informal) document (2024), followed by Official document (2025)
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Energy; Telecommunications
- Data Source: Publicly available data sources.
- Related Sustainable Development Goals (SDGs) SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 –Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: UNEP-CCC Copenhagen Climate Centre

- Government: Swiss Federal Office of Energy
- Private Sector: Energy Policy Group, The Energy Authority, Partisia Blockchain Foundation
- Academia: Institute for Energy Efficiency in Production, Columbia University, Denmark Technical University, Blavatnik School of Government
- Relevant Links and Multimedia:
 - <https://unece.org/sed/documents/2024/08/informal-documents/twin-transition-non-electricity-sector>
- Contact information: Igor Litvinyuk (litvinyuk@un.org)

Project 8: “Digitalization in support of energy systems’ transformation in the UNECE region” (project under UNECE Regular Programme of Technical Cooperation)

- Project Description: This project responded to the requests made by the National Agency of Natural Resources of Albania, the Ministry of Economy and Sustainable Development of Georgia, and the Energy Efficiency Department of the State Committee for Standardization of the Republic of Belarus to UNECE to support these countries in their energy systems’ transformation. The study “Integrating twin transition with legacy energy systems: regional overview of the selected countries in Central Asia, the Caucasus, Eastern and South-Eastern Europe” developed as part of the project, presents an analysis of the integration of digital technologies and renewable energy sources within legacy energy systems in Central Asia, the Caucasus, and Eastern and South-Eastern Europe (SEECCA). Revealing the vulnerabilities of existing energy systems, it highlights the potential for local generation, leveraging integrating platforms for Distributed Energy Resources (DERs), and readiness for advanced technologies such as artificial intelligence, virtual power plants, and cybersecurity measures. Robust regulatory frameworks, constant monitoring of innovation trends and their applications, as well as international and interregional cooperation play a crucial role in facilitating the energy transition. At the same time, projections of growing fossil fuel consumption by 2030, the “dual nature of digitalization,” and the acute need for modernization and significant capacity increases in grids, as well as viability of “hybrid models”, were recognized at COP29 in Baku. The collaboration between tech leaders and fossil fuel-based business leaders in digital energy initiatives, as evidenced by the Trans-Caspian global initiatives, are instrumental in this regard. Relevant holistic investment strategies and stakeholder engagement will focus on leveraging shared resources and expertise while aligning with SDGs, specifically SDG 7. By pursuing this approach, SEECCA countries can overcome common challenges and capitalize on emerging opportunities in the energy sector for a just transition that extends benefits to all parties concerned.
- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Background (informal) document
- Project Status: Concluded
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Energy; Telecommunications
- Data Source: Publicly available data sources.
- Related Sustainable Development Goals (SDGs) SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 –Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: N/A

- Government: N/A
- Private Sector: N/A
- Academia: N/A
- Relevant Links and Multimedia:
 - <https://unece.org/sed/documents/2025/03/informal-documents/integrating-twin-transition-legacy-energy-systems-SEECCA>
- Contact information: Igor LITVINYUK (litvinyuk@un.org)

Project 9: Platform for Resilient Energy Systems - chatenergy.app

- Project Description: Countries across the ECE region are in high need of tools to make informed decisions on how to design and build resilient energy systems (i.e. ones where energy makes an optimal contribution to a country's social, economic, and environmental development and that is able to withstand and recover quickly from any unanticipated shocks and reflects potential impacts of climate change on energy resources in its planning and operations). With a mission to mainstream the resiliency concept and systems-thinking approach in national policies UNECE is shaping a Platform for Resilient Energy Systems. Its objective is to provide member States and the energy expert community with an advanced AI-based tool that allows to navigate through a secure, comprehensive and authoritative knowledge base built by UNECE and partnering organizations (EIB, ESCAP, IAEA, IEA, IRENA, OSCE, WMO, etc.), producing user-friendly inputs and insights for informed decisions on how to create more resilient energy systems. The demo-version of the Platform is called [chatenergy.app](#) and has been developed by the team of prof. M. Leipold from University of Zurich. UNECE is working on mobilizing funds to establish a fully operational AI-enabled query & response platform which can leverage a library composed of energy documents from authoritative sources and provide real-time, summarized insights, enable UNECE and the wider community to spot knowledge gaps and trends, provide support for UNECE member States and beyond in drafting future energy policies and guidelines. The AI model will be specifically crafted with vetted data and tailored for the unique requests regarding energy systems resilience.
- Department/Division: UNECE Sustainable Energy Division
- Project Type/Output: Software Tool
- Project Status: ongoing (launched at the thirty-second session of the Committee on Sustainable Energy)
- Project Start Year: 2023
- Project End Year: 2027
- Project Domain: Energy; Technology and Applications;
- Data Source: Publicly available data sources from partnering organizations.
- Related Sustainable Development Goals (SDGs) SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation and Infrastructure; SDG 11 - Sustainable Cities and Communities; SDG 13 - Climate Action; SDG 17 - Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - EIB, IEA, IRENA, OSCE
 - UN Partners: UNICC, IAEA, WMO, ITU, ESCAP, ECLAC
- Relevant Links and Multimedia: <https://unece.org/climate-change/press/unece-and-partners-develop-ai-powered-platform-help-build-resilient-energy>
- Contact information: Iva BRKIC (iva.brkic@un.org)

Project 10: United for Smart Sustainable Cities (U4SSC)

- **Project Description:** In 2016, UNECE and the International Telecommunication Union (ITU) established the UN global initiative United for Smart Sustainable Cities (U4SSC), which currently involves 16 UN bodies. U4SSC is a global platform for smart cities stakeholders, which advocates for public policies to encourage the use of ICT to facilitate the transition to smart sustainable cities. The initiative aims to: Generate guidelines, policies and frameworks for the integration of ICTs into urban operations, based on the SDGs, international standards and urban key performance indicators (KPIs); and help streamline smart sustainable cities action plans and establish best practices with feasible targets that urban development stakeholders are encouraged to meet. The topics of this phase of U4SSC are: circular cities, financing smart sustainable cities projects, blockchain in cities, artificial intelligence in cities, sensing technologies and Internet of Things in cities. The initiative delivers policy guidelines and training materials through the work on specific outputs elaborated via regular e-meetings and physically gathers once per year. In 2017, the U4SSC stakeholders also elaborated a set of Key Performance Indicators (KPIs) for smart sustainable cities which includes 92 indicators (core and advanced) divided in the 3 dimensions of sustainable development: economy, environment, and society and culture. The indicators are fully aligned with the Sustainable Development Goals (SDGs) and serve as a tool for evidence-based decision making, progress monitoring and achieving the SDGs at the local level. They are being implemented by 50 cities of different sizes and development worldwide.
- **Department/Division:** Cities Unit; Forests, Land and Housing Division
- **Project Type/Output:** Multi-agency partnership
- **Project Status:** Ongoing
- **Project Start Year:** 2016
- **Project Domain:** Sustainable urban development
- **Related Sustainable Development Goals (SDGs):** SDG 11 – Sustainable Cities and Communities; SDG 17 – Partnership for the Goals
- **Partnership(s)/Collaborator(s):**
 - UN Partners: UNECE, ITU, UN Habitat, CBD, ECLAC, FAO, UNDP, UNECA, UNESCO, UNEP, UNEP-FI, UNFCCC, UNIDO, UNOPS, UNU-EGOV, UN-Women, UNDESA and WMO
- **Relevant Links and Multimedia:**
 - <https://unece.org/housing/sustainable-smart-cities>
 - <https://twitter.com/UNECEHLM>
 - <https://www.facebook.com/UNECE.Housing/>
- **Contact information:** Tea Aulavuo (tea.aulavuo@un.org) and Maike Salize (maike.salize@un.org)

Project 11: Regulatory compliance of products with embedded artificial intelligence or other digital technologies

- **Project Description:** Products with embedded technologies present specific challenges to their conformity assessment and market surveillance. Regulators need to ensure that the products are safe and secure (for consumers, for the environment, for public health, for the culture...) while not stifling innovation. Agencies may approach such products differently, resulting in technical regulations which may not be harmonized between countries and may not even be harmonized within a same country. This would in turn create problems for traders as they may need to adapt their product for multiple markets. An additional challenge for regulators is the possibility for these types of products to evolve in time, either because of their own learning or because of distant updates coming

from a remote source potentially outside of the country. Market surveillance authorities need to ensure that these products remain compliant throughout their lifecycle and do not receive updates which may render them non-conformant to regulations.

The UNECE-WP6 has developed a guidance on this topic based on its Recommendation L which proposes a policy framework document to encourage harmonization of such technical regulations through a voluntary mechanism called a common regulatory arrangement (CRA). This is accompanied by a declaration that member States can sign to signify their adherence to the base principles in the CRA.

- Department/Division: Economic Cooperation and Trade Division, Working Party on Regulatory Cooperation and Standardization Policies (WP.6)
- Project Type/Output: Policy Framework (a “common regulatory arrangement” as per UNECE-WP.6 Recommendation L. Declaration that countries could ratify on this topic), White Paper
- Project Status: Published; Ongoing
- Project Start Year: 2021
- Project End Year: 2024+
- Project Domain: Trade
- Data Source: Concerns technical regulations on products. Will address international standards and conventions to which such products should remain compliant (see the white paper already completed).
- Project updates:
- In 2025, WP.6 held a series of conferences related to this topic; the material is available on the event webpages. See for example the 10 April 2025 conference: “Challenges and Opportunities of Regulating Products with Embedded Artificial Intelligence” (see: <https://unece.org/info/Trade/WP.6-Meetings/events/400039>)
 - In 2024, the project team delivered the final CRA and Declaration, consolidated into the ECE publication “Compliance of products with embedded artificial intelligence” (ECE/TRADE/486), available at: https://unece.org/trade/publications/ece_trade_486
 - In 2023, the project team delivered a White Paper with the base principles, available at: <https://unece.org/trade/documents/2023/12/session-documents/regulatory-compliance-products-embedded-artificial>
 - Further information on project advancement available at: <https://unece.org/trade/wp6/digital-regulation-goods-artificial-intelligence>
- Related Sustainable Development Goals (SDGs): SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 12 – Responsible Consumption and Production, SDG 16 – Peace, Justice, and Strong Institutions, SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s): Note that this project is under UNECE WP.6. All projects within WP.6 are open to all experts and experts participate in their own capacity without representing any countries, organizations or specific interests. The resulting deliverables are presented to UN Member States for endorsement.
- Relevant Links and Multimedia:
 - <https://unece.org/trade/wp6/digital-regulation-goods-artificial-intelligence>
 - https://unece.org/trade/wp6/Projects#accordion_4
- Contact information: Lance Thompson (regulatory.cooperation@un.org)

Project 12: Gender perspective on standards for artificial intelligence

- Project Description: This project addresses the urgent need to mitigate gender bias in artificial intelligence (AI) systems, particularly as these technologies become increasingly

influential in sectors such as healthcare, finance, recruitment, and public services. AI systems frequently inherit and amplify historical gender biases present in training data, model design, and algorithmic logic. These biases disproportionately harm women and marginalized gender groups by reinforcing systemic inequalities, restricting access to essential services, and limiting economic and professional opportunities. Examples include diagnostic inaccuracies in healthcare, discriminatory hiring practices, economic exclusion via biased financial assessments, misidentification in public safety systems, and the reinforcement of gender stereotypes through digital content and job ads.

To counter these harms, the project emphasizes the need for comprehensive, interdisciplinary strategies that address bias at its roots rather than relying on superficial fixes. This involves collaboration between technologists and affected communities, rigorous evaluation of data and models, and the development of transparent, inclusive standards for AI. By understanding and addressing the structural origins of algorithmic bias—whether rooted in data, technology, or social context—AI systems can be designed to promote equity rather than deepen existing disparities.

- Department/Division: Economic Cooperation and Trade Division, Working Party on Regulatory Cooperation and Standardization Policies (WP.6)
- Project Type/Output: White Paper / Guidance
- Project Status: Published; Ongoing
- Project Start Year: 2025
- Project End Year: 2026
- Project Domain: Trade / Gender
- Data Source: Concerns standards for artificial intelligence. Will address international standards and conventions to which such products should remain compliant.
- Project updates:
 - In 2025, WP.6 held a scoping conference related to this topic; the material is available on the event webpages. See 8 April 2025 conference, “A Gender Perspective on Standards for Artificial Intelligence”: <https://unece.org/info/Trade/WP.6-Meetings/events/399966>
- Related Sustainable Development Goals (SDGs): SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities,
- Partnership(s)/Collaborator(s): Note that this project is under UNECE WP.6. All projects within WP.6 are open to all experts and experts participate in their own capacity without representing any countries, organizations or specific interests. The resulting deliverables are presented to UN Member States for endorsement.
- Relevant Links and Multimedia:
 - <https://unece.org/gender-responsive-standards-team-specialists>
- Contact information: Lance Thompson (regulatory.cooperation@un.org)

Project 13: Unleashing the power of innovation for climate action: AI for net zero and climate resilient infrastructure.

- Project Description: Artificial Intelligence (AI) is revolutionizing industries, transforming how we work, live and learn.
AI greatest strength lies in its ability to process vast amounts of information at significantly higher scope and speed and employing machine learning systematically. AI helps identify patterns, predict outcomes, automate and optimize resource allocation, and provide much better foundation for informed decisions. This is why AI offers enormous opportunities to tackle climate change and it can be used extensively both in climate change mitigation and adaptation efforts.

At its 16th session in November 2024, the UNECE Team of Specialists on Innovation and Competitiveness Policies dedicated its international policy dialogue to the theme of Transformative Innovation and AI for Climate Action and Resilient Infrastructures. The policy dialogue gave the opportunity to member States to explore the benefits and opportunities of the development and use of AI in climate change mitigation, the energy transition to net-zero and climate change adaptation and disaster risk reduction. Member States and experts also considered the risks and challenges of AI, particularly its large environmental footprint and identified policy recommendations for action.

As outcome of the session a policy paper was developed with contributions from experts in governments, the private sector and other international organizations. The paper proposes policy recommendations to both member States and the private sector to make AI environmentally sustainable and equitable as well as recommendations on AI governance. The policy paper will be presented for endorsement at the UNECE Committee on Innovation, Competitiveness and Public-Private Partnerships in June 2025. The policy recommendations on AI will be further developed and mainstreamed in the Innovation for Sustainable Development Reviews and the Innovation Policy Outlook, as well as in capacity building work at the request of member States. The ECE Transformative Innovation Network (ETIN), ETIN will explore opportunities and share lessons learned in applying AI in transformative innovation policy design and implementation. In between ToS-ICP annual sessions, ETIN will continue the dialogue on selected AI topics.

- Department/Division: Economic Cooperation and Trade Division, Team of Specialists on Innovation and Competitiveness Policies
- Project Type/Output: Policy paper and policy recommendations for action
- Project Status: Published; Ongoing
- Project Start Year: 2024
- Project End Year: 2025+
- Project Domain: Innovation policy
- Data Source: Concerns innovation policy and innovation governance. Will address international standards, regulations and policies already in place in the ECE region.
 - Further information on the work of ToS-ICP can be found at: <https://unece.org/economic-cooperation-and-integration/innovation-and-competitiveness-policies-icp>
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 12 – Responsible Consumption and Production, SDG 13 – Climate Change, SDG 17 – Partnerships for the Goals.
- Partnership(s)/Collaborator(s): Note that this project is under ToS-ICP. All projects within ToS-ICP are open to all member States and experts participating in their own capacity. UNESCO, UNCTAD, OECD, WEF, ITU
- Relevant Links and Multimedia: <https://unece.org/media/news/397202>
- Contact information: Katia Adamo (katia.adamo@un.org)

Project 14: Policy Briefs series on AI-enhanced PPPs and infrastructure projects for the SDGs: Potential and limitations

- A new Policy Briefs series has been launched in 2025 to explore the opportunities and challenges that artificial intelligence (AI) poses to Public-Private Partnerships (PPPs) and infrastructure throughout the project lifecycle. It highlights the potential for AI to lower transaction costs for governments and streamline PPP processes, contributing to the efficiency and effectiveness of these partnerships in achieving the Sustainable Development Goals (SDGs). However, these benefits must be weighed against the legal, ethical, and technical risks involved in AI implementation. The series will be complemented by webinars and podcasts organised by the secretariat including experts

from governments, private sector, academia, civil society, and international organisations, and it will discuss both the advantages and disadvantages of using AI in PPPs and infrastructure projects, including its current applications and future potential in predicting infrastructure needs and analysing data.

- Department/Division: Economic Cooperation and Trade Division, Working Party on Public-Private Partnerships (WP PPP)
 - Project Type/Output: Policy briefs, supplemented by webinars or podcasts
 - Project Status: Ongoing
 - Project Start Year: 2025
 - Project End Year: 2026
 - Project Domain: Public-Private Partnerships
 - Data Source: Publicly available data sources.
 - Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure, SDG 17 – Partnerships for the Goals
 - Partnership(s)/Collaborator(s):
 - UN Partners: All UN Agencies may participate
 - Government: All UN member States
 - Private Sector: At the invitation of the secretariat
 - Civil Society: At the invitation of the secretariat
 - Academia: At the invitation of the secretariat
 - The resulting deliverables will be disseminated among the PPP community and posted on the ECE website with a disclaimer that the Policy Briefs are written by experts and are published by the secretariat and the views expressed in them do not necessarily represent the position of the United Nations or its officials or the Member States.
 - Relevant Links and Multimedia:
- <https://unece.org/ppp/products>
- Contact information:
 - Tony Bonnici (ppp@un.org)

2. Related Sustainable Development Goals

All the SDGs

3. Relevant links

<https://www.unece.org/info/ece-homepage.html>

Contact Information

Thomas Croll-Knight, Information Unit, United Nations Economic Commission for Europe
(thomas.croll-knight@un.org)

United Nations Environment Programme



1. Description of Activities on AI

Project 1: Digital Accelerator Lab

- Project Description: UNEP's Digital Accelerator Lab houses 20 cutting-edge digital tools, including one that allows users to track the health of rivers, lakes, and aquifers. The Lab showcases AI-powered solutions, digital prototypes, reports, and resources aligned with the Global Environment Data Strategy (GEDS) to improve environmental data management and use. It offers early-stage tools for testing and feedback, such as a chatbot that employs advanced machine learning and artificial intelligence to synthesize authoritative scientific knowledge on environmental topics. Continuously updated, this digital space demonstrates UNEP's commitment to leveraging AI, technology, and data to meet environmental goals. Currently, it features 10 prototypes and 10 digital applications, alongside various reports and resources. The Lab also provides funding, technical support, and user-centered design services, and is presented at major events to gather feedback, validate ideas, and raise awareness.
- Entity Name: UNEP
- Project Type/Output: Digital Solutions
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: N/a
- Domain: Environment, technology
- Data Source: Various depending on the use case
- Publicly Available Data: Yes
- Technology/Platform: Various depending on the use case
- Related Sustainable Development Goals (SDGs): SDG Goals [6](#), [8](#), [12](#), [14](#), [15](#) and [17](#)
- Partnership(s)/Collaborator(s): Various depending on the use case
- Relevant Links and Multimedia: <https://www.unep.org/topics/digital-transformations/digital-accelerator-lab>
- Lessons Learned: One key lesson learned from the Digital Accelerator Lab is the importance of starting from a clearly defined environmental demand to ensure that digital and AI tools address real-world challenges. Engaging users early in the development process has proven critical for refining solutions through continuous feedback and testing. This iterative approach not only improves usability but also ensures that tools are fit for purpose. Additionally, collaboration across sectors and disciplines has been essential to co-creating impactful solutions and accelerating innovation.
- Contact information: Clara Wegenast <clara.wegenast@un.org>

Project 2: Artificial Intelligence tool for valuing the contributions of nature (ARIES for SEEA)

- **Project Description:** The project aims to accelerate implementation of the new ground-breaking standard for valuing the contributions of nature that was adopted by the UN Statistical Commission in March 2021, the System of Environmental-Economic Accounting (SEEA) Ecosystem Accounting.
Artificial Intelligence for Environment & Sustainability ([ARIES](#)), developed by researchers at the Basque Centre for Climate Change ([BC3](#)), is an integrated, open-source modelling platform for environmental sustainability, where researchers from across the globe can add their own data and models to web-based repositories.
Using ARIES technology, the ARIES for SEEA Explorer application allows users anywhere in the world to produce rapid, standardized, scalable and customizable ecosystem accounts for their area of interest that are consistent with the SEEA Ecosystem Accounting framework. ARIES for SEEA is available on the [UN Global Platform](#), a cloud-service platform supporting international collaboration in the development of official statistics using new data sources and innovative methods.
The ARIES for SEEA platform is currently being piloted in Botswana, Ghana, Uganda, Rwanda, Senegal and South Africa, following a [workshop in Kigali in July 2022](#).
- **Project Type/Output:** Software tool
- **Project Status:** Ongoing
- **Project Start Year:** 2019
- **Project End Year:** Ongoing
- **Project Domain:** Environment
- **Data Source:** freely available global remote-sensing derived data
- **Data Publicly available:** Yes
- **Technology/Platform:** ARIES technology; semantics and machine reasoning to automate data and model integration
- **Related Sustainable Development Goals (SDGs):** SDG 6 – Clean Water and Sanitation; SDG 13 – Climate Action; SDG 14 – Life Below Water; SDG 15 – Life on Land
- **Partnership(s)/Collaborator(s):**
 - The ARIES for SEEA Explorer was developed by the Basque Center for Climate Change (BC3) under the EU-funded Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project, which is jointly implemented by the Statistics Division of the UN Department of Economic and Social Affairs and UNEP.
- **Relevant Links and Multimedia:** <https://seea.un.org/content/aries-for-seea>
- **Lessons Learned:** Functionalities for the ARIES for SEEA explorer will be continuously improved and expanded
- **Contact information:** William Speller (william.speller@un.org)

Project 3: Adaptation to climate change in sub-Saharan African humanitarian situations

- **Project Description:** The project harnesses artificial intelligence to investigate past environmental change around selected humanitarian hotspots of displacement in Burundi, Chad and Sudan and future projections in the face of the climate crisis to inform climate change adaptation measures and anticipatory action for integration in humanitarian programming.
- **Entity Name:** UNEP/OCHA Joint Environment Unit
- **Project Type/Output:** Report; Academic paper; Seminar/meeting
- **Project Status:** Completed

- Project Start Year: Sept 2018
- Project End Year: April 2021
- Domain: Environment; Humanitarian
- Data Source: Population data, satellite imagery and IPCC climate projections
- Publicly Available Data : No
- Technology/Platform: GIS, MapX
- Related Sustainable Development Goals (SDGs): SDG 13 - Climate Action; SDG 17 - Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: WFP, UNHCR, UNICEF, OCHA
 - Government: Governments of Burundi, Chad and Sudan
 - Academia: University of Ghadarif, Sudan
- Relevant Links and Multimedia: <https://eecentre.org/2019/05/01/iki-project/>
- Lessons Learned: The project was implemented during the COVID-19 pandemic, with artificial intelligence proving an effective solution to continue delivering despite movement restrictions that hampered fieldwork and other project activities requiring presence
- Contact information: Margherita Fanchiotti (fanchiotti@un.org)

Project 4: Identifying the potential applications of Artificial Intelligence for Disaster Management.

- Project Description:

Background

Rapid advances in science and practices of Artificial Intelligence (AI), Robotics, Drones and Internet of Things (IoT) is expected to change all aspects of human society in the coming decades. Social scientists call this collective change the “Fourth Industrial Revolution” (4IR). There are many possibilities for introducing these technologies into the domain of disaster response, especially for environmental disaster response. In addition to helping mitigate the consequences of disasters, the technologies of the fourth industrial revolution also help prepare for them.

The proposed project is aimed at the current state of play on the applications of 4IR technologies for disaster management and identifies opportunities and partners to promote these technologies for environmental emergency response in the future.

For instance, in October 2020, during the AI for Good Summit organized by ITU, UNEP led a session on Artificial Intelligence for Natural Disaster Management. In addition to UNEP and ITU, the session had speakers from Google, Government of India and Monash University. With over 2000 registrations, it was the most well attended session at the AI for Good summit. This led ITU, UNEP and WMO to form a partnership to take this work forward.
- Scope of Work
 - Conduct a comprehensive literature review of the developments in the field of AI, Robotics and IoT to identify those with potential applications in Environmental Disaster Response
 - Identify technologies which has been developed and employed, even at pilot phase, for emergency response and prepare a technology forecast for its potential applications in environmental emergency response
 - Identify research and technology partners in academia, research laboratories and industries who are currently working on the area of applications of 4IR technologies and form a network for information exchange and potential collaborations

- Prepare training programme on the potential applications of 4IR technologies in environmental emergency response
- Department/Division: Ecosystems Division, Resilience to Disasters and Conflicts Global Support Branch.
- Project Type/Output: Report, Seminar/meeting, Conference
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: 2022
- Domain: Environment; Health; Telecommunications; Weather; Technology
- Data Source: We are currently using open source information and qualitative data.
- Data Publicly Available: Yes
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation and Infrastructure; SDG 13 – Climate Action; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: International Telecommunications Union (ITU), World Meteorological Organisation (WMO)
- Relevant Links and Multimedia:
 - Webinar series promotion

[UNEP Website](#)

[Other materials](#)

- Video recordings of Modern Technologies for Disaster Management Webinar Series
 - Robotics for Disaster management – [video](#)
 - Artificial Intelligence for Disaster Management – [video](#)
- Lesson Learned:
 - Future work:
 - Continue to identify research and technology partners in academia, research laboratories and industries who are currently working on the area of applications of 4IR technologies and form a network for information exchange and potential collaborations
 - Prepare training programme on the potential applications of 4IR technologies in environmental emergency response and deliver such trainings.
- Contact information: Muralee Thummarukudy (muralee.thummarukudy@un.org) and Paula Padrino Vilela (paula.padrinovilela1@un.org)

Project 5: Global Partnership on Marine Litter (GPML) Recommender

- Project Description: The Global Partnership on Marine Litter (GPML) Digital Platform is a multi-stakeholder platform that compiles different resources, connects stakeholders, and integrates data to guide action. Its vision is to be the go-to open source multistakeholder Platform that successfully connects and informs all actors working towards addressing the global problem of marine litter and plastic pollution.
The Platform allows stakeholders to get an overview of the different initiatives, find relevant resources and connect with other stakeholders in the field. To encourage and make it easier for stakeholders to connect, UNEP would like to implement a matchmaking

system that automatically matches stakeholders based on their interests, skills, and other relevant information.

Three levels of recommender systems are under consideration.

- Level 1 is a Content-based Recommender Engine. This will match an individual to an individual and an entity to an entity. For individuals, user profile data is used. For entities, the data on representative sector, country, geo-coverage type, entity, seeking, offerings, and bookmarks fields are used. For both, the Geo-coverage is used to further rank/order recommendations.
- Level 2 is a Content-based Recommender Engine Using Natural Language Processing. Apart from the predefined fields used in the Level 1 Recommender, this model uses the "About Yourself" and document uploads i.e., "Curriculum Vitae" features for matching stakeholders. These fields are natural language data; hence NLP techniques are beneficial for the design of the recommender engine. Matches are prioritized by geo-coverage and offerings of the stakeholders.
- Level 3 is a Content-Based Recommender Boosted by Collaborative Filtering (Interaction Data). This is a hybrid recommender model that treats collaborative information (interaction data) as additional feature data of the Level 1 or Level 2 recommenders. At this level, the K-means clustering algorithm is used to combine content-based and collaborative filters. In addition to profile data used by the Level 1/Level 2 recommenders, the system will take in interaction data prioritized as follows; Time spent on resources. Clicks on a link or resource, and Stakeholder browsing history.

With more users signing up to the platform, there will be more interaction data being recorded and stored. The Recommender will not only perform Individual-Individual matching, but also incorporate Entity-Entity and Entity-Individual matching.

- Department/Division: Ecosystems Division
- Project Type/Output: Software tool
- Project Status: Development
- Project Start Year: 2021
- Project End Year: 2022
- Project Domain: Environment
- Data Source: User Profile Data + innovative data sources for the data hub
- User profile data is collected when individuals or entities sign up to the GPML Digital Platform.
- This data includes information such as what resources a user is offering and what they are seeking from other users on the GPML digital platform as well as their geo-coverage type if a user signs up as an entity.
- Publicly available data: No
- Technology/Platform:
 - Jupyter Notebook: The Jupyter Notebook App is a server-client application that allows editing and running notebook documents (documents produced by the Jupyter Notebook App, which contain both computer code (e.g., python) and rich text elements (paragraph, equations, figures, links, etc....)) via a web browser. The Jupyter Notebook App can be executed on a local desktop requiring no internet access (as described in this document) or can be installed on a remote server and accessed through the internet.
 - Python: Python is an interpreted high-level general-purpose programming language.
 - Natural Language Toolkit (NLTK): a suite of libraries and programs for symbolic and statistical natural language processing for English written in the Python programming language.

- Related Sustainable Development Goals (SDGs): SDG 6 – Clean Water and Sanitation; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 14 – Life Below Water; SDG 15 – Life on Land; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: United Nations Office of ICT
 - Civil Society: AKVO Foundation
- Relevant Links and Multimedia:
 - Digital Platform: <https://digital.gpmarinelitter.org/about-us>
 - GPML: <https://www.gpmarinelitter.org/>
 - LinkedIn: <https://www.linkedin.com/company/global-partnership-on-marine-litter/>
 - Youtube: <https://www.youtube.com/channel/UCoWxFwDeoD4c9GoXzFdm9Bg>
 - <https://digital.gpmarinelitter.org/GPML-One-pager-19.08i.pdf>
- Lesson Learned: The GPML Recommender project has just started, lessons learned yet to be obtained.
- Contact Information: Heidi Savelli-Soderberg (heidi.savelli@un.org)

Project 6: Using Machine Learning to Make Government Spending Greener

- Project Description: The project seeks to show how machine learning (ML) models can help policy makers and researchers design data-driven policies that most efficiently and effectively allocate scarce government resources at home and abroad to maximize inclusive and sustainable prosperity and development.
 For policy- and decision-makers in many countries, one of the key impediments to designing well-targeted green transition policies is a lack of data and intelligence on the causal chains from a policy to its impact on society, the economy, and the environment. It is difficult to manage and prioritize green spending if you can't measure its effects.
 Properly trained machine learning (ML) models can enable rapid, quantitative predictions of policy impacts.
 This exploratory research venture between the UN Environment Program (UNEP) and UNCTAD showcases how machine learning has the potential to transform the measurement of policy impacts on Sustainable Development Goals (SDGs), Nationally Determined Contributions (NDCs) and National Biodiversity Strategies and Action Plans (NBSAPs) and enable targeted and efficient decision making for underpinning green and inclusive transitions.
 Illustrative models and analyses were created for 6 different countries: Zambia, Haiti, DRC, Solomon Islands, Liberia, Madagascar
- Project Type/Output: Report; Software tool
- Project Status: Ongoing
- Project Domain: Environment
- Data Source: Data features are collected from: [The ODA by sector](#), [Aid activities targeting Global Environmental Objectives](#), and [The Global Forest Watch](#)
- Publicly available data: Yes
- Technology/Platform: Trained and evaluated five different types of ML models: Artificial Neural Networks (ANNs), Long Short-Term Memory Networks (LSTMs), Gradient Boost Models (GBMs), Ordinary Least Squares Regression (OLS) models, and Random Forest (RF) models.
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 12 – Responsible

Consumption and Production; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 17 – Partnership for the Goals

- Partnership(s)/Collaborator(s) :
 - UN Partners: UN Environment Program (UNEP) and UNCTAD
- Relevant Links and Multimedia: <https://greenfiscalspolicy.org/blog/using-machine-learning-to-make-government-spending-greener/>
- Lesson Learned: A more comprehensive pilot study in collaboration with a national government using historical budget data would serve as a valuable next step in exploring this innovative method of transforming public finance decision-making.
- Contact Information: Himanshu Sharma (himanshu.sharma@un.org)

Project 7: SDG-meter

- Project Description: Textual data (policies, project reports, speeches, academic papers, news) that can provide insights on progress, obstacles, and opportunities on SDGs is available digitally. However, such data is not mapped nor scored according to the 17 Goals or its 169 targets. Valuable knowledge remains siloed with overall progress difficult to capture and made known. UNEP's ICT Unit of the Economy and Industry Division has been developing a ML/NLP tool since mid-2020 to identify and score concepts. This digital good, named "SDG-meter", is already able to identify and score the relevance of the 17 SDGs within any text, with similar accuracy to a human expert.

The SDG-Meter, a web platform based on one of the most sophisticated deep learning - natural language processing algorithms (BERT), can analyze any text to rate its relation to each of the 17 SDGs .

- Department/Division Economy Division, ICT Unit
- Project Type/Output: Web application
- Project Status: In progress
- Project Start Year: 2020
- Project End Year: ongoing
- Data Source: Textual data, in English, with two entries: texts from IISD website (limited to a maximum of 512 words) + associated labels (SDGs) as chosen by experts.
- In total, the database contains 2242 labeled texts (1247 from "News", 677 from "Guest Article" and 318 from "Policy Brief")
- Publicly available data: Yes
- Technology/Platform: BERT (Bidirectional Encoder Representations from Transformers), PyTorch, Python, jupyter Notebook.
- Project Updates:
 - Current work focuses on the search for an algorithm that is just as powerful as BERT but has the ability to analyze texts without word limitations. To do so, we are in the process of forming a consortium of experts around the problem of automatic classification of SDGs in order to acquire more information on the latest advances in the field. Moreover, via the chair established with the engineering school ISEP, we had the opportunity to realize a hackathon allowing to gather engineering students around our problem of word limitations. The study and the continuation of the various proposed solutions are in progress.
- Related Sustainable Development Goals (SDGs): All the SDGs
- Partnership(s)/Collaborator(s):
 - Academia: ISEP (Institut supérieur d'électronique de Paris)
- Relevant Links and Multimedia: Pilot - <http://62.160.8.100>

- Lesson Learned:
 - Challenges:
 - Limitation of the size of the text to process with the Google BERT algorithm (512 words or 2 pages)
 - Future work:
 - Experiment new deep learning algorithm in order to avoid input text length limitation
 - The tool can be further developed to analyze texts in bulk, from web databases, and provide insights from collections of texts. Ideally this can be included in different CMS as a plugin/module, streamlining the process.
- Contact Information: Robert Rodriguez (robert.rodriquez@un.org), Jade Guisiano (jade.guisiano@etu.sorbonne-universite.fr) and Jonathas De Mello (Jonathas.demello@un.org)

Project 8: Predictive analytics to support governments in transforming food systems (TEEBAgriFood)

- Project Description: This project catalyzes the use of predictive analytical tools to support governments in transforming food systems faster, better and at a greater scale than before.
 Predictive analytics and scenario modeling allow decision makers to compare future policy intervention options in the food system, illuminating the full impacts of a policy decision on natural, social, human and produced capital. This enables strategic foresight and anticipatory decision-making that values instead of discounts the future.
 Modeling techniques and tools are increasingly becoming more efficient through machine learning and the use of Earth Observations. Models applied for such exercise can range from 'snapshot' biophysical ecosystem service models (such as InVEST) up to the modeling of dynamic biophysical and socio-economic systems including dynamic relationships between conflicting or compounding government policies (for example agriculture subsidies and environmental regulations).
 Applications are initiated in Brazil, China, India, Indonesia, Mexico, Thailand, Malaysia, Colombia, Kenya, Tanzania, Thailand and Mexico.
- Project Type/Output: Report; Policy Framework
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2023
- Project Domain: Agriculture
- Data Source: freely available global remote-sensing derived data; national and subnational government data; biophysical data at the watershed level
- Publicly available data: Yes
- Contact Information: Salman Hussain (salman.hussain@un.org), Tomas Declercq (declercq2@un.org)

Project 9: UNEP International Methane Emissions Observatory (IMEO)

IMEO's Methane Alert and Response System (MARS) is the first global satellite detection and notification system providing actionable data on very large methane emissions around the world. Using over a dozen satellite instruments, coupled with scientific expertise and advanced

AI, UNEP's IMEO notifies governments and companies of emissions to enable climate mitigation.

[Read a success story here.](#)

- Project Type/Output: Monitoring platform
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: N/A
- Project Domain: Climate change / Methane
- Data Source: freely available global remote-sensing derived data; national and subnational government and site data;
- Publicly available data: Yes
- Contact Information: Manfredi Caltagirone <manfredi.caltagirone@un.org>

[Public Eye on Methane data platform with MARS](#)

[More on MARS](#)

Project 10: Freshwater Ecosystems Explorer

Uses machine learning to identify areas of surface water from satellite imagery at a global level. It produces an annual dataset of surface water extent as a formal reporting indicator for SDG 6.6.1. This is an important precedent as it is the only globally derived satellite-based indicator in the SDG framework that member states can use in their national reporting. SDG 6.6.1 platform is a partnership between UNEP, Google Earth Engine and the EU Joint Research Center.

- Project Type/Output: Monitoring platform
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: N/A
- Project Domain: Freshwater ecosystems
- Data Source: freely available global remote-sensing derived data; national and subnational government data; biophysical data at the watershed level
- Publicly available data: Yes
- Contact Information: Stuart Crane <stuart.crane@un.org>

Project 11: Counter Measures II Project

This innovative project has been working with communities along Asian rivers including the Mekong and Ganges Rivers to map where and how plastic waste is entering the waterways. Citizen science is a key part of this effort, alongside drone imaging, machine learning and GIS algorithms. Using the project app, communities can identify plastic waste hotspots to help find how plastic is leaking into rivers.

- Project Type/Output: Monitoring platform
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: N/A
- Project Domain: Plastic waste
- Data Source: freely available global remote-sensing derived data; national and subnational government data; biophysical data at the watershed level
- Publicly available data: Yes

- Contact Information: Kakuko Nagatani-Yoshida <nagatani-yoshida@un.org>

Project 12: Environment-GPT

A refined large language model for information aggregation and generation of high-integrity scientific information on the environment. EnvironmentGPT will be trained using authoritative data sources including from the IPCC, IPBES, GEO, and scientific papers and reports about the climate and interconnected topics such as ecosystems, biodiversity, air quality, and energy. The vision for EnvironmentGPT is to develop a digital public good that will distil the world's environmental science to support the work of a) Environmental managers/practitioners and decision-makers in government and business to easily access and use authoritative science; b) Scientists and specialists to deliver environmental assessments more rapidly and track progress against environmental commitments more easily.

- Project Type/Output: chatbot platform
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: N/A
- Project Domain: environmental knowledge
- Data Source: UNEP vetted environmental science
- Publicly available data: Yes
- Contact Information: Clara Wegenast <clara.wegenast@un.org>

Project 13: Sustainable Consumption and Production Hotspot Analysis Tool (SCP-HAT)

SCP-HAT is deploying AI to enable the tracing of environmental pressures and impacts along the supply chain of the goods and services consumed within a given country. It can identify the hot spot areas of unsustainable production and consumption in order to support setting priorities in national sustainable product and consumption policies and transition plans. The tool was jointly developed by the Life Cycle Initiative, the One Planet network and the International Resource Panel, in collaboration with the University of Vienna of Economics and Business, the CSIRO and the University of Sydney. The current version of SCP-HAT uses relatively simple predictive text techniques to derive automated reports from the information within the tool; more sophisticated AI could be used to help the user navigate / extract further information.

- Project Type/Output: Monitoring platform
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: N/A
- Project Domain: sustainable consumption
- Data Source: GLORIA database
- Publicly available data: Yes
- Contact Information: Llorenç Mila I Canals <llorenç.milaicanals@un.org>

Project 14: Leveraging Artificial Intelligence for mainstreaming country-specific information on MEAs

The UNEP Law Division's InforMEA and DaRT teams have joined forces in exploring AI solutions for mainstreaming country-specific information on MEAs. The envisioned tool would provide a

filterable summary of the MEAs that a country has ratified or signed, organised by environmental theme (e.g. pollution, biodiversity, chemicals), would enable users to quickly identify the most relevant agreements and an embedded AI feature could generate brief, tailored summaries of national priorities and implementation status, offering useful entry points into these MEAs and guiding MEA focal points and UN Country Teams toward areas that warrant further exploration.

- Project Type/Output: AI application producing summaries on the status of MEA implementation
- Project Status: Proof of concept / prototype
- Project Start Year: 2024
- Project End Year: N/A
- Project Domain: Environmental Law and Governance
- Data Source: MEA Treaty texts and Documents, MEA National Reports
- Publicly available data: Yes
- Contact Information:
 - Angela Kariuki (InforMEA Team, Law Division) <angela.kariuki@un.org>
 - Raluca Cruceru (InforMEA Team, Law Division) <raluca.cruceru@un.org>
 - Emilie Clémence Vauchel (DaRT Team, Law Division) <emilie.vauchel@un.org>

2. Related Sustainable Development Goals

All the SDGs

3. Relevant links

<https://www.unep.org/>

Contact Information

Saiful Ridwan, Chief, Enterprise Solutions, Corporate Services Division, UN Environment Programme (saiful.ridwan@un.org)

Sally Radwan, Chief Digital Officer, UN Environment Programme, (golestan.radwan@un.org)

United Nations Educational, Scientific and Cultural Organization



1. Description of Activities on AI

Project 1: Defending Human Rights in an Age of Artificial Intelligence

- Project Description: UNESCO and UNITAR jointly launched a new microlearning course on AI and Human Rights for youths aged 16 to 24. The course breaks down complex concepts about AI through activities built around our daily technology interactions. Through interactive exercises, users will identify and engage with practical examples of uses of AI, which are problematic from a human rights perspective. In turn, they learn about the implications of AI for freedom of expression, the right to privacy and the right to equality. The course is translated into 20 languages including Bosnian, Catalan, Polish, Italian etc.
The course is originally available in English, French, Spanish, Russian and Chinese.
- Department/Division: Sector for Communication and Information
- Project Type/Output: Other: Online course
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2023
- Project Update:
- Project Domain: Education; Human Rights (Freedom of Expression, Right to Privacy, Right to Equality); Artificial Intelligence
- Related Sustainable Development Goals SDGs: SDG 4 – Quality Education, SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UNITAR (Co-partner)
 - SALTO (co-partner)
- Links and Multimedia:
 - <https://en.unesco.org/news/join-unesco-and-unitars-ai-and-human-rights-course>
 - <https://www.edapp.com/course/defending-human-rights-in-the-age-of-artificial-intelligence-2>
- Contact information: Prateek Sibal (p.sibal@unesco.org)

Project 2: The UNESCO Programme on AI and the Rule of Law

- Project Description: The UNESCO Programme on AI and the Rule of Law equips justice sector professionals with knowledge on the applications and the ethics of AI in justice. Based on the findings of the AI Needs Assessment Survey in Africa and another survey of over 1200 judicial operators in 100 countries, UNESCO has launched a global MOOC on AI and the Rule of Law to strengthen capacities of judicial operators in the use of AI in the administration of justice, while addressing the human rights and legal implications of

the use of AI with respect to bias, discrimination, privacy, freedom of expression among others. Over 5900 judicial operators from 142 countries have enrolled in the course until 2023. Additionally, the Programme launched a Global Toolkit on AI and the Rule for the Justice Sector, which provides judicial actors with the knowledge and tools necessary to understand the benefits and risks of AI in their work. It will assist judicial actors in mitigating the potential human rights risks of AI by providing relevant guidance on international human rights, laws, principles, rules and emerging jurisprudence that underpins the ethical use of AI.

The project continues to support capacity building for judicial operators through online and in person trainings on AI and the Rule of Law.

- Department/Division: Sector for Communication and Information
- Project Type/Output: Capacity Building through - Massive Open Online Course (MOOC), online and in person trainings and webinars
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: 2025
- Project updates:
 - Follow up trainings are being held in-person and online to further build capacities on AI and the Rule of Law, reaching over 140 judicial operators from Qatar, The Gambia, Congo- Brazzaville, Nepal, Ghana, Togo and Costa Rica. The latter comprised a regional training of all Judges from the Inter-American Court of Human Rights.
 - Two interregional trainings conducted in partnership with SADA reaching over 350 judicial operators from 15 countries in Africa.
 - Webinar series on Artificial Intelligence and the Rule of Law
 - Collaborating with the Future Society in hosting the 5th edition of the Athens Roundtable of AI and the Rule of Law.
 - The programme has made public consultations and launched the UNESCO draft [Guidelines for the Use of AI in the Judiciary](#). These guidelines were adopted by the Judiciary of Colombia.
- Project Domain: Artificial Intelligence
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education, SDG 16 - Peace, Justice, and Strong Institutions; SDG 17 - Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - CETIC.br
 - IEEE
 - The Future Society
 - National Judicial College
- Links and Multimedia: <https://www.unesco.org/en/artificial-intelligence/rule-law?hub=32618>, - <https://www.unesco.org/es/articles/analizar-la-inteligencia-artificial-desde-una-perspectiva-del-estado-de-derecho?hub=70235>, **Brochure:** <https://unesdoc.unesco.org/ark:/48223/pf0000390708>.
- Contact information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org), Guilherme Canela De Souza Godoi (g.godoi@unesco.org), Kamel El Hilali (k.el-hilali@unesco.org).

Project 3: Multistakeholder AI Development - 10 building blocks for inclusive policy design

- Project Description: With the Innovation for Policy Foundation (i4Policy), UNESCO facilitated community consultations and developed a report to advise governments on

inclusive and multi-stakeholder-driven processes for developing AI policies. Through an iterative series of multi-stakeholder learning and co-creation workshops, i4Policy and UNESCO developed a report on Multistakeholder AI Development, including existing examples of inclusive national approaches to AI and Digital Policy Development.

In the report, UNESCO and i4Policy distill 10 essential lessons for policymakers to harness the collective intelligence of communities and ensure that the process of creating and implementing public policy is inclusive and multi-stakeholder driven.

It leverages AI and innovation community networks in developing countries to inform the development of global protocols on AI policy development process.

- Department/Division: Sector for Communication and Information
- Project Type/Output: Policy Framework/Seminar/meeting
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: 2022
- Project Updates: Mozfest 2022 (held in Mar 2022): Workshop on building a research agenda and community to foster Global South engagement in global AI and data governance
- Project Domain: Human Rights; Artificial Intelligence
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation and Infrastructure; SDG 10 - Reduced Inequality; SDG 13 - Climate Action; SDG 16 - Peace, Justice, And Strong Institutions; and SDG - 17 Partnership for the Goals
- Partnership(s)/Collaborator(s): Innovation for Policy Foundation (Co-partner)
- Links and Multimedia: <https://events.unesco.org/event/?id=4180394255&lang=1033>
- Contact information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 4: UNESCO's first graphic novel on Artificial Intelligence

- Project Description:
In the framework of UNESCO's work to harness emerging technology for sustainable development, this graphic novel for young adults explores the impact of Artificial Intelligence on humankind. The comic strip is designed to provide basic AI education to all, showcasing the opportunities and challenges of technology in regard to freedom of expression and human rights and ethics, along with other issues related to AI, including AI and Sustainable Development and AI Professions.
The publication goes beyond theoretical understanding of the topic and shows the everyday applications of AI, their origins, challenges and how these challenges can be addressed. Additionally, the publication will further elaborate AI in relation to the SDGs and UNESCO's ROAM principles.
In this original work, examples will respect geographical diversity and gender distribution by showing one story based in Asia, Africa, Oceania and South America. Half of these stories feature women as the main character. The screenwriters and graphic designers are from different world regions, ensuring inclusion.
The comic strip will be published in September 2022. It has also been translated into Kiswahili and Malagasy to enhance multilingualism in cyberspace especially in Africa, and is due to be launched on World Kiswahili Day (7 July) 2024.
- Project Type/Output: Graphic Novel
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2024
- Project Domain: Environment; Gender; Human Rights; Justice; Artificial Intelligence

- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education, SDG 5 – Gender Equality, SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - Katherine Evans (Writer and AI Expert)
 - Bimot Media (Illustration and Publication)
 - Sylvia Adongo (Kiswahili Translation)
- Links and Multimedia:
 - <https://www.unesco.org/en/articles/inside-ai-algorithmic-adventure>
 - <https://unesdoc.unesco.org/ark:/48223/pf0000382456>
- Contact information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 5: Globalpolicy.ai Portal

- Project Description: The platform provides policy and decision makers with data, research, use cases, and best practices in the field of AI policy and facilitates access to relevant AI-related resources from International Organizations. It serves as a platform that highlights cooperation between International Organizations and makes information readily available on one centralized portal related to AI Governance. Key partners include the Council of Europe, the European Commission, the European Union Agency for Fundamental Rights, the Inter-American Development Bank, the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN), and the World Bank Group.
- Department/Division: Sector for Communication and Information
- Project Type/Output: A neutral, authoritative portal where citizens and stakeholders can access up-to-date, accurate information on global AI policy initiatives.
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: Continuous
- Project Domain: Artificial Intelligence - Artificial Intelligence will disrupt/impact almost all industries and society.
- Technology/Platform: Wordpress
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation and Infrastructure; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UNESCO
 - Council of Europe
 - The European Commission
 - The European Union Agency for Fundamental Rights
 - Inter-American Development Bank
 - Organisation for Economic Co-operation and Development (OECD)
 - United Nations (UN)
 - World Bank Group
- Links and Multimedia:
 - <https://globalpolicy.ai/en/>
 - <https://www.facebook.com/unesco/videos/3005127219743840/>

- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 6: Missing Links in AI Governance

- Project Description: The publication will provide world leaders, policy-makers, and civil society members with perspectives that will be critical to face the immense task they're presented with: to ensure the development of AI reaches its full potential in accordance with democratic values and fundamental rights and freedoms. The magnitude of this challenge requires a collaborative effort that transcends disciplinary barriers and geographical borders. This publication brings together academics, civil society representatives, artists and innovators to help us shift the conversation from what we already know to what we have yet to render visible to ensure AI technologies leave no one behind.
- Department/Division : Sector for Communication and Information
- Project Type/Output: Academic journal
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: 2022
- Project updates:
 - Downloaded more than 3619 times and consulted 18991 times
- Project Domain: Artificial Intelligence – Artificial Intelligence will disrupt/impact almost all industries and society.
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, And Strong Institutions; SDG 17 Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - Academia: MILA – Quebec Artificial Intelligence Institute
- Contact information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 7: AI and Gender Equality: The Effects of AI in the Working Lives of Women

- Project Description: UNESCO, the Organisation for Economic Co-operation and Development (OECD), the Inter-American Development Bank (IADB) and Cambridge University have developed a joint report concerning AI's effects on women's working lives.
The report is intended to raise general awareness of the disruptions of AI during the workforce lifecycle from a gender perspective.
This descriptive publication is targeted broadly at the general public and decision-makers across sectors including public sectors, private sectors and academia, and provides policymakers with an introduction to issues regarding gender and AI, including applied use cases to consider in AI Programmes and Policy Development
It has been published in March 2022, in English, Spanish and French.
- Department/Division: Sector for Communication and Information
- Project Type/Output: Report
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2024

- Project update:
 - International Women's Day (8 Mar 2022): Launch of OECD-IDB Joint Publication on "The Effects of AI on the Working Lives of Women"
 - A new policy brief on gender bias in Large Language Models will be published in March 2024 with the International Research centre on AI (IRCAI), Slovenia
- Project Domain: Artificial Intelligence
- Technology/Platform: Report, on UNESCO web page
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 –Decent Work and Economic Growth; SDG 10 – Reduced Inequality; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UNESCO (Data Collection and Project Management)
 - Organisation for Economic Co-operation and Development (Data Collection and Project Management)
 - Inter-American Development Bank (Data Collection and Project Management)
 - The Minderoo Centre for Technology and Democracy, University of Cambridge
- Links and Multimedia:
 - <https://www.unesco.org/en/articles/what-are-effects-ai-working-lives-women-global-experts-weigh>
 - <https://unesdoc.unesco.org/ark:/48223/pf0000380861>
- Contact information: Cédric Wachholz (c.wachholz@unesco.org), Vanessa Dreier (v.dreier@unesco.org); Prateek Sibal (p.sibal@unesco.org)

Project 8: The UNESCO Programme on AI for the Public Sector

- Project Description: Launched in 2021, UNESCO's Programme on AI for the Public Sector aims to help governments develop institutional capacity for human rights-based digital transformation. The programme supports civil servants in designing transparent, efficient, and inclusive AI-powered public services. In 2022, UNESCO introduced its globally recognized Digital Competency Framework, published in Artificial Intelligence and Digital Transformation: Competencies for Civil Servants. This framework has been used to shape institutional digital transformation strategies in Nigeria and Rwanda, while endorsed by public institutions in the European Union and India. Overall, the programme has reached 50 countries. Upcoming initiatives include a Global Curriculum on AI for the Public Sector, Global MOOC on Digital Transformation, a Global MOOC on AI for the Public Sector, a Repository of AI Tools for the Public Sector, and institution capacity building training for civil servants at global, regional and national levels.
- Department/Division: Sector for Communication and Information
- Project Type/Output: Competency Framework on AI and Digital Transformation for the Public Sector, Repository of AI Tools for the Public Sector, Institutional Capacity Building, Network of Capacity Building Institutions for AI in the Public Sector, Massive Open Online Courses on AI and Digital Transformation for the Public Sector
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: TBD
- Project Updates:
- Project Domain: Artificial Intelligence
- Technology/Platform: Publication

- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation and Infrastructure; SDG10 – Reduced inequalities, SDG 16 – Peace, Justice, And Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UN Broadband Commission
 - UNESCO
 - Nokia
 - Open Knowledge Foundation
 - ITU Academy
- Links and Multimedia:
 - <https://www.unesco.org/en/digital-competency-framework>
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org), Gustavo Fonseca Ribeiro (g.fonseca-ribeiro@unesco.org)

Project 9: The Athens Roundtable

- Project Description: On 1-2 Dec 2022, the fourth edition of The Athens Roundtable will be co-hosted by UNESCO to advance and widen the global dialogue on the enforcement of AI policies and regulations, coordinated efforts toward AI standards and benchmarks, and the adoption of AI in alignment with human rights and democratic values.
The Athens Roundtable is an annual multi-stakeholder conference seeking to advance the sound development of policies, educational initiatives and evidence-based instruments, to enable the trustworthy adoption of AI in legal systems, the practice of law, and related regulatory compliance.
- Department/Division: Sector for Communication and Information
- Project Type/Output: Conference
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2025
- Project Domain: Artificial Intelligence – Artificial Intelligence will disrupt/impact almost all industries and society.
- Technology/Platform: Hybrid format
- Related Sustainable Development Goals (SDGs): SDG10 – Reduced inequalities, SDG 16 – Peace, Justice, And Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - The Future Society
 - European Parliament
 - IEEE
 - Council of Europe
- Links and Multimedia:
 - <https://www.aiathens.org/dialogue/fourth-edition>
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 10: AI and the Futures of Learning project (based on the Teaching Artificial Intelligence at School project)

- **Project Description:** To support Member States to harness AI for education, with equity and inclusion as guiding principles, UNESCO initiated this project on effective use of AI in the future of learning underpinned by three enablers: (1) needs-driven AI-enabled futures of learning: the project will reveal emerging use cases for leveraging AI to address fundamental needs of learning and provide recommendation on planning; (2) a guidance on ethical principles: the project will develop ethical principles for the design, deployment, and applications of AI in learning and education; and (3) AI competencies: the project will develop a guiding framework on AI competencies needed by all learners to live and learn with AI.

The Project will address both the technological and the human-oriented dimensions of AI and the futures of learning across three sub-domains as identified in [UNESCO's AI and Education: Guidance for policy-makers](#): learning with AI, learning about AI, and learning to work and live with AI.

- **Department/Division:** Sector for Education
- **Project Type/Output:** Report/seminar/meeting:
 - report on AI and the Future of Learning
 - Guidance for generative AI in education and research
 - AI competency framework for teachers and AI Competency framework for school students
- **Project Status:** Ongoing
- **Project Start Year:** 2021
- **Project End Year:** 2024
- **Project updates:**
 - The launch event of the AI and the Futures of Learning project was organized in September 2021 to present the main activities and elicit comments, map out ongoing initiatives, and build partnerships around the project.
 - Since the launch of the project, UNESCO has carried out two surveys on government-approved AI curricula targeting UNESCO Member States and non-governmental organizations that provide AI curricula. The findings indicate that despite the wide demand for AI-related competencies, only 11 countries have endorsed AI curricula to date in their K-12 education systems, with a further 5 countries currently developing AI curricula.
 - A survey on the governmental use of AI in education was completed in early 2023, covering assessments of Member States' setting up of regulations on ethics of AI and its use in education, strategies for AI in education, and national programmes on developing AI competencies for teachers. The results of the survey informed the AI Competency Framework for teachers. A series of extensive consultations with experts, policy-makers, teachers, youth and other stakeholders were organized to inform the AI competency frameworks.
 - In May 2023, UNESCO organized the first online ministerial roundtable on GenAI gathering over 40 Ministers for an in-depth discussion on the implications and potential of GenAI in ED.
 - UNESCO has mobilized and coordinated groups of experts working on the development of the two AI competency frameworks. The two drafts were presented during the first edition of Digital Learning Week (Sept 2023). A 3-day working group meeting took place at UNESCO HQ (Nov 2023) to validate the structure of the two frameworks. The two competency frameworks are in the process of being finalized and will be released in June 2024.

- The Guidance for Generative AI in Education and Research was released and launched during Digital Learning Week, in September 2023. This is the first-ever global guidance on generative AI (GenAI) in ED. The guidance is undergoing translation into Arabic, Chinese, French, Portuguese, Romanian, Russian and Spanish.
- A call for contribution to the definition of Algorithm Literacy and Data Literacy was launched in June 2023. The selected think-pieces will feed inputs for the development of AI Competency Frameworks for students and teachers.
- UNESCO Digital Learning Week "Steering technology for education" took place in September 2023: the topics addressed, on public digital learning platforms and GenAI, have informed the work related to the three strands of the initiative. 17 ministers and high-level representatives from 16 countries took part in the event
- Project Domain: Education
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education
- Partnership(s)/Collaborator(s): Private Sector- This project is financially supported by TAL Education Group and is open to a multi-stakeholder approach
- Links and Multimedia:
 - <https://en.unesco.org/themes/ict-education/ai-futures-education;https://en.unesco.org/artificial-intelligence/education>
 - <https://en.unesco.org/artificial-intelligence/education>
 - <https://www.unesco.org/en/digital-education/ai-future-learning/competency-frameworks>
 - <https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research>
- Contact information: Dr. Fengchun Miao (f.miao@unesco.org)

Project 11 Guiding the development of policies on AI and education

- Project Description: Based on UNESCO's publication *AI and education: guidance for policy-makers*, the project provides guidance and support with the development of national policies on AI and education. The publication is made available in 7 languages and offers guidance for policy-makers on how best to leverage the opportunities and address the risks, presented by the growing connection between AI and education. It starts with the essentials of AI, provides a detailed analysis of the emerging trends and implications of AI for teaching and learning and introduces the challenges of harnessing AI to achieve SDG 4 and offers concrete actionable recommendations for policy-makers to plan policies and programmes for local contexts. The project also includes country support and the organization of the awareness raising and knowledge sharing events, such as launch events of the policy guidance or international forums on AI and education. Moreover, policy examples, promising initiatives and best practices stemming from the forum discussions are documented in the form of synthesis reports.
- Project Type/Output: Report/Policy Framework/Capacity building activities based on the Guidance are under development.
- Project Status: Ongoing
- Project Start Year: 2019
- Project End Year: TBD
- Project updates: The Guidance for policy makers has been published in March 2021, it is in 6 UN languages and Korean
- Online launch events, which included high-level ministry officials, were organized in the LAC region and the Gulf States with the support of relevant Field Offices and UNESCO Category 2 centres in the first half of 2022. These events serve as the first step in a series of activities to support the development of national policies on AI and education in

concerned regions and beyond. The launch of the French version is being planned for September 2022.

- Over the past four years, the following events were organized:
 - International Conference on Artificial Intelligence and Education (May 2019) resulting in the adoption of the Beijing Consensus
 - International Forum on AI and the Futures of Education (December 2020)
 - International Forum on AI and Education: Ensuring AI as a Common Good to Transform Education (December 2021)
 - International Forum on AI and Education: Steering AI to Empower Teachers and Transform Teaching (December 2022)
- Project Domain: Education
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education
- Partnership(s)/Collaborator(s):
 - Private Sector- Weidong Group (financial support)
- Links and Multimedia:
 - <https://unesdoc.unesco.org/ark:/48223/pf0000376709>
 - <https://unesdoc.unesco.org/ark:/48223/pf0000376709>
 - <https://en.unesco.org/artificial-intelligence/education>
- Contact information: Dr. Fengchun Miao (f.miao@unesco.org)

Project 12 Developing AI competencies for school students

- Project Description: Based on Teaching Artificial Intelligence at School project, the main objectives are to develop a reference framework on AI competencies to raise awareness and build capacities related to developing knowledge, skills and values needed to live and work in the AI era. The project will further facilitate the planning of national or institutional AI curricula for school education of fostering the competencies of both girls and boys. A Report on Mapping of K-12 AI curricula based on the two surveys carried out by UNESCO will inform the development of a guiding framework. Also, the project involves capacity building activities and organization of workshops with countries based on the tools and guidance developed by UNESCO. The project has been aligned with the activities of the AI and the futures of learning project.
- Department/Division: Sector for Education
- Project Type/Output: Seminar/meeting
- Development of an AI skills framework for schools; Workshops to support the integration of AI training into national or institutional school curriculum in a selected number of countries.
- Project Status: Ongoing
- Project Start Year: 2019
- Project End Year: TBD
- Project updates:
 - In February 2022, UNESCO published a Report on Mapping of K-12 AI curricula based on two surveys on government-approved AI curricula targeting UNESCO Member States and non-governmental organizations that provide AI curricula. The findings indicate that despite the wide demand for AI-related competencies, only 11 countries have endorsed AI curricula to date in their K-12 education systems, with a further 4 countries currently developing AI curricula.

- In May 2022, based on the above mentioned report, UNESCO with the Ministry of Education of Oman, RCEP, UNESCO Doha office and Ericsson organized an online workshop to develop the capacities of more than 25 national curriculum developers in integrating appropriate AI competencies (including knowledge, skills and values relating to AI) into the national K-12 curriculum and/or institutional programmes.
- In collaboration with Lebanon's Ministry of Education and the UNESCO Beirut office, UNESCO conducted a 3-day AI and coding training for 20 teachers and 12 Ministry of Education representatives, from 10 to 12 May 2023, in Beirut.
- UNESCO has mobilized a group of experts working on the development of the AI competency framework for school students. The framework is in the process of being finalized and will be released in June 2024.
- Project Domain: Education
- Data Source: What the data contains, such as demographic data, satellite data
- Related Sustainable Development Goals (SDGs): SDG 4 Quality Education
- Partnership(s)/Collaborator(s): Private Sector: This project is being developed in partnership with Ericsson and is open to a multi-stakeholder approach.
- Links and Multimedia:
 - <https://en.unesco.org/artificial-intelligence/education>
 - <https://en.unesco.org/artificial-intelligence/education>
- Contact information : Dr. Fengchun Miao (f.miao@unesco.org)

Project 13: Flood forecasting for next 24 hours using AI

- Project description: Through the project "Enhancing Climate Services for Improved Water Resources Management in Vulnerable Regions to Climate Change: Case Studies from Africa and Latin America and the Caribbean" (ClimWaR) activities have been developed on regional and national flood and drought monitoring platforms for the improvement of relevant information on climate and water for decision-making, while making the information actionable, locally relevant and timely.
The implementation of the platforms has been delivered by Princeton Climate Institute and covers the continental area of Africa, and the national-level of Cameroon, Mozambique, Zimbabwe, South Africa, Africa (at regional level) Namibia, Malawi. The platform is based on a set of ground, satellite and modelled datasets, which are combined to provide a consistent picture of hydrological conditions close to real-time, as well as forecasts out to 7-days for floods and out to 6 months for drought. The system is updated every day, about 1-2 days behind real-time and it runs a hydrological model with a 5 km resolution. The system integrates an AI-driven flood forecast at 30m resolution, indicating the expected area to be flooded in the next 24-36 hours.
- Department/Division: Natural Sciences Sector
- Project Type/Output: Other: Software tool/Application
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2023
- Project Domain: Disaster risk reduction; Artificial Intelligence
- Related Sustainable Development Goals SDGs: SDG 11 – sustainable cities and communities (disaster risk reduction) SDG 13 – climate action
- Partnership(s)/Collaborator(s): Princeton Climate Institute, University of Montana
- Links and Multimedia: <https://en.unesco.org/disaster-risk-reduction/ews-water>
- Contact information: Koen Verbist (k.verbist@unesco.org)

Project 14: STEM education

- Project description: Development of the Robotics and Artificial intelligence program to focus on designing codes, algorithms, linkage between hardware and software and 3D printing to allow teachers, trainers, and students to create machines and AI applications in MS especially in SIDS and Africa.

In Rwanda, about 120 students, teachers and UNESCO Trainers have convened in FAWE Girls School/Gisozi for STEM Mentoring Boot Camp on Robotics, Artificial Intelligence, 3D Printing and Microscience. UNESCO in partnership with Rwanda National Commission for UNESCO (CNRU), Ministry of Education, Ministry of ICT & Innovation, Rwanda Basic Education Board, Rwanda TVET Board, FAWE Rwanda and the Creativity Lab have organized the event.

Training on Artificial Intelligence Technology for University Teachers In collaboration with Huawei Kenya, a series of training activities will be organized from 11-29th July on AI for teachers in Eastern Africa. The objective of this course is to provide the most fundamental knowledge to the University / College teachers so that they can understand what the A.I is. So, the teachers can introduce AI to their students during their course of teaching.

Dominican Republic, The 4 days workshop took place from 15 to 18 March, 2022. 57 teachers from around the country participated in the training workshop. 15 of them have participated in phase 1 workshop, dedicated to Artificial intelligence and robotics that was held Virtually in July 2021. This was the first face-to-face workshops after the pandemic period. The teachers were exposed to a number of open source softwares such as Cura, Teachable machines etc.

- Department/Division: Natural Sciences Sector
- Project Type/Output: Other: training
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2022
- Project Domain: Disaster risk reduction; Artificial Intelligence
- Related Sustainable Development Goals SDGs: SDG 4.- quality education
- Partnership(s)/Collaborator(s): Rwanda National Commission for UNESCO (CNRU), Ministry of Education, Ministry of ICT & Innovation, Rwanda Basic Education Board, Rwanda TVET Board, FAWE Rwanda and the Creativity Lab,
- Links and Multimedia:
- Contact information: Imteyaz Khodabux (i.khodabux@unesco.org)

Project 15: Decision Making support tool using AI for school safety

- Project Description: Exposure of school infrastructure to multi-hazards poses significant risk to vulnerable populations of students and their education process. In response to this objective, UNESCO Chair in Disaster Risk Reduction and Resilience Engineering developed a probabilistic resilience framework, combining two methodologies which exploit Machine Learning technology, Agent-based (AB) and Bayesian Network (BN) approaches, for system performance analysis. The framework aims to estimate the disruption to education due to multiple hazards to quantify its resilience, considering physical, functional, and social vulnerability aspects of the infrastructure. The resilience of the system depends on the interdependencies of system variables from these qualitative and quantitative aspects.
- Department/Division: Natural Sciences Sector
- Project Type/Output: Other: Software tool/Application
- Project Status: Ongoing
- Project Start Year: 2022

- Project End Year: 2023
- Project Domain: Disaster risk reduction; Artificial Intelligence
- Related Sustainable Development Goals (SDGs): SDG 11 SDG 11 - sustainable cities and communities (disaster risk reduction)
- Partnership(s)/Collaborator(s): University College London
- Links and Multimedia:
- Contact information: Soichiro Yasukawa (s.yasukawa@unesco.org)

Project 16: Harnessing the power of AI to promote equal opportunities in the digital world (McGovern I)

- **Project Description:** This project assists four countries (Chile, Morocco, Senegal, Brazil) to translate the Recommendation into national institutional and regulatory frameworks and to build a national consensus on the shared vision for AI. At the end of this project, these countries will have national AI strategies developed from a bottom-up approach and their capacities enhanced based on an ethical framework. A meta-strategy will be developed for the global roll-out, based on the evidence and experience gained by the four pilots.
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2024
- **Project Domain:** Environment, Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence will disrupt/impact almost all industries and society. In particular, the Recommendation proposes concrete, impact-oriented policy actions in 11 areas: Ethical Impact Assessment; Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Gender; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being
- **Related Sustainable Development Goals (SDGs):** SDG 3 - Good Health and Well-being; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation and Infrastructure; SDG 10 - Reduced Inequality; SDG 13 - Climate Action; SDG 16 - Peace, Justice, and Strong Institutions
- **Partnership:** Patrick J. McGovern Foundation, AIEB Network, key government entities, local think tanks, academic experts, civil society
- **Project Website** (links): <https://en.unesco.org/artificial-intelligence/ethics>
- **Contact Information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 17: Supporting Member States in Implementing UNESCO's Recommendation on the Ethics of AI through Innovative Tools

UNESCO aims to advance the global implementation of the Recommendation on the Ethics of AI by assisting countries in establishing robust national institutions for effective AI governance. Over 70 UNESCO Member States have joined the Group of Friends, expressing interest in technical assistance for building national institutions addressing AI technologies. The project addresses these needs and will facilitate implementation of the Recommendation in the form of support for developing and implementing national policy, legislation, regulation and other governance mechanisms.

To build the capacities of Member States and support them in translating the Recommendation on the Ethics of AI into policies and practices at the national level, UNESCO has developed the following tools and mechanisms as mandated by the Recommendation:

- > **Readiness Assessment Methodology (RAM)** to help governments determine how prepared the country is for developing, adopting and using AI systems, by analysing different dimensions of readiness, including legal, social, cultural, economic, scientific, educational, technological and infrastructural.
 - > **Ethical Impact Assessment (EIA)** to enable countries to evaluate AI technologies based on the standards of UNESCO Recommendation, underscoring the benefits and risks of a specific system to individuals, society and the environment.
 - > The tools should identify impacts on human rights and fundamental freedoms, in particular but not limited to the rights of vulnerable groups, poverty, digital divide, labour rights, the environment and ecosystems, and ethical and social implications.
- **Department/Division:** Sector for Social and Human Sciences
 - **Project Type/Output:** development of tools
 - Project Status: ongoing
 - Project Start Year: January 2022
 - Project End Year: open-ended
 - **Project updates:** The tools are being piloted and implemented in over 50 countries around the world.
 - **Project Domain:** Environment, Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence will disrupt/impact almost all industries and society. In particular, the Recommendation proposes concrete, impact-oriented policy actions in 11 areas: Ethical Impact Assessment; Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Gender; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being
 - **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
 - Partnership(s)/Collaborator(s):
 - Government: European Commission – DG INTPA, 70+ Member States of the Group of Friends of the Recommendation (an op-ended alliance of countries spearheading the implementation of the Recommendation). Particular governmental partners include Japan, South Africa, Namibia, Mozambique, and Zimbabwe.
 - Foundations: Patrick J. McGovern Foundation
 - **Links and Multimedia:** <https://en.unesco.org/artificial-intelligence/ethics>
 - **Contact information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 18: Supervising AI by Competent Authorities

Project Description: UNESCO currently works with the Dutch Digital Infrastructure Authority on a project funded by European Commission DG Reform on the supervision of AI by competent authorities. The project will support the challenge confronting European competent authorities in implementing the upcoming EU AI Act and other relevant legislations and international standards. The project will provide technical support to enhance the capacities, competencies, and knowledge of members of the Dutch and European Working Groups of Competent Authorities on AI, to supervise AI in compliance with the forthcoming AI Act and other relevant

legislation and international standards, such as UNESCO's Recommendation on the Ethics of AI, developing case studies for good practices, and assessing different modalities for supervising AI via a multistakeholder consultation.

The project has 3 phases:

- 1) comprehensive approach to understand the current state of AI supervision in the EU and beyond presented in a comprehensive report;
 - 2) capacity building efforts centring on specific domains and topics based on results of first phase, in the form of a series of case studies to explore AI supervision. It will look at how existing tools such as the EIA can contribute to the mission of the competent authorities;
 - 3) a multistakeholder consultation to explore and develop options for operationalizing AI supervision among Competent Authorities. This will culminate with recommendations on the operational settings and requirements for AI supervision.
- Project Status: Ongoing
 - Project Start Year: 2024
 - Project End Year: 2025
 - **Project Domain:** Knowledge sharing, capacity building, AI governance, ethical AI, multi-stakeholder participation, implementation of the Recommendation
 - **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
 - **Partnership:** European Union, Dutch Digital Infrastructure Authority
 - **Contact Information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 19: Supporting Africa and SIDS to Benefit from AI Technologies while Addressing Ethical Risks

- **Project Description:** This project aims to strengthen capacities and policies of Member States in Africa and SIDS to benefit from Artificial Intelligence (AI) technologies and to address the associated ethical risks, focusing especially on gender inequalities and discrimination. This will be pursued through the development of innovative capacity-building tools, including the Ethical Impact Assessment and Readiness Assessment Methodology as outlined in the Recommendation on Ethics of AI, which upholds protection, promotion and respect of human rights and fundamental freedoms, human dignity and equality as its objective.
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2024
- **Project Domain:** A capacity building, implementation of the UNESCO Recommendation on the Ethics of AI, Africa, SIDS
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
- **Partnership:** Government of Japan
- **Project Website** (links): <https://en.unesco.org/artificial-intelligence/ethics>
- **Contact Information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 20: AI Governance for Africa Toolkit - Regional and International Frameworks

- **Project Description:** This toolkit unpacks the context of AI governance, in Africa and globally, and considers advocacy approaches for future governance. It does so in the following ways: Part 1 examines existing AI governance instruments in Africa with a particular focus on the East African Community. This chapter outlines continental responses and details existing governing measures in Africa. Part 2 unpacks existing international governance measures. In doing so it considers governance trends and important considerations included in governance instruments. Part 3, which is a separate document, explores a series of key questions for the design of advocacy strategies on AI governance, particularly in African contexts. The aim of the toolkit is to empower journalists and civil society organizations to inform public discourse, drive policy and regulatory change and advocate for ethical and responsible AI deployment.
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year:
- **Project Domain:** [some keywords about the project]
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
- **Partnership:** Thompson Reuters Foundation, Patrick J. McGovern Foundation
- **Project Website** (links): <https://www.trust.org/>
- **Contact Information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 21: Business Council for Ethics of AI

- **Project Description:** The UNESCO AI Business Council is a strategic initiative designed to collaborate with companies worldwide in promoting the ethical development and use of artificial intelligence (AI). Drawing on the UNESCO Recommendation on the Ethics of Artificial Intelligence, the council aims to implement ethical principles in AI applications, foster the exchange of best practices, and enhance ethical impact assessments to promote AI that respects human rights globally.
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Indefinite
- **Project Domain:** Ethical Artificial Intelligence
- **Related Sustainable Development Goals (SDGs):** The project contributes to multiple SDGs, including but not limited to SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), SDG 10 (Reduced Inequalities), SDG 13 (Climate Action), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 17 (Partnerships for the Goals), by promoting ethical standards in the development and use of AI technologies.
- Partnership(s), Collaborator(s):
 - Co-chairs: Microsoft, Telefónica
 - Members: Bimbo Group, Salesforce, LG AI Research
 - Observers: GSMA
- **Links and multimedia:** <https://www.unesco.org/en/artificial-intelligence/business-council>
- **Contact Information:** Melguizo, Angel a.melguizo@unesco.org ; Eleonora Lamm e.lamm@unesco.org; Gonzalez, Natalia n.gonzalez@unesco.org

Project 22: AI Ethics Experts Without Borders (AIEB)

The AI Ethics Experts without Borders (AIEB) Network assists Member States in implementing the [UNESCO Recommendation on the Ethics of AI](#) by providing on-demand support and tailored policy advice and by contributing to UNESCO's knowledge production to guide the implementation of the Recommendation. The key tools used by the experts are the [Readiness Assessment Methodology](#) and the [Ethics Impact Assessment](#). The AIEB Network represents an expert facility featuring international pool of recognized experts (independent consultants, academics and researchers, governmental officials and civil servants, experts working in private sector, etc.) that have a relevant experience in designing or implementing policies to advance ethical governance of AI, fostering collaboration, building capacities and competences, and sharing knowledge and experience globally.

- **Department/Division:** Sector for Social and Human Sciences
- **Project Type/Output:** networks/event/research
- **Project Status:** ongoing
- Project Start Year: 2024
- Project End Year: open-ended
- **Project updates:** Project was launched at the Global Forum on the Ethics of AI in February 2024.
- **Project Domain:** Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence, Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being
- **Related Sustainable Development Goals (SDGs):** SDG 3 - Good Health and Well-being; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation and Infrastructure; SDG 10 - Reduced Inequality; SDG 13 - Climate Action; SDG 16 - Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Government: 70+ Member States of the Group of Friends of the Recommendation (an open-ended alliance of countries spearheading the implementation of the Recommendation).
 - Academia: Alan Turing Institute, IE University, London School of Economics, MIT, Technical University of Munich, Harvard University, Singapore Management University, University of Ghana, Universidad del Rosario, United Nations University, Chinese Academy of Science.
- Links and Multimedia: <https://www.unesco.org/ethics-ai/en>
- **Contact information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 23: The Global AI Ethics and Governance Observatory

The Global AI Ethics and Governance Observatory is a collaborative and information-sharing platform to increase understanding of the challenges and impact of AI and promote peer learning. The Global AI Ethics and Governance Observatory will host the results of the analytical work from all countries participating in the RAM exercise, together with the contributions from experts from around the world. The aim of the Observatory is to provide a global resource for policymakers, regulators, academics, the private sector and civil society to find solutions to the most pressing challenges posed by Artificial Intelligence.

- **Department/Division:** Sector for Social and Human Sciences

- **Project Type/Output:** research/database
- **Project Status:** ongoing
- Project Start Year: December 2023
- Project End Year: Open-ended
- **Project Domain:** Environment, Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence will disrupt/impact almost all industries and society. In particular, the Recommendation proposes concrete, impact-oriented policy actions in 11 areas: Ethical Impact Assessment; Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Gender; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - UN Partners: UN
 - Government: 70+ Member States of the Group of Friends of the Recommendation (an open-ended alliance of countries spearheading the implementation of the Recommendation).
 - Academia: Alan Turing Institute, IE University, London School of Economics, MIT, Technical University of Munich, Harvard University, Singapore Management University, University of Ghana, Universidad del Rosario, United Nations University, Chinese Academy of Science.
- **Links and Multimedia:** <https://www.unesco.org/ethics-ai/en>
- **Contact information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 24: Women for Ethical AI Network (Women4EthicalAI)

The Women for Ethical AI platform (Women4EthicalAI) leverages the knowledge, contribution and networks of leading Artificial Intelligence (AI) experts to advance gender equality in the AI agenda. This new multi-stakeholder collaborative platform supports governments and companies' efforts to ensure that women are represented equally in the design, use and deployment of AI, and to promote trustworthy, gender-friendly and inclusive AI systems. Women4Ethical AI's experts further contribute to advance all the other policy chapters and to implement the provisions contained in the UNESCO Recommendation on the Ethics of Artificial Intelligence, from education and research, to economy and labour, and the environment and ecosystems.

- **Department/Division:** Sector for Social and Human Sciences
- **Project Type/Output:** networks/event/research
- **Project Status:** ongoing
- Project Start Year: 2023
- Project End Year: open-ended
- **Project Domain:** Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence, Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being

- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Government: 70+ Member States of the Group of Friends of the Recommendation (an op-ended alliance of countries spearheading the implementation of the Recommendation).
 - Academia: Alan Turing Institute, IE University, London School of Economics, MIT, Technical University of Munich, Harvard University, Singapore Management University, University of Ghana, Universidad del Rosario, United Nations University, Chinese Academy of Science.
- Links and Multimedia: <https://www.unesco.org/en/artificial-intelligence/women4ethical-ai>
- Contact information: Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 25: Global Forum on the Ethics of AI

The Global Forum on the Ethics of AI will mark an important milestone in the building of a robust international coalition towards ensuring the ethical development and use of AI worldwide. The Forum will comprise three major components:

1. Ethical Development and Use of AI across the world reinforcing national regulatory frameworks and institutions.
 2. Global Collaboration on the Implementation of the Recommendation on the Ethics of AI: This session will feature digital ministers from across the world, including Africa, Latin America and the Caribbean, and Asia and the Pacific.
 3. Special Topics: parallel sessions will be dedicated to the exploration of the state of AI from different angles – Gender Equality, Environmental Protection, Readiness and Ethical Impact Assessments, Transparency and Non-discrimination.
- The Forum will take stock of the national efforts to promote the ethical development and use of AI and identify the best regulatory practices and institutional settings to ensure the ethical development of these technologies.
 - **Department/Division:** Sector for Social and Human Sciences
 - Project Type/Output: event
 - **Project Status:** ongoing
 - **Project Start Year:** December 2022
 - Project End Year: recurrent
 - **Department/Division:** Sector for Social and Human Sciences
 - **Project Domain:** Environment, Education, Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence will disrupt/impact almost all industries and society. In particular, the Recommendation proposes concrete, impact-oriented policy actions in 11 areas: Ethical Impact Assessment; Ethical governance and stewardship; Data policy; Development and international cooperation; Environment and ecosystems; Gender; Culture; Education and research; Communication and information; Economy and labour; Health and social well-being
 - **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
 - Partnership(s)/Collaborator(s):

- Government: 70+ Member States of the Group of Friends of the Recommendation (an op-ended alliance of countries spearheading the implementation of the Recommendation).
- **Links and Multimedia:** [Global Forum on the Ethics of AI event website](#), [Youtube Playlist](#) with all livestreams of the sessions
- **Contact information:** Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 26: Sensitizing and building capacity of the stakeholders to address ethical issues of AI

Project Description: To build the capacities of stakeholders of AI technologies (developers and beneficiaries), UNESCO has organized a series of roundtables on the selected topics of ethics of AI inviting eminent experts around the world. A series of short educative and informative video of each topic of the roundtable are produced and made available through UNESCO's YouTube channel for educational purposes. This project was financially supported by the Japanese Ministry of Education, Culture, Sports, Science and Technology.

- Department/Division: Sector for Social and Human Sciences
- Project Type/Output: Roundtables, short videos
- Project Status: completed
- Project Start Year: July 2019
- Project End Year: July 2022
- Project updates: Three roundtables on selected topics of Ethics of AI had been organized at UNESCO HQ inviting eminent experts from different regions as follows:
 - The 1st roundtable on Ethics of AI "Changing Relationship between Artificial Intelligence and Humans", December 2019.
 - The 2nd roundtable on Ethics of AI "Shaping the Future of AI through Cultural Diversity", March 2021.
 - The 3rd Roundtable on the ethics of AI "Challenges of AI Ethics and Governance", February 2022.
- The video recording of the roundtables are freely accessible through UNESCO website. 5 short educational videos on the topics addressed during the roundtables are freely accessible through UNESCO's youtube channel with several language subtitles.
- Project Domain: Gender, Health, Human Rights, Justice, Telecommunications, Artificial Intelligence will disrupt/impact almost all industries and society.
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): Japanese Ministry of Education, Culture, Sports, Science and Technology
 - Academia: Twente University (Netherlands), Harvard University (USA), Tokyo University (JPN), Kyoto University (JPN), Cardiff University (UK), Glasgow University (UK), Robotics Institute (Spain), Article 19, Concordia University (Canada), Rio de Janeiro State University (Brazil), Australian National University (Australia), Stanford Digital Civil Society Lab (USA), Pollicy organization (Uganda), Pretoria University (South Africa)
- Links and Multimedia:
 - Roundtable video recordings:

- 1st roundtable: "Changing Relationship between Artificial Intelligence and Humans", http://webcast.unesco.org/live/vod/2019/shs/20190312_shs_room-02/en/
- 2nd roundtable: "Shaping the future of AI through Cultural diversity", <https://www.youtube.com/watch?v=Rdp6hQXVpqM>
- 3rd roundtable: "AI Ethics and Governance: From Principles to Practices", <https://www.youtube.com/watch?v=Innb8D9NLP8>
- Educational short video links:
 - Do you know AI or AI knows you better? <https://youtu.be/im0XTC91qMI>
 - Does AI make better decisions than humans? <https://youtu.be/2E7I1hdjHsg>
 - Shaping AI through Cultural diversity <https://www.youtube.com/watch?v=AiK0iYZuNS0>
 - Evolving interactions between Humans and AI <https://youtu.be/xDmQMpwHdA>
- Contact information: Orio Ikebe (o.ikebe@unesco.org), Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 27: Landscape Study of AI Policies and Use in Southern Africa

Project Description: Guided by the UNESCO Recommendation, this project includes a policy mapping of AI and relevant digital policies in 9 countries in Southern Africa (Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe), as well as a light-weight review of the extent of AI use across four key sectors in the 9 countries. These analyses will adopt strong human rights and ethical standpoints, And will Highlight the areas of potential ethical risks and threats on the long-term fulfillment of fundamental rights, protection of social cohesion, and promotion of justice and equality will be essential for the future of technological development.

UNESCO will use the study findings to inform the expert and policy discussions ensuring that dialogues are evidence-based. In this framework, the specific objectives of this study are to:

1. Understand and raise public awareness on the actual utilization of the AI technologies in the Southern Africa region, taking some sectors as examples and case studies.
2. Alert policy makers and technicians on the potential risks and threats of AI utilization on human rights and fundamental freedom of individuals, on social justice and equality, on governance of public affairs, and on the environment.
3. Guiding the process of ethical governance by investigating existing stewardship principles from industries and government agencies.
4. It also seeks to promote human rights respecting governance frameworks by assessing ratification to international, continental and regional policies/frameworks/strategies.

The study will include two segments: (i) a mapping review of policies that will focus on providing critical analysis of the policy and normative environment from a human rights and ethical standpoint, which can frame the AI utilization;¹ and (ii) a sectoral landscape review of how the AI technologies have been used concretely, without necessarily the public and the policy makers being aware of all the human rights and ethical implications.

- Department/Division: UNESCO Harare office
- Project Type/Output: Research
- Project Status: completed
- Project Start Year: May 2022
- Project End Year: August 2022

- Project Domain: Research/report
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Government: Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe
 - Academia: Research ICT Africa
- Links and Multimedia: Link to the final study: <https://unesdoc.unesco.org/ark:/48223/pf0000385563>
- Contact information: Phinith Chanthalangsy p.chanthalangsy@unesco.org

Project 28: UNESCO-Southern Africa sub-Regional Forum on Artificial Intelligence (AI)

- Project Description: The Forum aims to provide a platform for Member States, international organizations, civil society, academia, the AI industry, and other stakeholders to discuss issues and challenges related to AI development in Africa, including equity and ethics and encourage intra-African cooperation in AI.
- Department/Division:
- Project Type/Output: Conference, synthesis report
- Project Status: completed
- Project Start Year: 2018
- Project End Year: 2022
- Project Domain: Artificial Intelligence; human rights; STEM education; data protection; gender equality
- Related Sustainable Development Goals SDGs: SDG 17-Partnership for the Goals, SDG 5- Gender Equality, SDG 4- Quality education, SDG 10- Reduced Inequality
- Partnership(s)/Collaborator(s): Ministry of Higher Education, Technology and Innovation of Namibia
- Links and Multimedia: www.sarfai2022.org
- Contact information: Irakli Khodeli (i.khodeli@unesco.org), ai-ethics@unesco.org

Project 29: UNESCO IPDC Handbook on Reporting on Artificial Intelligence for Journalists

- Project Description: As artificial intelligence becomes increasingly influential in shaping societies, it is essential for journalism not only to cover developments in AI itself but also critically examine its broader societal implications. This includes investigating shifts in power dynamics between companies, authorities, and citizens, as well as the impact of data-driven decision-making. While AI can serve the public interest, journalists need the expertise to identify and report on risks such as exclusion, unequal benefits, and human rights violations. To support journalism educators, UNESCO's International Programme for the Development of Communication (IPDC) has partnered with the World Journalism Education Council (WJEC) to develop this handbook. Designed to equip journalism educators, the handbook provides tools to help students and working journalists report on AI with accuracy, clarity, and a comprehensive approach. It explores key aspects such as defining AI, understanding its evolution, and its role in journalism, as well as best practices, potential pitfalls, and ethical considerations in AI reporting. To enhance learning, the handbook includes reflection questions, learning outcomes, assignments, and recommended readings for further exploration.

- Department/Division: Communication and Information
- Project Type/Output: Handbook/ Capacity Building
- Project Status: Ongoing
- Project End Year: 2023
- Project Update: This handbook has been used in several IPDC-funded projects, through its annual call for proposals, to build AI literacy and strengthen journalistic practices across diverse regions. In Tanzania, it helped boost AI awareness and usage among 300 journalists through capacity-building sessions, a national survey on AI adoption, and stakeholder meetings with editors. Across Africa, the handbook was localized and contextualized in partnership with the African Union to train journalists from 49 countries on reporting not only on AI, but also on emerging technologies, disinformation, and migration. In the Caribbean (Barbados, Grenada, and Trinidad and Tobago), it was integrated into virtual training sessions to strengthen data journalism skills in the context of disaster preparedness. The handbook also informed targeted initiatives such as: supporting African women journalists' digital safety and AI awareness in Mauritania and East Africa; empowering Palestinian journalists and academics to use AI ethically; strengthening AI literacy among community and independent journalists in Paraguay; advancing journalism curricula in South Asia; and promoting gender-responsive reporting on technology-facilitated violence through a regional project in Africa. These efforts demonstrate the handbook's growing role as a practical, adaptable tool for building journalist capacities worldwide in an AI-driven environment.
- Project Domain: Gender, Human Rights, Telecommunications, Communication and Information, Medi, Education
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation and Infrastructure; SDG 10 - Reduced Inequality; SDG 16 - Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): World Journalism Education Council (WJEC), Çukurova University, Utrecht University, Christ Nagar College Trivandrum, Saint Petersburg University, Department of Communication and Media Studies at the University of Johannesburg, Media Convergency Catalyst, African Women in Media (AWiM), Media Development Center - Birzeit University, Union des Femmes des Médias de Mauritanie (UFMM), Digital Rights Nepal, Union of Journalists of Paraguay (SPP).
- Links and Multimedia: <https://unesdoc.unesco.org/ark:/48223/pf0000384551>
- Contact information : Saorla McCabe (s.mccabe@unesco.org), Misako Ito (m.ito@unesco.org)

Project 30: UNESCO Framework for Culture and Arts Education 2024

The UNESCO Conference on Culture and Arts Education took place from 13-15 February 2024 in Abu Dhabi, UAE and resulted in the unanimous adoption of the first [Global Framework for Culture and Arts Education](#), strengthening the synergies between education and culture in formal, non-formal, informal, lifelong and life wide education and learning, including TVET, across the broad spectrum of cultural resources from cultural heritage to living expressions and the creative economy. The Framework includes two specific references to AI among its policy guidance and recommendations:

- (II. Objectives, point ii) "Harness contemporary advances and seize the opportunities opened up by technology, while identifying, preventing and mitigating risks, notably in digital technologies and Artificial Intelligence (AI), in order to support and promote reflection, creativity, initiatives, and ethical and responsible use in this domain, in particular to the benefit of the educational, cultural and creative sectors."

- (IV Strategic Goals, a) Access, inclusion and equity; point 14): “All learners, educators and teachers should have equitable and inclusive access to infrastructure and resources and learning opportunities to develop the skills and competencies to benefit from digital technologies and AI. While digital technologies and AI have expanded new ways to access and engage with culture and arts education, addressing the digital divide and the imbalance in cultural diversity and expressions online have become equally critical priorities to remove barriers to participation due to economic, geographical and social disparities, and to equip learners, teachers and educators with the relevant knowledge and skills they need, including media and information literacy.”
- Department/Division: UNESCO Division of Cultural Policies and Intercultural Dialogue
- Project Type/Output: Policy Guidance
- Project Status: Adopted
- Project Start Year: 2022
- Project End Year: 2024
- Project updates: Framework adopted on 15 Feb 2024
- Project Domain: Culture and Education
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Government: UAE
- Links and Multimedia:
 - Steps: <https://www.unesco.org/en/frameworkcultureartseducation>
 - Adoption: <https://www.unesco.org/en/articles/unesco-member-states-adopt-global-framework-strengthen-culture-and-arts-education>
- Contact information: Paola Leoncini Bartoli, Director of UNESCO CPD, p.leoncini-bartoli@unesco.org

Project 31: UNESCO High-level discussion on AI in the audio-visual industry (2023)

- On 19 October 2023, UNESCO organized a high-level discussion on AI in the audio-visual industry entitled “The Film sector on the frontlines” at its HQ in Paris, which brought together film stakeholders and AI experts from across the globe to voice a diversity of perspectives on the challenges and opportunities presented by AI in the cultural and creative sectors. Recommendations from the discussion highlighted the need for UNESCO and other international organizations to develop inclusive and participatory international guidelines and standards that are human-centered and guarantee:
 - Consent: artists and cultural professionals should be informed of and consent to the use of their work for training generative AI models;
 - Fair remuneration: artists and cultural professionals whose work is being used by generative AI tools should be remunerated and have their intellectual property rights protected;
 - Transparency: users of generative AI tools should be aware of the sources used to create the content they are requesting, notably to avoid unintentional plagiarism. Similarly, works that were generated through AI should be clearly indicated;
 - Cultural diversity: generative AI models should be trained and corrected to avoid perpetuating biases and stereotypes and ensure that diverse and representative stories or images are produced and disseminated.
- Department/Division: UNESCO Diversity of Cultural Expressions Entity

- Project Type/Output: Awareness raising, policy recommendations
- Project Status: Completed
- Project Start Year: 2023
- Project End Year: 2023
- Project updates: Event organized 19 October 2023
- Project Domain: Culture and Creative Industries/ Audio-visual sector (Film)
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - UN Partners: consultations with ILO, WIPO
 - Private Sector: CISAC
- Links and Multimedia:
 - <https://www.unesco.org/en/articles/unesco-unites-diverse-perspectives-inform-policies-ai-creative-sectors>
- Contact information: Karalyn Monteil, Head of Programmes & Stakeholders Outreach, UNESCO Diversity of Cultural Expressions Entity, k.monteil@unesco.org

Project 32: UNESCO Expert Reflection Group on the diversity of cultural expressions in the digital environment (2024-2024)

- In the framework of the UNESCO 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions, UNESCO has established a reflection group on the diversity of cultural expressions in the digital environment. The reflection group's mandate for 2024-2025 will be to exchange knowledge and experiences regarding the implementation of the 2005 Convention in the digital environment and to formulate recommendations, which will be presented to the UNESCO Intergovernmental Committee on the Protection and Promotion of the Diversity of Cultural Expressions at its eighteenth session in February 2025 and then transmitted to the tenth session of the Conference of Parties of the 2005 Convention in June 2025. The group is composed of 18 experts from 6 regions. They will participate in two meetings to be held in May and September 2024.
- Department/Division: UNESCO Diversity of Cultural Expressions Entity
- Project Type/Output: Policy recommendations
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project updates: Experts identified Jan 2024
- Project Domain: Culture and Creative Industries
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 9 – Industry, Innovation and Infrastructure; SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s):
 - Government: Canada, France
- Links and Multimedia:
 - <https://www.unesco.org/creativity/en/articles/closed-call-experts-reflection-group-diversity-cultural-expressions-digital-environment>

- Contact information: Laurence Mayer-robitaille, l.mayer-robitaille@unesco.org, UNESCO Diversity of Cultural Expressions Entity

Project 33: Addressing Hydro-Climatic Vulnerability through Citizen and Open Science

- The project aims to improve the ability to forecast hydro-climatic extremes, such as droughts and floods through innovative technologies, such as AI, to build water resilience against climate change and improve water management in pilot countries of Sub-Saharan Africa and Latin America. A mapping of Machine Learning (ML) and Artificial Intelligence (AI) applications for water resource management is currently underway, beginning from November 2023. These exercises will establish the baseline and identify potential for ML/ AI applications in sustainable water management.
- Department/Division: UNESCO Natural Sciences Sector, Water Sciences Division
- Project Type/Output: research, databases
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2026
- Project updates:
- Project Domain: water, climate change, disaster risk reduction
- Related Sustainable Development Goals (SDGs): SDG 6 Clean water and sanitation; SDG 13 Climate action
- Partnership(s)/Collaborator(s):
 - Government: Government of Flanders, Belgium; UNESCO IHP National Committee of the Republic of Korea
 - Academia: Delaters
- Links and Multimedia: <https://www.unesco.org/en/ihp/hydro-resilience>
- Contact information: k.verbist@unesco.org Koen Verbist UNESCO Intergovernmental Hydrological Programme

Project 34: Online Repository of AI Tools for the Public Sector, Media, and Judiciary

- Project Description: UNESCO, in collaboration with IRCAI, is developing an Online Repository of AI Tools for the Public Sector, Media and Judiciary, a multilingual web platform curating open-source and ethical AI tools and providing practical guidelines on their use for stakeholders in these three sectors. The repository will be a one-stop resource for the target stakeholders to identify, assess, and leverage AI tools of their choice to facilitate or enhance their operations, and help them address sector-specific challenges.
- Department/Division: Sector for Communication and Information
- Project Type/Output: Multilingual web platform named "AI Radar" by UNESCO and IRCAI
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: TBD
- Project updates:
 - The Beta version was presented during the Internet Governance Forum (IGF) 2024 in Riyadh, Kingdom of Saudi Arabia.
 - Development of an advisory board is underway

- Project Domain: Artificial Intelligence, SDGs, Media Development, Public Sector, Justice Sector
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - International Research Centre On Artificial Intelligence (IRCAI)
- Links and Multimedia:
- Contact information: Jing Xu (ji.xu@unesco.org), Prateek Sibal (p.sibal@unesco.org), Safa Boukhbiza (s.boukhbiza@unesco.org), Michelle Nie (m.nie@unesco.org)

Project 35: Training for the Justice Sector in Latin America on the UNESCO Global Training Toolkit on AI and the Rule of Law

- Project Description: The “Training for the Justice Sector in Latin America on the UNESCO Global Training Toolkit on AI and the Rule of Law”, strengthens the capacity of judges and prosecutors in this area, and develops a set of guidelines for the use of AI by the judiciary. It also addresses international human rights standards and how they can be used in cases involving the use of artificial intelligence. The first edition of the “Training for the Justice Sector on the UNESCO Global Training Tool on Artificial Intelligence and the Rule of Law” trained 21 judicial operators from 14 countries in Latin America and the Caribbean. It was organized in partnership with the Inter-American Court of Human Rights in Costa Rica in November 2023. In Paraguay, 54 judicial operators from Paraguay strengthened their skills in the use of artificial intelligence, based on the UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals. The training was organized by UNESCO/Montevideo in Asunción in November in collaboration with the Supreme Court of Paraguay. An agreement was signed between UNESCO Montevideo and the Supreme Court of Paraguay to continue working together to strengthen capacity on AI in the country
- Project Type/Output: Strengthening capacities in the use of AI in the judicial sector in Latin American countries.
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Ongoing
- Project Update: In Colombia, UNESCO and the Superior Council of the Judiciary of Colombia launched a partnership to promote the ethical use of artificial intelligence (AI) in the judicial system. This collaboration represents a significant step towards ensuring that technology improves justice and human rights in Colombia and serves as a model for the wider Latin American region. The objective of the partnership is to develop guidelines for the judiciary, based on UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals, and capacities for the responsible use of artificial intelligence in the country's judicial offices. UNESCO is providing technical advice for the development of the necessary tools to handle the complexities of AI while upholding justice.
- UNESCO Montevideo is providing advice in the process of the Organic Law on Artificial Intelligence in the National Assembly of Ecuador.
- In 2025, workshops are planned to take place during the Ibero-American Judicial Summit in the Dominican Republic in May and the Latin American Federation of Magistrates (FLAM) Annual Assembly in Ecuador in the same month.
- Partnership(s)/Collaborator(s):
 - Inter-American Court of Human Right
 - Supreme Court of Paraguay
 - Superior Council of the Judiciary of Colombia

- Latin American Federation of Magistrates (FLAM)
- International Network on Open Justice (RIJA)
- Links and Multimedia: [Analizar la Inteligencia Artificial desde una perspectiva del Estado de Derecho](#) (only in Spanish, [Paraguay capacita a jueces sobre el uso ético de la Inteligencia Artificial en el sistema judicial](#) (only in Spanish, [AI in the Courtroom: Colombian Constitutional Court's Landmark Ruling Cites UNESCO's AI Tools](#) (in English and Spanish)
- Contact Information: Rosa M. Gonzalez (r.gonzalez@unesco.org)

Project 36: AI and Journalism in Latin America

- Project Description: A series of knowledge products on journalism and AI has been developed by UNESCO Montevideo, building on materials produced by a series of training programmes organized in 2020-2024. The training programme reached 4,000 Latin American journalists and focused on the coverage of technology by the media, particularly AI. UNESCO/Montevideo published a regional assessment on the use of AI by Latin American journalists and a series of four videos is currently being produced
- Project Type/Output: A series of videos are being developed.
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2025
- Project Update: The first video is titled How do you do quality AI news coverage? and it examines the main principles of quality news coverage on artificial intelligence (AI), a technology that has had a transformative impact on our society since the release of ChatGPT in 2022. The script is aimed at journalists and communicators and addresses the challenges and responsibilities of reporting on complex and rapidly developing technology. From the necessity of a comprehensive grasp of AI systems to the significance of maintaining a balance between celebrating and warning about their effects, the video provides practical guidance and essential ethical principles. The video outlines three key approaches to reporting on AI: understanding the technologies to communicate with them accurately, avoiding exaggeration or sensationalism, and applying ethical principles based on UNESCO's recommendation on AI. It also highlights critical questions and concrete examples to help journalists delve deeper into issues such as fairness, transparency, and privacy, empowering the audience to understand the current impacts of AI.
- Partnership(s)/Collaborator(s): No
- Links and Multimedia: Link to the first video [here](#) (only in Spanish)
- Contact Information: Rosa M. Gonzalez, (r.gonzalez@unesco.org)

Project 37: Training on reporting and ethical use of AI in community media and independent journalists in Paraguay

- Project Description: The project aims to train 200 independent journalists and community media in Paraguay on reporting on technology, including on Artificial Intelligence and its ethical use. Through practical workshops and educational resources, participants will gain a solid understanding of reporting on ethical principles and the implications of AI in journalism. The goal is to promote the production of high-quality journalistic content while strengthening the involvement of communities in debates around technology and artificial intelligence. This approach will contribute to ensuring an inclusive and ethical journalistic narrative while empowering young journalists to tackle current technological challenges.
- Project Type/Output: Training sessions conducted for 200 journalists and community media representatives in Paraguay on ethical AI use, leveraging UNESCO guidelines.

Practical workshops facilitated and educational resources developed to enhance participants' understanding of AI's ethical implications in journalism. Guidelines and best practices documents provided to ensure the production of responsible journalistic content aligned with ethical standards and AI integration. Strengthened community media involvement through empowerment with ethical AI utilization skills and enhanced technological resilience among independent journalists via targeted training sessions. Training of trainers on Ethical Use and Reporting of AI destined to Journalism Professors of Schools of Journalism in the country

- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Update: The project is starting.
- Partnership(s)/Collaborator(s): Sindicato de Periodistas del Paraguay (SPP)
- Links and Multimedia:
- Contact Information: Rosa M. Gonzalez (r.gonzalez@unesco.org)

Project 38: Dubai Declaration: Leveraging AI and Emerging Technologies to Implement the UNESCO 2019 Recommendation on Open Educational Resources (OER)

- Project Description: This project aims to advance digital transformation by integrating AI and emerging technologies in the creation, adaptation, and dissemination of Open Educational Resources (OER). It focuses on addressing digital inclusion and promoting equitable access to knowledge through openly licensed content while tackling key issues like generative AI, data privacy, data security, and AI-driven tools for attribution and translation. The project will support capacity building for governments and institutions, adhering to the UNESCO ROAMX principles of responsible and inclusive technology use. Key activities include global awareness campaigns, digital competency training, policy dialogues, and the development of sustainable OER ecosystems. The project's outcomes include increased global collaboration, enhanced stakeholder capacities, informed policies, and strengthened inter-regional cooperation to foster responsible AI use and expand access to quality knowledge for all.
- Project Type/Output: Increased global awareness and collaboration on AI and OER in line with the Dubai Declaration, enhanced stakeholder capacities to engage with AI and emerging technologies for OER implementation, the development of informed policies promoting the responsible use of AI in OER, and strengthened inter-regional cooperation and advocacy to support equitable access to knowledge through AI-powered OER initiatives.
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Update: The project is starting.
- Partnership(s)/Collaborator(s): Mohammed Bin Rashid Knowledge Foundation, UN SDSN, OER Africa
- Links and Multimedia: <https://unesdoc.unesco.org/ark:/48223/pf0000392271.locale=en>
- Contact Information: Zeynep Varoglu, Senior Programme Specialist, Communication and Information Sector (z.varoglu@unesco.org)

Project 39: Data Governance and AI

- Project Description: UNESCO is leading global efforts to shape data governance in the digital and AI age, recognizing that effective AI governance is fundamentally built on strong data governance. Through the [Broadband Commission Working Group on Data](#)

Governance, it is bringing together governments, industry leaders, and civil society to address key challenges such as inclusive data policies, interoperability, cross-border data flows, AI-driven data use, and digital self-determination. As part of this initiative, launching in April 2025, UNESCO is developing the Data Governance Toolkit: A Roadmap for Navigating the Digital Age, a practical resource designed to help policymakers, regulators, and governments—particularly in developing countries—implement robust, inclusive, and future-proof data governance frameworks. This initiative benefits from strong engagement with key stakeholders, including the African Union, Smart Africa, UNDP, ITU, GSMA, Singapore’s IMDA, UNHCR, 5rights, ITC, and other global partners. By bridging policy and practice, the initiative equips nations with the tools needed to navigate AI-driven digital transformation responsibly and sustainably.

- Project Type/Output: Broadband Commission Working Group producing a Data Governance Toolkit
- Project Status: ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Partnership(s)/Collaborator(s): co-chairs: ITU, UNDP, the African Union
- Links and Multimedia: <https://www.broadbandcommission.org/working-groups/data-governance/>
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Leona Verdadero (l.verdadero@unesco.org).

Project 40: Sustainability and AI

- Project Description: UNESCO is championing efforts to make AI development more sustainable and inclusive, addressing the environmental and equity challenges posed by Generative AI’s rising energy consumption. As these technologies become increasingly concentrated in high-resource regions, there is a growing risk of deepening global inequalities—particularly for underserved communities already facing the impacts of climate change. In response, UNESCO is promoting energy-efficient AI solutions, including Small Language Models (SLMs), frugal AI, and edge computing, to support sustainable AI adoption in low-resource settings. Building on its collaboration with the tech and scientific communities, UNESCO will launch a series of practical guides and policy recommendations to drive greener, more accessible AI innovation. The upcoming report, "Can We Make Generative AI Sustainable?", in partnership with University College London (UCL), will serve as a foundation for these efforts, ensuring that AI’s future is both environmentally responsible and globally inclusive.
- In addition, CI is collaborating with its Natural Sciences sector on an AI for the Planet initiative, in partnership with BCG, to further explore how AI can be leveraged to address environmental challenges.
- Project Type/Output: Research projects with policy recommendation publications
- Project Status: ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Partnership(s)/Collaborator(s): UCL
- Links and Multimedia:
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Leona Verdadero (l.verdadero@unesco.org).

Project 41: AI and Gender Equality

- Project Description: The CI Sector’s publication on "[Challenging systematic prejudices: an investigation into bias against women and girls in large language models](#) (LLM, 2024),

highlights systematic LLM biases and offers recommendations for policy and practice to support women's inclusion in the digital age. It follows the 2022 publication "The effects of AI on the Working Lives of Women", providing new data and insights on barriers that women face in the workplace in the digital age.

- Project Type/Output: report
- Project Status: completed
- Project Start Year: 2024
- Project End Year: 2024
- Partnership(s)/Collaborator(s): UCL
- Links and Multimedia: <https://unesdoc.unesco.org/ark:/48223/pf0000388971>
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Leona Verdadero (l.verdadero@unesco.org).

Project 42: MOOC on Freedom of Expression, Artificial Intelligence & Elections

- Project Description: The UNESCO initiative Guaranteeing Freedom of Expression and the Right to Information for Free, Plural and Fair Elections in Digital Times addresses the impact of digital technologies on electoral processes. It focuses on issues such as online hate speech, disinformation, and the integrity of electoral information. This initiative is part of UNESCO's Medium-Term Strategy for 2022-2029 (41 C/4). Strategic Objective 3 aims to promote freedom of expression, cultural diversity, education related to global citizenship, and the protection of heritage. Strategic Objective 4 involves the development and use of technological environments through knowledge exchange, skill-building, and ethical frameworks. The increased use of digital platforms and tools, including social media and artificial intelligence (AI), has introduced changes to how information is produced, distributed, and accessed during elections, affecting electoral information integrity and impacting on democratic institutions. These developments require responses from actors involved in electoral processes, such as journalists, political parties, civil society groups, electoral management bodies, media regulators and voters. The project supports capacity building activities, resources, electoral related MIL, digital governance, and support to the safety of journalists, particularly women journalists, all along electoral cycles. Structured around five impact areas, the project seeks to prevent information pollution and hate speech during electoral processes, ultimately contributing to transparent, inclusive, and peaceful elections.
- Project Type/Output: Massive Open Online Course, Handbook,
- Project Status: completed
- Project Start Year: 2024
- Project End Year: 2024
- ported as part of [2022 Compendium on UN AI Activities?](#) No
- Project Update:
 - A handbook on [Elections in Digital Times: A Guide for Electoral Practitioners](#) that assesses the impact, both positive and negative, of new developments relating to social media and Artificial Intelligence in the context of democratic elections. The handbook, published in 2022, was an important resource that contributed to capacity-building initiatives and training, both online and on-the-ground.
 - A multilanguage free Massive Open Online Course (MOOC) on [Information and Elections in the Digital Era](#) was launched in 2022 by UNESCO and UNDP with the support of the Knight Center for Journalism, in English, Spanish, Portuguese and French. The course reached a global audience of electoral practitioners and stakeholders, as well as journalists. In total, the four courses reached 5,530 students from 162 unique countries and territories.
 - In April 2024, UNESCO, UNDP Bureau for Policy and Programme Support and the Knight Center for Journalism in the Americas, launched, with the support of EAD/

DPPA a new multilingual free Massive Open Online Course (MOOC) on [Freedom of Expression, Artificial Intelligence, and Elections](#). This course, which reached over 8,000 participants from 160 countries and was also accessible in English, Spanish, Portuguese and French.

- Following the 2024 MOOC, in April 2025 UNESCO, UNDP and EAD/DPPA published a comprehensive [Issue Brief on Freedom of Expression, Artificial Intelligence, and Elections](#).
- As part of the project, several on-the-ground trainings have taken place including in The Philippines, Cambodia, Indonesia, Madagascar, Ghana, Nigeria, Mozambique, Angola, Paraguay and Dominican Republic including the integration of AI tools in elections coverage and the prevention of AI disinformation.
- Integration of a section dedicated to freedom of expression and electoral information integrity for the [UNESCO Guidelines of the Governance of Digital Platforms](#).
- Participation in the Expert group in charge of drafting the [Principles and Guidelines for the use of social and digital media in Africa](#), an initiative of the Association of African Electoral Administrations (AAEA).
- Partnership(s)/Collaborator(s): UNESCO, UNDP, Knight Center for Journalism in the Americas, Electoral Assistance Division (EAD), Department of Political and Peacebuilding Affairs (DPPA), UN.
- Links and Multimedia: <https://www.unesco.org/en/articles/8000-enroll-new-course-freedom-expression-ai-and-elections> and <https://journalismcourses.org/product/freedom-of-expression-artificial-intelligence-elections/>
- Contact Information: Mehdi Benchelah (m.benchelah@unesco.org), Albertina Piterbarg (a.piterbarg@unesco.org), Prateek Sibal (p.sibal@unesco.org), Andrea Cairola (a.cairola@unesco.org)

Project 43: AI Governance for Parliamentarians: Emerging Approaches to AI Regulation Across the World

- Project Description: The document titled "Consultation paper on AI regulation: emerging approaches across the world" is a UNESCO policy brief that explores various global strategies for regulating artificial intelligence (AI) systems. It examines how different countries are addressing the challenges and opportunities presented by AI, focusing on regulatory frameworks, ethical considerations, and governance models. The paper aims to inform policymakers, stakeholders, and the public about the evolving landscape of AI regulation and to foster international dialogue on best practices. It also serves as a knowledge basis for capacity building of parliamentarians engaged in AI governance.
- Project Type/Output: Report, Capacity Building Material
- Project Status: completed
- Project Start Year: 2024
- Project End Year: 2025
- Links and Multimedia: <https://unesdoc.unesco.org/ark:/48223/pf0000390979>
- Contact Information: Cédric Wachholz (c.wachholz@unesco.org), Prateek Sibal (p.sibal@unesco.org)

Project 44: Trainings for the Justice Sector in Africa on AI and the Rule of Law

- Project Description: Guided by UNESCO's Global Toolkit on AI and the Rule of Law, a series of workshops are being organized to build the judges and members of judiciary's capacity to deliberate and manage cases of AI/digital origin, while protecting human rights, with a focus on enhancing the applicability of global and regional frameworks and experiences to local and regional legal contexts. In 2024, UNESCO organized a Pan African training on AI and the Rule of Law, in Nairobi on 19-21 November 2024, with the

participation of the African Court for Human and People's Rights and the World Bank. The event gathered 26 judicial operators from 12 different countries including Tanzania, Cameroon, Ghana, Rwanda, Uganda, Nigeria, Ethiopia, South Sudan, Lesotho, Morocco, Namibia and Kenya, as well as an online participation. This event opened collaboration with new partners and national initiatives in 2025. UNESCO also organized an online regional consultation on the Guidelines on the Use of AI in Courts and Tribunals to engage with justice sectors in Eastern Africa on 27 September 2024; a series of 4 webinars in partnership with Lawyers Hub, from April to June 2024 to explore the gender dimensions of AI on rule of law and human rights in Africa; and supported the organization of the Africa Law Tech Festival in August 2024, in Nairobi and online. This project aims to support the implementation of the programme on Artificial Intelligence and the Rule of Law, in line with the Recommendation on the Ethics of Artificial Intelligence. This project is contributing to the realization of 42 C/5 Outcome 9, Output 9.IP5. This activity contributes to Global Priority Africa, in particular its Flagship Programme 4: Harnessing new and emerging technologies for sustainable development in Africa, including through the implementation of the recommendation on the ethics of artificial intelligence (AI).

- Department/Division: Sector for Communication and Information/Nairobi
- Project Type/Output:
 - Strengthening capacities in the use of AI in the judicial sector in African countries
 - Supporting implementation of the Guidelines in Africa
- Project Status: ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Update: Built on [the Pan-African dialogue and training on AI and rule of law for judicial operators in Africa](#), organized in November 2024 in Nairobi: 1 national training was organized for 31 judicial operators on AI, Data Protection and the Rule of Law on 14-15 April 2025 in Kigali, Rwanda. The training and reflects Rwanda's pivotal role as the host country of the AI Africa Summit in shaping AI for development and in using it in its justice system; A translation of the Global toolkit on AI and the rule of law for the judiciary from English to Amharic is ongoing
- Project Domain: Artificial Intelligence
- Related Sustainable Development Goals (SDGs): SDG 5, SDG 10, SDG 16, and SDG 17 by educating legal professionals on critical AI issues like bias, transparency, and accountability, ensuring that AI tools are used effectively and ethically in judicial processes.
- Partnership(s)/Collaborator(s):
 - African Court on Human and People's Rights,
 - GIZ,
 - World Bank, European Union,
 - Lawyers' hub,
 - The International Association of Women Judges
- Links and Multimedia: <https://www.unesco.org/en/articles/advancing-african-judicial-expertise-ai-freedom-expression-and-rule-law>, <https://www.youtube.com/watch?v=ttlscJOwPE>, <https://www.unesco.org/en/articles/shaping-future-justice-rwanda-training-judiciary-ai-data-protection-and-rule-law>
- Contact Information: Misako Ito (m.ito@unesco.org), Jay Ralitera (j.ralitera@unesco.org)

2. Related Sustainable Development Goals

SDGs 3, 4, 5, 8, 9, 10, 11, 13, 16, and 17

3. Relevant links

<https://www.unesco.org/en>

Contact information

Irakli Khodeli(i.khodeli@unesco.org), and Lihui XU (l.xu@unesco.org), and Rosanna Fanni (r.fanni@unesco.org)

United Nations Economic and Social Commission for Western Asia



UNITED NATIONS

الاستقواء
ESCWA

1. Description of Activities on AI

Project: Artificial Intelligence Futures for the Arab Region

Project Description:

The *Artificial Intelligence Futures for the Arab Region* report is part of ESCWA's global megatrends series that are intended to help policymakers better understand the implications of these megatrends on the Arab region and to provide member states with policy recommendations that can help optimize the positive impact of these trends and minimize their negative effect. So far, ESCWA has analyzed three megatrends: E-mobility, Metaverse, and Artificial Intelligence.

The Artificial Intelligence (AI) report presents a comprehensive analysis of AI as a transformative global megatrend, with a particular focus on its implications for the Arab region through to 2040. It delves into the multidimensional impact of AI, examining its potential to drive innovation, reshape economies, and influence societal development across the region. The report outlines three strategic pathways through which AI could evolve in the Arab world: optimizing partnerships and technologies to meet local priorities; promoting cultural and linguistic identity through Arabic-language AI development; and leveraging AI to accelerate progress on the Sustainable Development Goals (SDGs).

The report explores how AI could revolutionize key sectors in the Arab region, such as healthcare, education, government services, and cultural preservation. It highlights the opportunities AI offers for job creation, skill transformation, and digital infrastructure development. The analysis also addresses the risks and challenges associated with AI, including ethical concerns, data governance, and the risk of deepening inequalities. Throughout, the report emphasizes the critical role of regional capacity-building and the importance of responsible AI governance tailored to local values and priorities.

Concluding with a series of key findings and strategic recommendations, the report offers actionable insights for government agencies, private sector stakeholders, civil society actors, and international partners. It calls for immediate and sustained investment, regulation, and foresight to ensure AI becomes a force for inclusive, equitable, and sustainable development in the Arab region. This timely report equips regional leaders with the foresight and tools to

engage proactively with AI and to shape its trajectory in ways that align with regional visions and aspirations.

- **Project Type/Output:** Report
- **Project Status:** The current stage of the project: Completed
- **Project Start Year:** 2024
- **(Projected) End Year:** 2025
- **Domain:** Crosscutting, as the application of AI is influencing and transforming all facets of life.
- **Data Source:** <https://publications.unescwa.org/2023/megatrends/key-messages-artificial-intelligence.html>
- **Related SDGs:** All SDGs
- **Partners:**
 - **UN Partners:** ITU
 - **Private Sector:** Middle East Institute
 - **Academia:** American University of Beirut, IE University, American University in Cairo
- **Links:** <https://publications.unescwa.org/2023/megatrends/key-messages-artificial-intelligence.html>

2. Related Sustainable Development Goals

All SDGs

3. Relevant Links

Contact information:

Mounir Tabet. Email Address: mounir.tabet@un.org; mounirtabet@gmail.com

Youzhi Zhang. Email Address: Youzhi.zhang@un.org

United Nations Framework Convention on Climate Change



United Nations
Framework Convention on
Climate Change

1. Description of Activities on AI

Project 1: UNFCCC Technology Mechanism Initiative on Artificial Intelligence for Climate Action

- Project Description: The UNFCCC Technology Mechanism Initiative on Artificial Intelligence for Climate Action (#AI4ClimateAction) aims to explore the role of AI as a powerful technological tool for advancing and scaling up transformative climate solutions for mitigation and adaptation action in developing countries with a focus on least developed countries (LDCs) and small island developing States (SIDS), while also addressing the challenges and risks posed by artificial intelligence. In 2023, the Conference of the Parties (COP) of the UNFCCC requested the UNFCCC Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) to implement the initiative with special attention to capacity needs and technology priorities of developing countries and in support of the Technology Mechanism joint work programme for 2023-2027;
- Division: Means of Implementation Division/Technology Sub-Division
- Project Type: Initiative
- Project Status: Ongoing
- Project Start Year: 2023
- Project Domain: Climate action
- Related Sustainable Development Goals (SDGs): All, in particular SDG 13 – Climate Action
- Partnership(s)/Collaborator(s):
 - UNEP/CTCN
- Relevant Links and Multimedia: https://unfccc.int/ttclear/artificial_intelligence
- Contact information: Moritz Weigel (tec@unfccc.int)

Project 2: AI Innovation Grand Challenge

- Project Description: The UNFCCC Technology Executive Committee (TEC) launched the AI Innovation Grand Challenge in partnership with Enterprise Neurosystem during a [High-level Event on Artificial Intelligence for Climate Action](#) at the UN Climate Change Conference in Dubai in December 2023. The AI Innovation Grand Challenge is a climate innovation competition to identify new AI applications for climate mitigation and adaptation action in developing countries and to make them available open-source as a public good. The contest was held from June to November 2024, with more than 100 submissions from around the world. The Grand Challenge progressed with multiple judging rounds including a live pitch session, and the grand winner of the AI Innovation Grand Challenge was announced and presented with the award at the United Nations Climate Change Conference in Baku, Azerbaijan.
- Division: Means of Implementation Division/Technology Sub-Division
- Project Type: Innovation contest
- Project Status: Completed
- Project Start Year: 2024

- Project Domain: Climate action
- Related Sustainable Development Goals (SDGs): All, in particular SDG 13 – Climate Action
- Partnership(s)/Collaborator(s):
 - Enterprise Neurosystem
- Relevant Links and Multimedia: https://unfccc.int/ttclear/artificial_intelligence
- Contact information: Moritz Weigel (tec@unfccc.int)

Project 3: Information Note on AI for Climate Action in Developing Countries: Opportunities, Challenges and Risks

- Project Description: This knowledge product has been prepared by the Technology Executive Committee (TEC) as part of the UNFCCC Technology Mechanism Initiative on AI for Climate Action. It provides an overview of the opportunities, risks, and challenges of using AI for climate action in developing countries, with a focus on least developed countries and small island developing States. The publication examines the potential of AI to enhance both climate change adaptation efforts through AI applications, including for climate modelling, early warning systems and agri-food systems, and climate change mitigation efforts through AI applications in energy and transport management, among others. The publication also highlights the challenges and risks of using AI for climate action, including the digital divide, data availability and access, data security, gender bias, among others.
- Division: Means of Implementation Division/Technology Sub-Division
- Project Type: Knowledge product
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: AI for climate action
- Related Sustainable Development Goals (SDGs): All, in particular SDG 13 – Climate Action
- Partnership(s)/Collaborator(s): UNIDO
- Relevant Links and Multimedia: <https://unfccc.int/ttclear/tec/AI4climate.html#infonote>
- Contact information: Moritz Weigel (tec@unfccc.int)

Project 4: AI diplomacy toolkit

Project Description: The AI Diplomacy toolkit provides the secretariat with concise and relevant information to support their deliveries, discussions, and decisions. It reduces the time needed to process and analyze textual data, ensuring the extracted information is precise and reliable. The project encompasses four areas: development of official documents, analysis of submissions, analysis of interventions, and tracking of mandates. It integrates political data (e.g., national climate policies and commitments), diplomacy data (e.g., international climate negotiations), and climate data (e.g., GHG inventories) to aid discussions and decision-making. Technologies used include knowledge graphs, knowledge bases, RAGs, and AI agents to create semantic knowledge spaces.

- Division: Mitigation
- Project Type: Databases, visualization, software tools
- Project Status: Ongoing
- Project Start Year: 2022
- Project Domain: Generative AI, Diplomacy
- Technology Platform: Microsoft Azure

- Related Sustainable Development Goals (SDGs): 13, 16
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia:
- Contact information: Joaquim Barris (jbarris@unfccc.int)

2. Related Sustainable Development Goals

All SDGs: SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17

3. Relevant Links

<https://www.unfccc.int/>

https://unfccc.int/ttclear/artificial_intelligence

<https://unfccc.int/ttclear/tec/AI4climate.html#infonote>

Contact information

- Taeyoon Kim (tec@unfccc.int)
- Joaquim Barris (jbarris@unfccc.int)

United Nations Population Fund



1. Description of Activities on AI

Project 1: TABOO

- Project Description: Taboo is a service that offers users relevant information and to easily obtain and visualize disaggregated and significant data about myths and misconceptions of sexual and reproductive health contained in the genuine opinions of the Spanish-speaking population on Twitter.

Through scraping techniques this data is meant to be a complement to the official information gathered by the entities in charge of guaranteeing sexual and reproductive rights in Colombia and other Spanish-speaking countries. In this way, it is possible to obtain a more robust picture of what is happening around this issue, based on this compilation of information to make better decisions when we approach the citizens with new actions and strategies that seek behavioral changes.

Implementing trusted and tailored messages, in the right channels will bust myths and unveil misinformation and help women, young women and adolescents, to exercise their sexual and reproductive health and rights and prevent unwanted pregnancies.

The project is centered in eliminating barriers encountered in the demand of family planning related to taboos, lack of understanding of RH and limited decision making. Since we intend to unveil the myths and misconceptions in family planning, our innovation will contribute to preventing unplanned/unwanted pregnancies.

- Department/Division: Innovation Lab UNFPA Colombia
- Project Type/Output: Dataset; Software tool
- Project Status: Completed
- Project Start Year: 2019
- Project End Year: 2021
- Project updates: Main results: Through Taboo, it was possible to carry out a classification of myths regarding sexual and reproductive health and to collect 212.257 Tweets.

After this first exercise we obtained three categories of myths: 1. Sexually transmitted diseases, 2. Modern contraceptive methods and 3. Unscientific methods of contraception.

From the first category, five major misconceptions were obtained: 1. You cannot get an STI by practicing oral sex, 2. Condoms do not protect people from STIs, 3. Gay people are more likely to get STI's, 4. There is a cure for HIV/AIDS, and 5. Only promiscuous people get STI's, of which 177.522 related tweets were found.

From the second category, 11 great myths were obtained: 1. More babies die from abortion in two days than all deaths from COVID- 19, 2. Abortion is never medically necessary, 3. The use of the pill can cause varicose veins, 8. You should only use the IUD if you have children, 9. Occasionally you should stop taking contraceptives to "clear" or "take a break" from hormones, 10. The morning-after pill causes abortions, and 11. The morning-after pill can be used as a regular contraceptive, of which 20345 related tweets were found.

Finally, from the third category, 6 myths were obtained: 1. The first relationship does not make you pregnant, 2. There are safe days for a woman not to become pregnant, 3. During menstruation a woman cannot become pregnant, 4. Parsley serves as an abortion, of which 14.390 related tweets were found.

Additionally we have arranged the complete database in a dashboard so that it can be explored by users.

This information will allow the UNFPA Colombia office, other spanish-speaking COs and LACRO to better understand the beliefs of the population with respect to sexual and reproductive health, so that from the lack of clear knowledge these beliefs can be broken by means of more accurate messages.

Activities achieved:

- A clear methodology for the collection of information by looking out some fake news.
- An improvement was made to the scraping algorithm to obtain the expansion information on each myth (Retweets, likes, followers).
- The brand identity of the project (brandbook) was designed: identity guidelines, logo, logo marks and color palette.
- A functional microsite was designed and developed, which contains: 1. Technical information that counters the myths in the form of storytelling, 2. Myths Explorer Dashboard and 3. Tweets Explorer Dashboard.
- By updating the scraping algorithm improvements, 3 categories containing a total of 21 myths were obtained.

Three main assumptions tested and proven:

1. People talk and share their beliefs and myths about family planning and contraception on Twitter and Google search:
Our first scrapping process allowed us to get more than 800.000 tweets. It was possible to carry out a classification of myths regarding sexual and reproductive health and to collect 212.257 Tweets.

After this first exercise we obtained three categories of myths: 1. Sexually transmitted diseases, 2. Modern contraceptive methods and 3. Unscientific methods of contraception.

2. There are areas of the country that have different discussions about contraception and sexuality.

Our main finding here is that not just in the same country we can find different myths, also throughout Latin America we discovered diverse myths and discussion about contraception and sexuality. The gathered information enables UNFPA Colombia office, other Spanish-speaking COs and LACRO to better understand the beliefs of the population with respect to sexual and reproductive health. We identified that the borders on the internet are the languages and not the country borders, so we found posts from all the Spanish speaking countries.

3. We can gather the information, including new insights, needed (by user) to build an effective campaign for myth busting through scraping.

The main source of information explored was the Twitter posts (near to 300.000) from July 5, 2007 to December 3, 2020, which contain words that we have identified as relevant and recurrent in conversations about contraceptive myths (our own taxonomy). However, some publications with these same terms try to disprove these misconceptions, not to spread them. The nature of social networks means that we cannot ensure that all trills refer to these myths or want to spread them, which is why in the data exploration tools we have referred to the issues associated with contraceptive myths and not the myths themselves.

We found the next insights related to myths and misconceptions around contraception:

1. You cannot get an STI by practicing oral sex
 2. Condoms do not protect people from STIs
 3. Gay people are more likely to get STI's
 4. There is a cure for HIV/AIDS
 5. Only promiscuous people get STI's
 6. More babies die from abortion in two days than all deaths from COVID-19
 7. Abortion is never medically necessary
 8. The use of the pill can cause varicose veins
 9. You should only use the IUD if you have children
 10. Occasionally you should stop taking contraceptives to "clear" or "take a break" from hormones
 11. The morning-after pill causes abortions, and 11. The morning-after pill can be used as a regular contraceptive
 12. The first relationship does not make you pregnant
 13. There are safe days for a woman not to become pregnant
 14. During menstruation a woman cannot become pregnant
 15. Parsley serves as an abortion
- Project Domain: Education; Health; Human Rights
 - Data Source: Taboo was aimed at searching for information on social networks, specifically on Twitter. More than 330 thousand tweets were collected between July 5, 2007 and December 3, 2020 that were related to sexual and reproductive health and were classified into 3 major areas (Sexually transmitted infections, Non-scientific methods of contraception and Modern methods of contraception).
 - Link to data: <https://datasketch.github.io/unfpa/>
 - Publicly Available Data: Yes
 - Technology/Platform: NLP (Word vectorization), Web Scraping - Python, D3.js, Google Cloud
 - Related Sustainable Development Goals (SDGs): SDG 3 - Good Health and Well-being; SDG 4 - Quality Education; SDG 17 - Partnerships for the Goals
 - Partnership(s)/Collaborator(s)
 - UN Partners: UNFPA Innovation Secretariat
 - Government:
 - Ministry of Health
 - Mayor's office of Bogotá
 - National Planning Department
 - ICT Ministry
 - Secretariat for Youth in Medellín
 - Private Sector: DataSketch
 - Academia: Universidad del Norte (Barranquilla, Colombia)
 - Lessons Learned: *Make sure you have the staff and tools you need:* One of the great lessons we learned during the project was related to human capabilities and technological tools required at the right time. Knowing the resources needed for the project from the beginning allows us to investigate the processes required to obtain them or discover the elements that the Fund already has that can be used. Taboo as a new project in the organization, had administrative processes unknown to the team, which generated reprocessing and delays in service delivery.
Build on what is built: As a great learning process we understood that innovation does not work when it is done individually, in the environment there are multiple actors who

have worked on scraping social networks and discovering myths around sexual and reproductive health, actors who can help others not to make the same mistakes and move forward in an optimal way in the development of the project. Before you invent something "new" look around, explore and be inspired by others.

Involve the users in the whole process: Including the users in the process of creating the project is an essential step that cannot become a barrier to the continuity of the process, it is important to establish the different objectives that you want to achieve with the users in each session to make the most of them and to collect all the valuable information, it is also important to adjust the expectations of the users' participation in each stage of the process, this will guarantee a better appropriation of the service.

- Links and Multimedia:
 - <https://datasketch.github.io/unfpa/>
 - <https://drive.google.com/drive/folders/1qiRe4NkXgEHYb43QCcQB2shMRoLqaWy6?usp=sharing>

Project 2: ECHO: Amplifying citizen's voices for the SDGs"

- Project Description: ECHO is a unique tool that uses Automatic Speech Recognition, Cognitive Computing, and Data Analytics to improve the efficiency in processing large amounts of information in real-time. ECHO collects information from individuals of all backgrounds, including minorities and vulnerable populations

ECHO is a tool powered by artificial intelligence that promotes citizens' participatory planning and awareness about the SDGs through real-time guided public discussion. ECHO is seeking to link conversational and informal citizen's language to SDGs language using a classification model, developed by UNFPA Colombia. After the first phase of the implementation of the interviews in Medellín through ECHO, we obtained, among other things:

- More than 4,800 guided discussions were carried out, whose results in 56.22% were performed in women and 43.8% in men. Of the total number of respondents, 44.8% were young and 18.3% were older adults.
- A pact for the SDGs was signed by more than 10 public institutions in Antioquia. These entities include Antioquia Governorate, National Police, EPM, Medellín Metro, Metropolitan Area of the Aburrá Valley, Inder, Medellín City Council, Teleantioquia and TeleMedellín, which makes Medellín the first city in Colombia to use AI to make better public policies and make deep commitments around the 2030 Agenda.
- A draft of a Dashboard of the SDGs related to the main concerns of the people in these areas. It also contains a call to action and "What to do" related to the SDGs that resulted from the analysis.
- Data collection campaigns have been conducted in many new cities such as Cartagena, Villavicencio, and the Venezuelan immigrant population in Medellín. Thus obtaining more than 3,000, 15,000 and 1,200 new testimonies in each city respectively.

The process will cover groups of populations of Medellín, Bogotá and Cartagena, three different zones and two of the largest cities of Colombia.

- Project Type (Status): Software project (Deployment)
- Project Domain: Participatory planning, Freedom of Speech
- AI approach: Automatic Speech Recognition, Cognitive Computing, Natural Language Processing (NLP)
- Technology: GraphQL, Deep Learning IA, live speech to text
- Datasets: ECHO stores all recorded and processed voice information (with NLP technology) in a structured manner. This then involves a large amount of information from recorded voice testimonials converted to text, stored as documents in noSQL databases.

- Related Sustainable Development Goals (SDGs): All SDGs, especially SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s): UNFPA Innovation Secretariat, Antioquia Governorate, National Police, EPM, Medellín Metro, Metropolitan Area of the Aburrá Valley, Inder, Medellín City Council, Teleantioquia, TeleMedellín
- Links and Multimedia: www.echo-vis-2020.herokuapp.com, Echo Interviewer System: www.echo.carinalab.co. If you are interested and want to get access please write an email to nieto@unfpa.org, <https://echo.carinalab.co/#/mMedellin1>, Social Media Data Scraper (Beta): <http://165.227.124.98/tweetsunfpa/>
- Challenges: a) The urgency to achieve our organizational priority areas and leverage the power of AI toward that end. b) The prevalence of myths and misconceptions about contraceptives. c) The prevalence data and visualization. d) Humanitarian crisis: internal and external migration
- Opportunities: a) To accelerate our mandate through AI and cutting-edge technologies. b) The improve our impact including BC and C4D campaigns through among others the internet and social network messages, radio, public tv channels, public spaces, etc.

Project 3: Big Data for Family Planning Inequalities Analysis (BiDaFPInAs)

- Project Description: The Big Data for Family Planning Inequalities Analysis (BiDaFPInAs) project aimed to capture social media conversations of Filipinos about family planning and develop a machine learning (ML) algorithm that converts those conversations to insights. These insights helped provide real-time data on awareness and perception of Filipinos about family planning to government planners. Using appropriate keywords and filters, the system was programmed through a series of iterations to identify levels of awareness and perception of Filipinos on family planning.
- Department/Division: UNFPA Philippines
- Project Type/Output: Dataset and Analysis, Data Visualisation and Dashboard
- Project Status: Ongoing
- Project Start Year: 2019
- Project End Year: 2022
- Project Updates:

Through BiDaFPInAs, a social media dashboard was developed to capture and broaden the scope of data on Family Planning among key population groups. Social media data was harnessed to provide insights that improve the planning, targeting and execution of Family Planning programs in the Philippines.

The initial phase of analysis explored the wider dataset that included publicly available tweets, posts, and comments; however, this approach led to poor data quality that made the management of data and the generation of useful insights very challenging. By working with an implementing partner and an academic expert, and with a focus on the data from Reproductive Health Care Info, a Facebook community dedicated to family planning (FP), the analysis of FP-related social media posts was completed at the end of 2021. Another challenge was the difficulty in accessing and using social media data due to data privacy concerns.

The evidence generated from the analysis validated social media as a means to connect Filipinos into several networks, which then facilitated knowledge generation and sharing as to the benefits and disadvantages of FP. More importantly, it suggests the usability of the Big Data Sentiment Analysis platform and likewise recommends a more targeted approach of pre- identifying family planning related social media accounts in order to more effectively capture and analyse the needed data.
- Project Domain: Health
- Datasets: Social Media (Twitter and Facebook)
- Publicly Available Data: No

- Partnerships and Collaborators: Philippine Legislators Council for Population and Development (PLCPD)
- Related Sustainable Development Goals: SDG 3 (Good Health and Well Being), SDG 5 (Achieve Gender Equality and Empower All Women and Girls)

Project 4: Hayati Chatbot

- Project Description: 'Hayati', meaning 'my life' is a mobile application developed by Men4Women in collaboration with UNFPA South Sudan. The chatbot is a way forward for South Sudan given the increase in technology and phone user uptake across the country. The chatbot is critical for the need to provide young people with a platform where they can access SRH and GBV information confidentially from wherever they are.
The chatbot was developed as Android based Mobile Application with integrated services and features such as, Integrated Interactive Voice Response (IVR) through the National Helplines, location pinning allowing person receive corresponding information, and analytics describing which services have been assisted by chat.
- Department/Division: UNFPA South Sudan and Innovation Unit UNFPA ESARO
- Project Type/Output: Data visualisation, AI Chatbot
- Project Status: Not active.
- Project Start Year: 2022
- Project End Year: 2023
- Project updates:
- Project Domain: NA
- Related Sustainable Development Goals (SDGs): SDG 3, 4, 5, 9
- Partnership(s)/Collaborator(s):
 - Men4Women - Youth tech startup supported by UNFPA South Sudan
- Links and Multimedia: NA
- Contact information: Shruti upadhyay - shupadhyay@unfpa.org, Sydney Hushie- hushie@unfpa.org

Project 5: SophiBot

- Project Description: Sophie Bot is an AI application that directly answers SRHR questions in a private and confidential way. The information is pre-fed in the platform and in instances where no response is provided, the user is linked to a direct chat where they are able to communicate with someone to receive the correct responses and also join the discussion forum. Sophie Bot can also be accessed through Messenger, Telegram or Twitter. The solution seeks to address poor SRH outcomes among young people attributed to inadequate access to comprehensive and correct information on SRH. In Kenya, it is estimated that one in every five teenage girls between the ages of 15-19 years is either pregnant or has had their first child while 51% of new HIV infections occur among young people between the ages of 15-24.
- Department/Division: UNFPA Kenya
- Project Type/Output: AI Chatbot
- Project Status: Ongoing
- Project Start Year: 2016
- Project End Year: NA
- Project updates: Since the launch of SophieBot in 2016:
 - SophieBot has been asked over 38,000 questions by over 3000 users;
 - \$40,000 raised through the KCB Lions Den Show;

- Enrolled in the Merck Accelerator Program (3 months acceleration cycle);
- Awarded the Microsoft Insiders4Good East Africa Fellowship, which grants support from Microsoft and the broader Windows Insider community including hardware, software, tailored mentorship and access to Microsoft's global network;
- Enrolled in the SRHR Africa Trust leadership programme for building capacity for advocacy in sexual and reproductive health rights.
- Featured in national television and other media
- Project Domain: Youth, Reproductive Health
- Related Sustainable Development Goals (SDGs): SDG 3, 4, 5, 9
- Partnership(s)/Collaborator(s):
 1. Nailab
 2. National AIDS Council - Kenya,
 3. Discover JKUAT
- Links and Multimedia:
 - <http://misssophiebot.com/>
 - <https://www.theguardian.com/careers/2018/feb/21/sex-education-at-the-push-of-a-button-the-apps-changing-lives-worldwide>
- Contact information: Shruti upadhyay - shupadhyay@unfpa.org, Sydney Hushie- hushie@unfpa.org

Project 6: #TECH4YOUTH AND #NLP SOLUTIONS TO AMPLIFY SRHR ACCESS AND ACCELERATE THE ACHIEVEMENT OF #SDG3

- Project Description: The number of languages spoken in Africa varies between 1,000 to 2,500, depending on different estimates and definitions. Almost half (48 per cent) of Sub-Saharan African countries have an African language that is spoken by over 50 per cent of the population as a mother tongue. With the additional secondary speakers sometimes at mother-tongue proficiency level, the proportion increases to more than two-thirds (67 per cent). Sixteen of Africa's shared cross-border languages have more than 150 million speakers. Outside the education sector, at least 56 African languages are used in administration and at least 63 African languages are used in the judicial system (26 sub-Saharan nations allow African languages in legislation). In written business communication, at least 66 African languages are used, and at least 242 African languages are used in the mass media. In short, the existence of so many languages within a single country and their right not only to survival but also to development represent a matter of importance that has to be considered over and above the categories into which they fall. This diversity is in itself perceived as an inherent challenge in matters of communication, governance and education. Such a multiplicity is perceived as a communication barrier and viewed as synonymous with conflicts and tension but also a great opportunity to spread messages and information till the last mile. Five UNFPA country offices, BENIN, TOGO, GHANA, BURKINA FASO, and NIGERIA, have decided to work collaboratively to use technology-based solutions in Adolescent and Youth Sexual and Reproductive Health (AYSRH) to improve knowledge and access to information. In order to reach all youth, especially those left behind, the innovation and technology team set out to integrate natural language processing (NLP) in four local languages (Fon-Gbe, Hausa, Fulfulde, and Yoruba) into their existing digital solutions.
- Department/Division: UNFPA Benin, Burkina Faso, Ghana, Nigeria and Togo
- Project Type/Output: Natural language processing, AI Algorithm
- Datasets: 25 hours of professional Hausa audio for text to speech, french and english with African accent licences

- Project Status: Ongoing
- Project Start Year: 2019
- Project End Year: N/A
- Project Domain: SRHR education
- UN partner: ITU
- Partnership(s)/Collaborator(s)/: Tsinghua University, Dorabot, W.B, European Institute of technology, Voxygen, Etrilabs, Africa Design School
- Project updates : Due to the lack of data on African languages and to accelerate the development of this NLP solution, we are establishing a research & development partnership with European Institute of technology on BIG Data and AI issues so that, through its specialized Data/AI Masters, students can undertake research specifically on automatic translations into natural language support from UNFPA Benin.
- Links and Multimedia:
- Contact information: Wilfried ROUAMBA- rouamba@unfpa.org , Djawad RAMANOU -djawad@unfpa.org, Wilfried GOSSAN- gossan@unfpa.org

Project 7: AMMA App - Period & Pregnancy Tracker

- Project Description: "Amma" is an international mobile application that allows women and their families to have an informed, safe, and healthy pregnancy. The application, which continues to work in cooperation with UNFPA Eastern Europe and Central Asia Regional Office (EECARO), provides information sharing in a wide scope. Within the application, detailed information can be obtained about the development of the baby, the changes that the mother may experience during pregnancy, and nutrition & moods. In addition, with the AI technology created, the weight gain and abdominal growth of the expectant mother are controlled, and pregnant women can count the contractions they experience and send their data to their doctors. The application also contains high-quality ultrasound images and explanations. In addition, there is a personal calendar for each day of pregnancy with reminders for medications and mood changes.
With the support of UNFPA EECARO, additional content in mobile applications is created to convey more accurate information on safe pregnancy, prenatal care, and sexual and reproductive health. With the AI technology to be developed, it is aimed to conduct joint research to understand user information, behavior, and information needs on maternal health, sexual reproductive health, and gender issues.
- Department/Division: UNFPA Eastern Europe & Central Asia Regional Office (EECARO)
- Project Type/Output: Mobile Application
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: N/A
- Project updates:
 - Amma currently has 1.5 million active users. The partnership with UNFPA has been able to feed quality SRHR-related content to the application, which has potentially reached the users of the app. UNFPA plans to expand the partnership and tap into the potential the app provides to reach users with accurate SRHR information and data.
 - The Amma app is downloaded by 10 mln pregnant women every year (or 7% of all pregnant women in the world). As content is provided in 13 languages, there are users in almost all countries of the world.
 - With UNFPA support, 3 articles have been published and 12 more topics will be covered before the end of the year. So far, the published articles have had close to 5,000 active engagement with Amma users.
- Project Domain: Education; Sexual and Reproductive Health

- Related Sustainable Development Goals (SDGs): SDG 3, 4, 5
- Partnership(s)/Collaborator(s):
 - Private Sector (Financial Support) - PERIOD TRACKER & PREGNANCY AND BABY CALENDAR LIMITED
- Links and Multimedia: <https://amma.family/#landing>
- Contact information:
 - Tamar Khomasuridze - khomasuridze@unfpa.org, UNFPA EECARO

Project 8: Just Ask! Khulke Poocho! AI Chatbot

- Project Description: UNFPA India's Just Ask!: The 'Just Ask!' Chatbot, launched by UNFPA in India, is an AI-driven digital platform tailored for adolescents, young adults and couples, aimed at enhancing their understanding of sexual and reproductive health and rights. This initiative offers a safe, confidential, personalized, and non-judgmental space for young adults and adolescents to access expert-validated reliable information, dispel misconceptions, and seek services related to their sexual and reproductive well-being, such as accessing health facilities and helplines. The chatbot is part of the project "My Rights, My Choices" aimed to increase awareness and access to SRHR services and is co-financed by Bayer.

The digital engagement platform is designed on the principles of behavioral science, user-centered design, data security and Artificial Intelligence aligned to the UN 2.0 Quintet of Change. The Chatbot has been developed by UNFPA experts and was launched in collaboration with National Health Mission (NHM), State Government of Madhya Pradesh in July 2023.

The chatbot is designed to encourage informed decision-making and foster interest in often misunderstood or stigmatized topics such as puberty, menstruation, sexual and gender identity, safe sex, and contraception. The platform will also introduce more topics such as safe cyber use (highlight areas around TF-GBV) and mental health in 2024. Adhering to UNFPA's guidelines for the safe and ethical use of technology, the chatbot prioritizes user data privacy in its design, ensuring a secure and responsible digital experience for its users. This project reflects UNFPA's commitment to using digital innovations as an accelerator to promote sexual and reproductive health among young people, particularly in settings where access to accurate and comprehensive health information is limited.

- Location/Country Office: UNFPA India
- Department/Division: Innovation Unit in collaboration with Programme, State and Resource Mobilization & Partnership Units
- Project Type/Output: My Rights, My Choice - Increasing awareness and access to SRHR services
- Datasets:
 - Content - The content for the AI chatbot was designed in accordance with the Ministry of Health & Family Welfare (MoHFW), Government of India guidelines and International Sexuality Guidelines. The dataset was validated by SRHR experts and agencies specialized in this domain. Currently, the chatbot has accumulated over 2.8 million user queries and continues to enhance its dataset regularly.
 - Technology - The chatbot is built on an open source AI-tech stack and operates within the predefined content boundaries. It has been deployed on WhatsApp platform considering its wide user base in India.
- Project Status: On going
- Project Start Year: 2023
- Project End Year: 2025

- Project Domain: SRHR and Innovations
- UN partner: none
- Partnership(s)/Collaborator(s)/: Bayer AG, Amazon Web Services (AWS), State Government of Madhya Pradesh and Rajasthan (India)
- Project updates:
 - Co-designed and Piloted in 2023 with 500 adolescent and young adults.
 - Currently scale up across all states in India, with targeted outreach in 22 States with aim of reaching 1mn users by 2025 across India. Till March 2025, the chatbot had engaged over 140,000 users across varied geographies and backgrounds. It has also processed 2.20+ million queries. Topics most frequently explored include menstruation, contraceptive options, and safe relationships. Notably, 77% rated their experience 2 stars or above out of 3, and a 44% quarterly retention rate suggests recurring engagement and continued relevance. This speaks to the platform's effectiveness not just as an informational tool, but as a trusted digital source.
- Links and Multimedia:
 - <https://india.unfpa.org/en/just-ask-chatbot>
 - <https://www.unfpa.org/updates/india-unfpa-launches-just-ask-chatbot-sexual-and-reproductive-health-and-rights>
- Contact information: Sahil Kapoor, kapoor@unfpa.org, Swati R Dutt, dutt@unfpa.org

Project 9: NeMa Smartbot in India

- Project Description: Recognizing the critical role of skilled midwives in reducing maternal and newborn mortality, UNFPA and Organon partnered with the Maternity Foundation to enhance their Safe Delivery App with an innovative AI-powered service, the "NeMa Smartbot." Developed by Neuvo Inc. Global, this initiative aimed to strengthen midwifery knowledge and skills in resource-limited environments with artificial intelligence, and to provide real-time, evidence-based answers on pregnancy and childbirth. Designed with an ethical approach to AI and data, the smartbot functions offline and uses clinically verified material, ensuring reliable access in areas with limited connectivity. The initial pilot, involving healthcare professionals in Punjab, India, and financed by Organon, mark a significant advancement in using technology to improve maternal and newborn health, especially in underprivileged regions. UNFPA's facilitation of this project underscores its commitment to reducing global maternal and newborn mortality and highlights the potential for AI to transform healthcare education and delivery in challenging environments.
- Location/Country Office: India
- Department/Division:
- Project Type/Output: AI enabled capacitation for midwives
- Datasets:
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: N/A
- Project Domain: SRHR
- UN partner: UNFPA
- Partnership(s)/Collaborator(s)/: Maternity Foundation, Neuvo Inc.
- Project updates: The project concluded in December 2024, after two successful pilot rounds were conducted in India, engaging over 100 healthcare workers. Key technical achievement was significant reductions in the bot's training time and file size, ensuring

robust offline functionality on basic smartphones – a crucial feature for low-resource settings. Final user testing yielded overwhelmingly positive results, underscoring the technical feasibility and value of the NeMa Smartbot for healthcare professionals. With a fully functional and well-received bot, the solution is positioned for further scaling across India, capitalizing on the nation's digital health infrastructure, or beyond. The successful scaling of the solution is contingent on securing contributing partners to contextualize remote and fragile contexts.

- o Links and Multimedia: <https://www.unfpa.org/updates/unfpa-and-organon-support-maternity-foundation-using-ai-strengthen-midwifery-skills>

<https://www.maternity.dk/maternity-foundation-and-neuvo-inc-global-launch-new-ai-tool-to-ensure-safer-childbirths-in-low-resource-settings/>

- Contact information:
 - o Maternity Foundation: Head of Communications, Helle Degn: helle@maternity.dk / www.maternity.dk
 - o Neuvo Inc. Global: Data Ethics and Communications Specialist, Ada Kangas: ada.kangas@neuvo.ai / <https://neuvo.ai/>
 - o UNFPA: Chief, Innovation Unit, Nigina Muntean: muntean@unfpa.org / <https://www.unfpa.org/innovation>

Project 10: BabyChecker

- Project Description: The UNFPA Honduras Country Office is utilizing advanced AI technology to address maternal health challenges, especially in remote areas with limited healthcare services. The AI-powered tool, "BabyChecker", enables individuals without specialized knowledge in prenatal care to effectively conduct ultrasounds on pregnant women. This technology can estimate the gestational age of the fetus, detect whether there is more than one fetus, determine potential delivery risks due to fetal positioning, and identify early warning signs that require specialist referral. This initiative aims to significantly enhance maternal and prenatal care in resource-limited settings, demonstrating the potential of AI to bridge gaps in healthcare accessibility and quality.
- Location/Country Office: Tegucigalpa, Honduras
- Department/Division: Sexual Reproductive Health component
- Project Type/Output: Pilot Project for the use of AI in medical services to Reduce Maternal Mortality
- Datasets:
- Project Status: Ongoing
- Project Start Year: Initiated in 2023 with a formal agreement between the Ministry of Health of Honduras (SESAL), Delft Imaging and UNFPA to initiate the use of BabyChecker, an AI application to collect data and help utilize the use of the equipment to detect early signs of potential risks for the mother and the fetus.
- Project End Year: 2025
- Project Domain: Country level in Honduras
- UN partner: UNFPA Honduras country office
- Partnership(s)/Collaborator(s): Delft Imaging <https://www.delft.care>
- Project updates:
- Links and Multimedia:
- Contact information: Silvia Padilla - spadilla@unfpa.org

Project 11: UNFPA ESARO's iSAY

- **Project Description:** UNFPA's East and Southern Africa Regional Office's AI-based platform, iSAY - Intelligent Sentiment Analysis on Youth and SRHR Platform, employs advanced machine learning and natural language processing to monitor and analyze public dialogues and social media trends related to adolescent sexual and reproductive health and rights (ASRHR). This innovative platform filters relevant content, classifies opinions and information into categories, and extracts key insights, enabling UNFPA to make real-time program predictions, follow-ups, and recommendations based on credible data from diverse sources. iSAY's capabilities include temporal analysis of conversations, intent detection, sentiment analysis, gender gap analysis, age filtering, and geographical analysis, making it a comprehensive tool for understanding and addressing ASRHR issues. Additionally, its expandable nature allows for potential application in other areas, reflecting its utility across UNFPA's various mandate areas.
- **Location/Country Office:** UNFPA ESARO - covering all 23 countries in the region
- **Department/Division:** ESARO Youth and Innovation unit
- **Project Type/Output:** Data Visualization
- **Datasets:**
 - Data is collected daily from online conversations in publicly available sources, including Twitter, Facebook public pages, online forums, news comments, and blogs.
 - More specifically, from each data source we collect the following information:
- **Twitter:** All the comments in the country of interest that mention the defined keywords.
- **Facebook:** A list of Facebook Public Pages of interest and comments on those pages.
- **Web content:** Comments on websites, news, blogs and forums that mention the defined keywords.
- **Project Status:** ongoing
- **Project Start Year:** 2023
- **Project End Year:** NA
- **Project Domain:** (not publicly available)
- **UN partner:** none
- **Partnership(s)/Collaborator(s):** Citibeats (service provider)
- **Project updates:** NA
- **Links and Multimedia:** NA
- **Contact information:** jost@unfpa.org and hushie@unfpa.org

Project 12: SHAMA Robot

- **Project Description:** SHAMA, launched in 2020 amidst the COVID-19 health emergency and during the 16 Days of Activism against Gender-Based Violence, is Morocco's first 100% Moroccan female robot. This innovative AI-driven project, a collaboration between UNFPA and the University Cadi Ayyad in Marrakech, addresses the critical issues of gender-based violence and child marriage, which significantly impact women and girls in Morocco. Alarming statistics reveal that over half of Moroccan women experience violence, and the country faces a 9% prevalence rate of child marriage. SHAMA's mission is to leverage artificial intelligence for social advocacy, raising awareness and combating discrimination against women and girls. Through the #JoinSHAMA digital campaign, decision-makers, partners, and opinion leaders united to amplify the message against violence and harmful practices. SHAMA's powerful Arabic message resonated across social media, reaching over 170,000 individuals. Furthermore, this initiative showcased women's leadership in AI, with Ms. Hajar Mousannif, the project lead, receiving the 2020 WomenTech Global AI Inclusion Award

- Key features: SHAMA is a 100% Moroccan woman-robot capable of recognizing objects, reacting to human emotions, and interacting in Arabic. It is based on open-source technologies and advanced AI algorithms.
- Department/Division: UNFPA Morocco Innovation and Gender Units/Communication
- Project Type/Output: The project involves using AI to reinforce gender equality and combat gender-based violence through robots.
- Project Status: The partnership with SHAMA and UNFPA came to a close after the 16 Days of Activism campaign.
- Project Start Year: 2020 (launched during the 16 Days of Activism against gender-based violence).
- Project End Year: December 2020
- Project updates: The collaborative partnership with SHAMA and UNFPA concluded following the 16 Days of Activism campaign. However the project continued to gain traction. The university has secured a \$100,000 grant from FotaHub, Inc. to develop SHAMA 2.0, an upgraded version with enhanced connectivity features, ensuring continued innovation in gender-focused AI tools.
- Project Domain: Artificial Intelligence, Gender Equality, and Women's Rights.
- Related Sustainable Development Goals (SDGs): SDG 5: Gender Equality
- Partnership(s)/Collaborator(s): University Cadi Ayyad, Marrakech: Led by Ms. Hajar Mousannif, AI Researcher and Associate Professor. FotaHub, Inc.: Provided a \$100,000 grant for SHAMA 2.0 development. UNFPA Morocco: Supported the initiative as part of its innovation and gender equality efforts.
- Links and Multimedia
 - UNFPA Morocco Video: Join SHAMA for Zero Tolerance to Gender-Based Violence <https://morocco.unfpa.org/fr/video/joinshama-pour-une-tol%C3%A9rance-z%C3%A9ro-%C3%A0-la-violence-bas%C3%A9e-sur-le-genre>
 - UN Morocco Article: UNFPA Partners with Moroccan AI <https://morocco.un.org/fr/102005-unfpa-s%E2%80%99associe-%C3%A0-l%E2%80%99intelligence-artificielle-marocaine>
- Contact information:
 - Sanaa Al-Akel - elakel@unfpa.org;
 - Omnya Nasr - omhassan@unfpa.org
- Lessons Learned: The collaboration between UNFPA Morocco and the University Cadi Ayyad to develop SHAMA, a humanoid robot advocating against gender-based violence, underscores the transformative potential of merging innovative technologies with social advocacy. By leveraging artificial intelligence in the form of a culturally resonant, Arabic-speaking robot, the initiative demonstrated how technology can amplify critical messages about gender equality and discrimination. Key takeaways from this project include:
 - SHAMA's unique design, a 100% Moroccan female robot, proved highly effective in capturing public attention, particularly among youth, who are often more receptive to technology-driven communication. This suggests that unconventional tools can foster deeper engagement.
 - The partnership between UNFPA, academia, and private funding (e.g., FotaHub, Inc.) highlights the importance of collaborative ecosystems in advancing AI for social good. However, aligning priorities among stakeholders remains critical, as evidenced by challenges in sustaining the university partnership during COVID-19.

Project 13: GENAIE (Generative Artificial Intelligence for Education)

- **Project Description:** Generative Artificial Intelligence for Education (GENAIE) is an AI-enabled eLearning initiative piloted by the ESARO maternal health and innovation teams. It assists in creating e-learning modules on diverse topics in local languages quickly. Ethiopia and Tanzania are currently piloting this initiative in collaboration with their respective governments and midwifery associations. GENAIE is a promising tool to enhance the health workers capacity by providing large volumes of high-quality, consistent e-learning and training content rapidly, helping healthcare professionals stay updated with the latest standards, guidances and regulations. The generated content is systematically planned and tailored for appropriate learning, fully customizable and editable and can be easily embedded in an e-Learning management system.
- **Key Features:**
 - Generates high-quality training and education content in minutes.
 - Systematically planned resources tailored to key target audience appropriate learning.
 - Fully customizable and editable content.
 - Available in more than 104 languages.
 - Available in multiple formats including HTML5, PDF, MP4, SCORM, and more.
 - Ongoing assessment.
 - Content moderation to filter out unsafe content.
 - High content accessibility due to compliance with WCAG 2.1 guidelines.
 - Personalized content suited to learner's interests.
 - In-depth content as per learner's skills and capabilities.
 - Custom learning levels.
 - Support system for teachers and keyworkers.
- **Department/Division:** ESARO (maternal health and innovation teams)
- **Project Type/Output:** AI-enabled eLearning content generation platform.
- **Project Status:** Piloting
- **Project updates:** Currently piloting in Ethiopia and Tanzania with government involvement.
- **Project Domain:** Education, Healthcare.
- **Partnership(s)/Collaborator(s):** University College London (UCL), governments of Ethiopia and Tanzania.
- **Related Sustainable Development Goals (SDGs):** Information not available in the provided text, but likely related to SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education).
- **Lessons Learned:** Generative AI holds immense potential for countries, but its introduction has revealed several key lessons, particularly in contexts where adoption has been slow. A crucial bottleneck is the lack of a skilled in navigating through the digital module development and limitation of e-learning management system.
- **Links and Multimedia:** [Video record of an onboarding training](#)
- **Contact Information:** abdullah@unfpa.org

2. Related Sustainable Development Goals

All SDGs: SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17

3. Relevant Links

- <https://www.unfpa.org/>

- Contact information: Jaime Aguirre (jaaguirre@unfpa.org)

United Nations Global Compact



United Nations
Global Compact

1. Description of Activities on AI

Project 1: Generative AI for the Global Goals: The Private Sector's Guide to Accelerating Sustainable Development with Technology

The private sector, responsible for more than 60% of global GDP, is the largest player in production of goods and services worldwide. As a driving force behind innovation and the explosion of Generative AI (Gen AI), the private sector has a unique opportunity to lead the way in harnessing this technology for sustainable development.

In September 2024, the UN Global Compact, in collaboration with Accenture, released a new report – titled "Generative AI for the Global Goals: The Private Sector's Guide to Accelerating Sustainable Development with Technology" – to guide business leaders on how to leverage generative AI as a transformative force for advancing the SDGs by 2030.

This comprehensive report features actionable strategies, real-world case studies and insights on managing the risks associated with Gen AI. In addition, the report highlights insights from private sector leaders on their Gen AI journey and provides ready-to-use resources to help businesses implement Gen AI responsibly.

While recognizing the huge potential generative AI offers, the report also cautions against its risks. It provides a robust framework for companies to implement generative AI responsibly, emphasizing the importance of human oversight, ethical governance and the alignment of AI strategies with the Ten Principles of the UN Global Compact. The report calls on businesses to take bold, ambitious actions to bridge the gap between current efforts and the 2030 Agenda for Sustainable Development.

Key findings include:

- **Operational Efficiency:** The report dives into how generative AI can help businesses improve predictive analytics and maintenance, thereby lowering energy use and downtime. This effort is critical as companies seek to manage limited resources to achieve sustainable and consistent results within both financial and environmental limits.
- **Sustainable Value Chains:** Generative AI can enable businesses to conduct comprehensive lifecycle assessments, identify and mitigate risks in procurement and engage suppliers on sustainable practices. For example, advanced AI tools are being used to track carbon footprints across complex global supply chains – helping ensure suppliers at all levels follow high sustainability standards.
- **Innovation for Sustainable Solutions:** Companies can use generative AI to rapidly prototype and deploy sustainable solutions that meet emerging social and environmental needs. This is possible by speeding up research and development, as well as product and service design, especially in green finance and sustainable materials.

- Communication and Reporting: Effective communication and reporting of financial and non-financial data has become increasingly important as added regulations take root globally. By automating data collection, analysis and report generation, generative AI can revolutionize sustainability reporting, increase literacy across the organization on sustainability measures and help comply with regulatory frameworks.

2. Related Sustainable Development Goals

All 17 Sustainable Development Goals

3. Relevant Links

Relevant Links:

- UN Global Compact: <https://unglobalcompact.org/>
- Report: <https://info.unglobalcompact.org/gen-ai-for-global-goals>

Contact Information

- Tonilyn Lim (tonilyn.lim@un.org)

United Nations Global Pulse



1. Description of Activities on AI

Project 1: Data Insights for Social and Humanitarian Action (DISHA): AI-assisted Damage Assessment Solution

- Project Description: Damage assessments are widely used in the humanitarian sector for response planning and aid allocation following natural disasters. The Damage Assessment solution uses AI models to help identify damaged buildings from high-resolution satellite imagery. The use of assistive AI technology enables human analysts to assess damages significantly faster and cover a much broader impacted area than would be feasible with a manual-only approach. The Damage Assessment solution makes use of three advanced models by Google Research: Open Buildings, SKAI Zero-Shot and the SKAI Fine-Tuned model.

Open Buildings – Pre-trained vision model that can detect and segment building structures in high resolution satellite images.

SKAI Zero-Shot – Pre-trained vision model that can identify damaged buildings in satellite images. The generated heatmaps can quickly highlight areas that may require priority in assessment and relief efforts.

SKAI Fine-Tuned – Developed and open sourced in collaboration with the United Nations World Food Program (WFP) Innovation Accelerator, the supervised model can classify building damage in satellite images after being fine-tuned with images from the disaster being assessed and analyst-provided labels. This provides comprehensive information on damaged buildings.

- Department/Division : Executive Office of the Secretary General
- Project Type/Output: Software solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Ongoing with various UN partners on a needs-based system
- Project updates: Over the past year we have partnered closely with Google Research and UNOSAT in order to test and improve the performance of the solution. To evaluate the solutions' performance, the team at UNOSAT compared the results of AI-assisted damage assessments with fully manual assessments across nine recent natural emergencies. Our preliminary assessments of SKAI's capabilities using UNOSAT damage assessment reports provided numerous insights. We found that, on average, the solution allowed us to expand the area of analysis by a factor of 7, while reducing the time required to produce directional findings on damage assessment by a factor of 6, bringing it to under a day.

When evaluating the accuracy of the SKAI output in identifying building damage at a granular level, we observed that the scarcity of damaged buildings relative to undamaged ones can hinder performance. In our tests, providing SKAI with a sufficiently large and balanced sample of damaged and undamaged buildings was key to achieving an

accuracy of 0.75 and above (with 1 being perfect accuracy). Increasing the number of damaged buildings in the sample further improved the accuracy.

- Project Domain: Crisis response and humanitarian assistance
- Data Source: Satellite data
- Publicly Available Data: No
- Technology/Platform: Python, Javascript, TensorFlow, PyTorch, Keras, AWS
- Related Sustainable Development Goals (SDGs): SDG 10 Reduced Inequality; SDG 13 Climate Action; SDG 17 Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - UN Partners: UNOSAT, WFP
 - Private Sector: Google
- Links:
 - <https://disha.unglobalpulse.org/our-products/>
 - <https://disha.unglobalpulse.org/ai-from-google-research-and-un-boosts-humanitarian-disaster-response-wider-coverage-faster-damage-assessments/>
- Lessons Learned:
 - Imagery Standardization: UNOSAT utilizes satellite imagery from various satellites, each with different formats and specifications. To maximize the effectiveness of the SKAI model, these images need to be standardized to an 8-bit depth RGB format. While this can be time-consuming, it is an important step in ensuring consistent and accurate results.
 - Handling Insufficient Training Examples: As observed, our most effective models require at least 500 examples per class to perform well. However, some areas of interest in UNOSAT's damage assessment reports may not provide enough examples to meet this threshold, limiting the model's ability to learn effectively.
 - Ensuring Representative Sampling: Understanding the underlying data distribution is crucial to ensuring that the sampled data is representative of the entire dataset. Addressing this challenge may help minimize biases and improve the model's overall effectiveness.
- Contact information: Katya Klinova (ekaterina.klinova@un.org)

Project 2: Data Insights for Social and Humanitarian Action (DISHA): Socio-economic Mapping Solution for the Philippines

- Project Description: Whenever a disaster hits, the DISHA Socio-Economic Mapping dashboard is ready to be used by first responders. It allows a user to view dynamic maps for Population Movement and Poverty Nowcasting which are based on anonymized and aggregated insights derived from mobile phone use data.
 The Population Movement view is a heatmap highlighting regions with abnormal movement of people in and out of regions. The Poverty Nowcasting insights are constructed using machine learning models trained on government census data, trends derived from telecommunications data, as well as other anonymized signals as inputs.
- Department/Division : Executive Office of the Secretary General
- Project Type/Output: Software solution
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Ongoing with various UN partners on a needs-based system

- Project updates: In 2024, UN Global Pulse, the UN Secretary-General's Innovation Lab, signed a landmark pro-bono data sharing agreement with the Philippines' leading telecommunications provider Globe Telecom, Inc. Globe became the first mobile network operator to become a coalition partner in DISHA (Data Insights for Social & Humanitarian Action), a multi-partner initiative led by UN Global Pulse, which brings together humanitarian organizations, AI researchers, data providers, funders, and private sector partners to accelerate access to responsibly leveraged AI and data for disaster response. Access to Globe's data allows DISHA to provide humanitarian organizations with dynamic insights on population movement patterns refreshed daily and estimated poverty levels refreshed fortnightly.
- Project Domain: Crisis response and humanitarian assistance
- Data Source: Anonymized mobile phone transaction data (call detail records, top-ups, etc)
- Publicly Available Data: No
- Technology/Platform: React, AWS
- Related Sustainable Development Goals (SDGs): SDG 10 Reduced Inequality; SDG 13 Climate Action; SDG 17 Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - UN Partners: UN OCHA
 - Private Sector: McKinsey and Co, QuantumBlack by McKinsey
 - International NGOs: Catholic Relief Services
- Links:
 - <https://disha.unglobalpulse.org/our-products/>
 - <https://disha.unglobalpulse.org/globe-telecom-inc-joins-the-disha-partners-coalition-to-bring-dynamic-population-mobility-and-vulnerability-insights-to-the-philippines-humanitarian-community/>
- Lessons Learned:
- Due to the complex nature of data sharing agreements, significant efficiency gains can be achieved when multiple UN agencies can access standardized insights leveraging a single agreement negotiated by a centrally-placed initiative like DISHA.
- Contact information: Katya Klinova (ekaterina.klinova@un.org)

Project 3: Operational response simulation tool for epidemics in refugee and IDP settlements

- Project Description: The spread of infectious diseases presents many challenges to healthcare systems across the world. Given their density and available infrastructure, refugee and internally displaced person (IDP) settlements can be particularly susceptible to the dangers of disease spread.
 Since the beginning of 2020, we have been working with public health decision-makers to seek to understand how COVID-19 spreads in these settlements. We initially focussed our efforts on the Cox's Bazar settlement in Bangladesh, working with teams from UNHCR and WHO, and have since performed modeling of other settlements around the world. Our model simulates the movements and interactions of each individual in the settlement, incorporating information about family structures and demographic attributes, to understand how COVID-19 might spread under various intervention strategies and scenarios.
 During the height of the pandemic we worked on simulating the effects on public health interventions in settlements under different scenarios and assumptions. We are now focussing on robustly understanding plausible excess mortality rates in the Cox's Bazar settlement given newly available data collected by Community Health Workers. In

addition, we are developing new methods for the collection of data on contact patterns between individuals in settlements – a crucial input to many epidemiological models, and an important data point for understanding disease transmission routes. We are currently working towards publishing, to the best of our knowledge, the first set of contact matrices for a refugee settlement.

With almost 80 million forcibly displaced people in the world, we hope that this work will inspire more modeling groups to focus on these vulnerable populations, which have been traditionally under-served by such efforts, to ensure no one is left behind. To this end, we have also been working with 18 different institutions, both from inside and outside the UN system, to form a community of practice around disease modeling in refugee and IDP settlements. This collaboration has led to a report documenting shared challenges as well as a global call to action.

- Department/Division: Executive Office of the Secretary General
- Project Type/Output: Academic paper/Software tool/Report
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2023
- Project Domain: Health, crisis response and humanitarian assistance
- Data Source: Census, epidemiological and survey data
- Publicly Available Data: Partially
- Technology/Platform: Python, Javascript, AWS
- Related SDGs: SDG 3 – Good Health and Well-being; SDG 10 – Reduced Inequality; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: UNHCR Innovation, WHO, UNHCR, OCHA
 - Private Sector: IBM
 - Academia: Durham University, University College London, London School of Hygiene and Tropical Medicine, Massachusetts Institute of Technology, Delft University of Technology, University of Manchester
- Lessons Learned: People living in refugee and IDP settlements are highly vulnerable to disease spread, however, few modelling works exist which address these groups specifically. As part of forming a community of practice around this challenge, we have systematically documented our lessons learned as a collective in our group report. The link to this can be found below.
- Links:
 - <https://www.unglobalpulse.org/microsite/epidemic-modelling-in-settlements/>
 - <https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1009360>
 - <https://gh.bmj.com/content/7/3/e007822>
 - <https://epimodel.unglobalpulse.net>
- Contact information: Joseph Aylett-Bullock (joseph@unglobalpulse.org)

Project 4: Using Social Media Tools to Monitor and Fight the COVID-19 Infodemic

- Project Description: This project consists of two core components. First, in partnership with the WHO we have been conducting ongoing social media listening exercises in the Africa region. The data is explored and analyzed with the help of a third-party platform but we have developed a custom classifier to categorize mentions as positive or negative from the perspective of the WHO. UN Global Pulse has produced over 40 reports to assist WHO AFRO in monitoring its brand and understanding the conversations associated with COVID-19 and poliovirus.

Second, in collaboration with WHO we are supporting a team from Stanford University which aims to test interventions to reduce vaccine hesitancy among social media users. Machine learning will be used to segment users into different vaccine hesitancy types based on their responses to an online chatbot survey, and a contextual bandits experiment will be used to dynamically assign personalized treatments to reduce vaccine hesitancy according to the user type.

- Department/Division: Executive Office of the Secretary General
- Project Type/Output: Report
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2023
- Project Domain: Health, misinformation
- Data Source: Our social media listening relies on data collected from platforms such as Twitter, blogs, and news media. The research on reducing vaccine hesitancy uses survey/chatbot log data collected through engagement with participants on Facebook.
- Publicly Available Data: No
- Technology/Platform: Our social media listening exercise adopts an AI-driven approach supported by a commercially available consumer research tool with a human in the loop to manually validate the performance of the tool and provide contextual insights.

The vaccine hesitancy interventions will be deployed using the Facebook platform (Facebook ads will be used to recruit respondents, and Facebook messenger will be used to implement the surveys and treatments).

- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being
 - Partnership(s)/Collaborator(s):
 - UN Partners: UN Global Pulse, World Health Organization
 - Academia: Stanford University Golub Capital Social Impact Lab (research collaborator)
 - Lessons Learned: Lessons learned from the social media listening exercise include the importance of clearly defining project objectives, the intended use of the data, timeframe, and a taxonomy at the start of the project in order to effectively filter the vast quantity of social media data into a useful product. At the same time, adopting an iterative approach was important for improving the sensitivity and specificity of the taxonomy as well as the ability of the analysis to address the questions most important to the WHO.
- While the social media analysis process has been simplified by the use of a third-party tool, the setup, monitoring and analysis steps are still very labor intensive. Automatic tools are not without flaws, which reinforces the importance of having a human in the loop to validate the findings. Challenges included the “black-box” nature of the third party tool’s algorithms and the need to define a custom classifier because the tool’s built-in sentiment analysis failed to capture some of the nuances of interest.
- Contact information: Katherine Hoffmann Pham (katherine@unglobalpulse.org)

Project 5: A computational framework for predictive modeling of refugee and IDP movements

- Project Description: Predicting forced displacement is an important undertaking of many humanitarian aid agencies, which must anticipate flows in advance in order to provide vulnerable refugees and Internally Displaced Persons (IDPs) with shelter, food, and medical care. While there is a growing interest in using machine learning to better anticipate future arrivals, there is little standardized knowledge on how to predict refugee and IDP flows in practice. Researchers and humanitarian officers are confronted with the need to make decisions about how to structure their datasets and how to fit their problem to predictive analytics approaches, and they must choose from a variety of modeling options. In an academic paper and an accompanying set of practitioner-focused

"modeling cards", we attempt to facilitate a more comprehensive understanding of this emerging field of research by providing a systematic model-agnostic framework, adapted to the use of big data sources, for structuring the prediction problem.

- Department/Division: Executive Office of the Secretary General
- Project Type/Output: Policy Framework/Academic paper
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2022
- Project Domain: Human Rights, Forced displacement
- Related Sustainable Development Goals (SDGs): SDG 10 - Reduced Inequality; SDG 16 - Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s)
 - UN Partners: UNHCR
- Links:
 - <http://unglobalpulse.net/predictingdisplacement/>
 - <https://www.tandfonline.com/doi/abs/10.1080/1369183X.2022.2100546>
- Lessons Learned: The field of predictive analytics for humanitarian response is still at a nascent stage, but due to growing operational and policy interest we expect that it will expand substantially in the coming years. In the course of preparing this framework, we have found that relatively little is known about the structure of this prediction problem at the high level, and that there are a number of big-picture questions for which we lack empirical evidence, such as: how far in advance displacement can be predicted; how much data is needed to train effective models; and whether models transfer across borders and humanitarian settings. We hope that this framework will help to encourage future research on these questions; facilitate comparisons between existing models; and spark a broader discussion on best practices for predicting forced displacement.
- Contact information: Katherine Hoffmann Pham (katherine@unglobalpulse.org)

Project 6: PulseSatellite: A collaboration tool using human-AI interaction to analyse satellite imagery

- Project Description: Humanitarian response to natural disasters and conflicts can be assisted by satellite image analysis. In a humanitarian context, very specific satellite image analysis tasks must be done accurately and in a timely manner to provide operational support. PulseSatellite is a collaborative satellite image analysis tool which leverages neural network models that can be retrained on-the-fly and adapted to specific humanitarian contexts and geographies. The tool grew out of a long standing collaboration with UNOSAT which began by building an AI model for counting structures in refugee and IDP settlements. This was then expanded to a web-based toolkit - PulseSatellite - that can be easily adapted to other remote sensing applications and which allows for the incorporation of models created by other users. Currently, we have three models loaded into the system - one that allows users to map structures in refugee settlements, a roof density detection model (e.g. for slum mapping), and a flood mapping application. PulseSatellite is now open for use by other UN agencies.
- Department/Division : Executive Office of the Secretary General
- Project Type/Output: Academic paper/Software tool
- Project Status: Evolved into DISHA Damage Assessment
- Project Start Year: 2017
- Project End Year: Evolved into DISHA Damage Assessment

- Project updates: Over the past year we have continued to work with UNOSAT to develop and improve on the machine learning models included in the PulseSatellite tool. A particular focus has been on rigorous testing of the flood mapping capabilities of the tool by testing the model in a variety of settings. The model has been used to produce the UN's first AI generated flood maps which have been used in operational contexts, and has now been deployed in many countries across the world.

We are also working closely with UNOSAT to develop benchmark datasets for shelter (refugee camp) mapping, building footprint detection and damage assessment. We plan to use these to test many of the available well trained and top-performing models, but in the context of UN-focused datasets (e.g. with more of a Global South and development context than many of the standard machine learning benchmarks) and make this available as a service to the UN system.

In addition, we are working with WHO and UNOSAT, alongside the US CDC, to develop methods for rapid estimations of population counts in refugee camps for use in public health programming, such as inputs to computational disease models as well as for resource planning.

- Project Domain: Crisis response and humanitarian assistance
- Data Source: Satellite data
- Publicly Available Data: No
- Technology/Platform: Python, Javascript, TensorFlow, PyTorch, Keras, AWS
- Related Sustainable Development Goals (SDGs): SDG 10 Reduced Inequality; SDG 13 Climate Action; SDG 17 Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - UN Partners: UNOSAT, WHO
 - Public sector: US CDC
 - Academia: Durham University
- Links:
 - <https://www.unglobalpulse.org/microsite/pulsesatellite/>
 - <https://ojs.aaai.org/index.php/AAAI/article/view/7101>
- Lessons Learned: Operational contexts are rapidly changing, meaning that AI models may not always perform well. Through using a human-in-the-loop approach we have found that models can be adapted to such changing settings, however, this still requires (sometimes significant) manual intervention from analysts. In addition, there are various workflows which have been more tailored to AI models but which do not always follow the workflow of satellite image analysis using our tool. In future work we will continue to work with end users to test and help refine PulseSatellite. We will also expand into more applications, and continue to open PulseSatellite as a tool to agencies across the UN system.
- Contact information: Tomaz Logar (tomaz@unglobalpulse.org)

Project 7: Online radio monitoring for public health social listening and beyond

- Project Description: Radio remains the most reliable and affordable medium of accessing and sharing information in most of the developing world. Indeed, studies have shown that radio remains more prevalent as a means of communication in many parts of the world than social media. Since 2019, UN Global Pulse has worked with the WHO to explore the use of data from radio talk shows to signal early warnings of health risks and health-related matters. We have developed a radio monitoring pipeline which can 'listen' to online radio stations, transcribe the audio using machine learning speech-to-text models, and analyse the content using a series of NLP methods for display in a frontend dashboard. The dashboard was designed to be used by infodemic managers and decision makers

to inform public health interventions and communication strategies. However, we aim to convert it into a generally applicable radio mining tool that can be used in a variety of settings.

- Department/Division : Executive Office of the Secretary General
- Project Type/Output: Academic paper/Dataset/Software tool
- Project Status: Ongoing
- Project Start Year: 2019
- Project End Year: 2024
- Project updates: This year, we have continued to provide insights from radio data to the WHO as part of the Africa Infodemic Response Alliance. Through partnerships, we are currently working to adapt the dashboard to conduct radio monitoring in a wide range of additional application contexts, ranging from gender stereotypes and xenophobia to preparedness for environmental disasters. We are also independently conducting research on mentions of hate speech in a global sample of radio data.
- Project Domain: Telecommunications
- Data Source: Radio data from online stations
- Publicly Available Data: Yes
- Technology/Platform: Python, Spacy, Gensim, Plotly Dash, AWS
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-being; SDG 10 – Reduced Inequality; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - UN Partners: WHO, UNDP Accelerator Labs, UN Women
- Links: <https://www.unglobalpulse.org/2021/05/who-and-un-global-pulse-are-building-a-social-listening-radio-tool-to-aid-the-covid-19-infodemic-response/>
- Lessons Learned: One of the technical challenges encountered has been the wide variability in the quality of speech-to-text machine learning models when applied to speakers of the same language but with different accents. We have worked to find diverse training datasets to fine tune existing language models and performed benchmarking tests to find the most generalisable approach. We have also conducted user testing of the dashboard with WHO infodemic managers, which helped shape the development of the tool. In the future we also hope to be able to plug in our radio data to existing WHO analysis tools such as EARS and EIOS, as well as to transfer the technology for radio analysis to other partners for use in different contexts.
- Contact information: Katherine Hoffmann Pham (katherine@unglobalpulse.org)

Project 8: Imagining post-Covid-19 UN: foresight for organizational realignment and adaptation

- Project Description: Through its SG Lab Futures Initiative, UN Global Pulse fostered a strategic foresight exercise and dialogue to frame the role of the UN post-COVID-19 through scenarios and future visioning. The activity leveraged partnerships with two private sector entities to access AI tools as a backbone for foresight research, including scenario building to support the UN leadership in accessing the futures and foresight capacity.
The purpose of the exercise is to systematically analyze the driving forces and future trends underpinned by the COVID-19 pandemic, synthesizing them into alternative futures scenarios. The scenarios provided a framework for discussing implications for the UN long-term, including country-level operations.
- Project Type/Output: Seminar/meeting/Strategic dialogue
- Project Status: Completed
- Project Start Year: 2021

- Project End Year: 2021
- Project Domain: Strategic transformation and planning
- Data Source: 1. Horizon scanning included a combination of structured and unstructured qualitative data collected from web scraping and uploaded documentation to customize an internal search engine functionality. 2. Social media analysis
- Publicly Available Data: No
- Technology/Platform: IBM Watson
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-being; SDG 8 – Decent Work and Economic Growth; SDG 10 – Reduced Inequality; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 Partnership for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: HLCP foresight network, UNESCO, WHO
- Lessons Learned:
 1. Introducing the benefits of new methodologies and mixed methods approaches to foresight takes time and engagement with the stakeholders.
 2. Blending qualitative and quantitative data in foresight analysis can help contextualize and provide a broader understanding of long-term challenges within a system.
 3. Applying AI tools developed for commercial purposes in the UN context requires collaboration from a multi-disciplinary team from both sides.
- Contact information: Tiina Neuvonen (tiina.neuvonen@un.org)

Project 9: Understanding population movement related to COVID-19 border closures

- Project Description: UN Global Pulse and UNHCR are working to calculate and anticipate the number of displaced persons a) that have already crossed the Brazil-Venezuela border and b) that can potentially cross in order to understand their need for humanitarian support and overall strengthen protection efforts. This project consists of: (i) a queue modeling tool for simulating border crossings under different conditions, (ii) a nowcasting effort to calculate the amount of urban population and potentially identify interest in population movements to Brazil using big data sources, and (iii) predictive models for forecasting future arrivals/population movements.
- Project Type/Output: Report/Interactive dashboard tool
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2022
- Project Domain: Migration
- Data Source: We draw on a range of traditional and nontraditional data sources, including: Twitter and Facebook data; Google trends and Google mobility data; radio data; conflict data from ACLED; data on COVID cases, deaths, and symptoms; economic indicators; and data on arrivals from UNHCR.
- Publicly Available Data: No
- Technology/Platform: The data cleaning and modeling pipeline is primarily coded in Python and stored in Jupyter notebooks. Some scripts have been written in R. The code is stored on Github. The front-end dashboard has been coded with Plotly Dash.
- Related Sustainable Development Goals (SDGs): SDG 3 Good Health and Well-being and SDG 10 Reduced Inequality
- Partnership(s)/Collaborator(s):
 - UN Partners: UN Global Pulse, UNHCR

- Links:
 - <https://www.unglobalpulse.org/project/understanding-population-movement-from-venezuela-to-brazil-related-to-covid-19-border-closures/>
 - <https://brazil-venezuela-flows.unglobalpulse.net/>
 - <https://medium.com/unhcr-innovation-service/predicting-the-unpredictable-preparing-for-potential-future-scenarios-1b22cd7f8da2>
- Lessons Learned: One of the core challenges to prediction/forecasting/nowcasting is that there is a large period of unusual data from the COVID pandemic. At the time of this project, we could only make assumptions about how COVID-19 might have changed population movement intentions, since we did not have reliable information on the extent of suppressed demand and the true number of people crossing illegally. We attempted to address these limitations by adapting our modeling approach. First, we developed a simulation tool for arrivals which does not rely on precise information about border crossings, but rather allows decision-makers to experiment with a variety of assumptions about crossing volumes, the demand for shelters, and relocation capacity. Second, we are conducting ongoing data collection to “nowcast” potential border flows in real time. Finally, we tested a range of different arrivals forecasting models, comparing predictions across methods and developing uncertainty estimates for each model.
- Contact information: Katherine Hoffmann Pham (katherine@unglobalpulse.org)

Project 10: Ukraine response - Data Science Cell

- Project Description: In response to the Ukraine crisis there were many actors in the data science space who were providing support and performing analysis to inform the response efforts of the UN. Early in the crisis, we initiated a Data Science Cell to bring together entities from across the UN system to coordinate and collaborate on these topics. The cell has grown to over 60 members from over 15 institutions. The cell also has three subgroups: population estimation (facilitated by UNHCR and IOM); socioeconomic impacts (facilitated by the World Bank-UNHCR Joint Data Center on Forced Displacement); and situational awareness (facilitated by UNDP). These subgroups are currently being used as spaces for focused interagency collaboration on these topics.
- Project Type/Output: working group
- Project Status: Completed
- Project Start Year: 2022
- Project End Year: 2022
- Project Domain: Crisis response and humanitarian assistance
- Data Source: Varied
- Publicly Available Data: Mixed
- Technology/Platform: Varied depending on use case
- Related Sustainable Development Goals (SDGs): 10 (Reduced Inequality), 16 (Peace, Justice and Strong Institutions), 17 (Partnerships for the Goals)
- Partnership(s)/Collaborator(s):
 - UN Partners: UNHCR, OCHA, World Bank, UNHCR-World Bank JDC, UNICEF, IOM, WFP, UNDP, WHO, UNOCC, UNOSAT, WTO, UNFPA, IFAD
 - Non-UN Partners: NRC/DFS, Oxford University, QCRI, ACAPS
- Lessons Learned: Data science is being used in a vast number of ways across the UN system to respond to crises and humanitarian emergencies. There was and is a strong desire to collaborate among institutions to build better systems and overcome challenges. As a community we hope to release a report outlining our shared challenges and lessons learned throughout our response to the Ukraine crisis, which we aim to use as a foundation for continuing to improve the data science community’s crisis responses in the future.

- Contact information: Joseph Aylett-Bullock, Katherine Hoffmann Pham (joseph@unglobalpulse.org, katherine@unglobalpulse.org)

Project 11: Data Science Cell subgroup - situational awareness

- Project Description: Situational awareness can be broadly defined as the “knowledge, understanding and anticipation of a situation through monitoring and reporting of current events, analysis and predictive assessments” (2019 DPO JOCs). As part of the data science cell, one of the three subgroups is looking at understanding and developing data science methods for improved situational awareness during a crisis, based on our experience in responding to the Ukraine crisis. We are currently focussed on damage assessment, conflict monitoring and understanding the affected geography in the first month and then the first six months of a crisis. We hope to produce a literature review of current methods, conduct an analysis of where gaps in this literature exist, and work towards developing methods to address these gaps. This subgroup is facilitated by UNDP, and UN Global Pulse is a member of the group.
- Project Type/Output: working group
- Project Status: Completed
- Project Start Year: 2022
- Project End Year: 2022
- Project Domain: Crisis response and humanitarian assistance
- Data Source: Varied
- Publicly Available Data: Mixed
- Technology/Platform: Varied depending on use case
- Related Sustainable Development Goals (SDGs): 10 (Reduced Inequality), 16 (Peace, Justice and Strong Institutions), 17 (Partnerships for the Goals)
- Partnership(s)/Collaborator(s):
 - UN Partners: UNDP, UNOSAT, UNICEF, UNOCC
- Contact information: UN Global Pulse focal point - Joseph Aylett-Bullock (joseph@unglobalpulse.org); subgroup facilitator - Gaia Rigodanza (gaia.rigodanza@undp.org)

Project 12: Spotlight Initiative - Mining Gender Perceptions from Public Radio Discussions

- Project Description: UNGP in Kampala is using its AI-powered public radio social listening tool to mine data on perceptions around Gender Based Violence (GBV), Violence Against Women and Girls (VAWG), Harmful Practices (HP), Sexual Reproductive Health Rights (SRHR), and Violence Against Children (VAC) in Uganda. This data source complements perception surveys but provides the present state of affairs and the evolving context of violence against women and girls in the community to allow for timely and targeted interventions. Following engagements with the Recipient UN Organizations (RUNOs), the team of data analysts at UNGP in Kampala registered the following achievements:
 - Maintained the radio flow from 22 radio stations broadcast in Luganda covering Kampala and its surrounding districts.
 - Defined a detailed taxonomy of keywords to mine relevant data and defined a tagging taxonomy (capturing perpetrators, victims, and violence types).
- Department/Division: Executive Office of the Secretary General
- Project Type/Output: Dashboard/Report
- Project Status: Completed
- Project Start Year: 2019

- Project End Year: 2023
- Project updates: Biweekly dashboard updates are produced by UNGP and shared with stakeholders to inform their programming.
- Project Domain: Telecommunications
- Data Source: Radio data from FM stations
- Publicly Available Data: No
- Technology/Platform: Python, Bash, AWS, My SQL, PHP, HTML, Ruby, C++
- Related Sustainable Development Goals (SDGs): SDG 5 – Gender Equality and SDG 10 – Reduced Inequality
- Partnership(s)/Collaborator(s)
 - WHO, MGLSD, UNICEF, UN RCO, UN WOMEN, UNFPA and Ministry of Gender Labour and Social Development in Uganda
- Links: <https://www.unglobalpulse.org/project/ending-violence-against-women-and-girls-in-uganda/>
- Lessons Learned: Radio remains the most popular source of information in Uganda, used by different people irrespective of their demographics. For example, according to the Spotlight Initiative’s baseline report in 2020 the majority of respondents (70.8% of women and 73.3% of men) received information on VAWG/HPs and SRHR through radio. Radio shows allow two-way communication between radio studios and people in the community through call-ins, making them a rich representation of the people that are digitally marginalized.

Project 13: Developing Ethical AI Frameworks and Data Exchanges for Uganda and Ghana

- Project Description: AI and other emerging technologies present opportunities for the achievement of national priorities and to increase national and regional welfare. To realize these opportunities, and to safeguard against risks and potential harms, key foundations need to be put in place, such as access to data (a.o., to train AI), and the development and use of emerging technologies need to be guided by ethical rules and principles. UNGP has been supporting the Government of Ghana and the Government of Uganda on developing solutions to address these two issues. This support has led to the development, in each country, of a Roadmap for an Ethical AI Framework informed by the local social and societal context, and a Roadmap for the development of Community-Centric Data Exchanges at the national level.
- Department/Division: Executive Office of the Secretary General
- Project Type/Output: Ethical AI Framework, and community-centric Data Exchange Roadmap to unlock data as a resource for the attainment of national and regional priorities (each for both Uganda and Ghana).
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2022
- Project updates: The recommendations made in the Ethical AI Framework and the data exchange roadmap are being used to inform the follow-up work in developing a data strategy for Uganda and implementing a use case of the data exchanges focusing on the tourism sector. Both projects are underway.
- Domain: Digital technologies
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth; SDG 12 – Responsible consumption and Production; SDG9 – Industry, Innovation and Infrastructure(each for both Uganda and Ghana), SDG11 – Sustainable Cities and Communities

- Partnership
 - Government: Government of Uganda (Ministry of ICT and National Governance)

2. Related Sustainable Development Goals

SDG 3, 8, 10, 13, 16, and 17

3. Relevant links

<https://www.unglobalpulse.org/>

Contact information

Rene Clausen Nielsen (rene.nielsen@un.org) and Miguel Luengo Oroz (miguel@unglobalpulse.org)

United Nations Human Settlements Programme



1. Description of Activities on AI

Project 1: AI for Spatial Mapping and Analysis - Toolkit for Urban Planners

- Project Description: UNITAC is developing a toolkit on use of artificial intelligence (AI) for spatial mapping and analysis for urban planners and policy makers, providing support to urban planners on how they can adopt AI solutions in undertaking urban planning and addressing urban challenges. The toolkit should provide practical insights and include case studies on how artificial intelligence and related technologies are and can be applied to enhance urban spatial mapping, land use planning, infrastructure development and data-driven urban development.
- Department/Division: UNITAC Hamburg (linked to UN-Habitat's Flagship II Program: People Centered Smart City)
- Project Type/Output: Application Tool & Manual; Academic Paper; Project Advisory Group; External Communications, including blog posts and video content
- Project Status: Ongoing
- Project Start Year: 2025
- Project Domain: <https://unitac.un.org>
- Data publicly available: To be published in 2025
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities, SDG 9 – Industry Innovation and Infrastructure, SDG 10 Reduce Inequalities, and SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - UNITAC partnership between the United Nations Human Settlements Programme (UN-Habitat), the United Nations Office for Information and Communication Technology (OICT), and HafenCity University
- Relevant Links and Multimedia:
 - [Call for proposals: AI for Spatial mapping and analysis - Toolkit for urban planners](#)
- Contact Information
- Abdinassir Shale Sagar (abdinassir.sagar@un.org)

Project 2: AI in Cities: Risks, Applications and Governance

- Project Description: UN-Habitat has collaborated with [Mila](#) to produce a policy paper on the application of artificial intelligence in urban contexts. The paper [AI in Cities: Risks, Applications and Governance](#), takes a risk-based approach highlighting the risks of AI throughout its lifecycle and application in cities. The report first describes AI, its different types, the opportunities it offers for cities, and its current limitations. It identifies key sectors for intervention for cities, along with examples of AI applications within each of those sectors. The report then presents a detailed risk assessment framework with

reflective guiding questions. Finally, the report offers a set of recommendations and areas of action to consider when developing an AI strategy.

- Department/Division: Knowledge & Innovation Branch
- Project Type/Output: White paper
- Project Status: Published
- Project Start Year: 2021
- Project End Year: 2022
- Project Domain: Human Rights, Environment
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities
- Partnership(s)/Collaborator(s)
 - Civil Society: MILA
- Related Sustainable Development Goals: SDG 11
- Contact Information
 - Edlam Abera Yemeru (yemeru@un.org) and Livia Schaeffer Nonose (livia.schaeffernonose@un.org)

Project 3: International Guidelines on People-Centred Smart Cities

- Project description: Member states adopted the resolution mandating UN-Habitat to develop International Guidelines on People-Centered Smart Cities in June 2023 at the UN-Habitat Assembly in its second session. The process will culminate in the development of [International guidelines on people-centered smart cities](#) which will address key areas of technology application in cities requiring international guidance, due to normative gaps. Among the areas to be tackled, AI and new technologies are specifically mentioned as in need to be regulated by international non-binding frameworks that can be used by national and local policy-makers to ensure cities and technologies used are really built in a people centered fashion. Strong emphasis is also put on the importance to preserve citizens right to privacy both online and offline, while building the capacity of policy makers to ensure there is enough understanding about the risks and opportunities related to the new technologies. In leading on the development of the guidelines, UN-Habitat will build on existing work and data collected through the AI need assessment, the global smart cities governance study and others, and is currently organizing global, regional, thematic and stakeholder consultations as the basis of the guidelines development process.
- Department/Division: Knowledge & Innovation Branch
- Project Type/Output: International guidelines
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Human Rights, Environment
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities
- Contact Information
 - Edlam Abera Yemeru (yemeru@un.org) and Livia Schaeffer Nonose (livia.schaeffernonose@un.org)

Project 4: AI for people-centred smart cities workstream in the UN inter-agency working group on AI

- Project Description: In early 2022, a new workstream on AI for people-centered smart cities, co-chaired by UN-Habitat ITU, UNESCO, and UNDP, was established in the UN's Inter-agency working group on AI. The objectives of the workstream are to understand the needs of cities and the capabilities of UN System organizations in relation to AI, and how to leverage AI for people-centered smart cities while promoting ethical guidelines for AI that are human-rights based, strengthening inter-agency cooperation, and implementing key performance indicators and other metrics to ensure that these values are respected. Currently, the project is kicking off a global assessment of responsible AI use in cities to map out the opportunities and constraints for local governments to responsibly use, implement and govern AI technologies in cities.
- Department/Division: Knowledge & Innovation Branch
- Project Type/Output: Reports
- Project Status: Development
- Project Start Year: 2022
- Project End Year: 2023
- Project Domain: Human Rights, Environment
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities
- Partnership(s)/Collaborator(s)
 - UN Agencies: UNDP, ITU, UNESCO
 - Civil Society: IDRC, UNU-E-GOV, U4SSC, CC4DR
- Related Sustainable Development Goals: SDG 11
- Contact Information
 - Edlam Abera Yemeru (yemeru@un.org) and Livia Schaeffer Nonose (livia.schaeffernonose@un.org)

Project 5: Global Assessment of Responsible AI in Cities

- Department/Division: Knowledge & Innovation Branch
- Project Type/Output: Reports
- Project Status: Development
- Project Start Year: 2023
- Project End Year: 2024
- Project Domain: Human Rights, Environment, Strategies, Capacity Building
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities
- Partnership(s)/Collaborator(s)
 - UNU-E-GOV
 - Civil Society: IDRC - International Development Research Centre
- Related Sustainable Development Goals: SDG 11
- Contact Information
 - Edlam Abera Yemeru (yemeru@un.org) and Livia Schaeffer Nonose (livia.schaeffernonose@un.org)

Project 6: BEAM: Building & Establishment Automated Mapper: Mapping informal settlement in eThekweni, South Africa

- **Project Description:** The city of eThekweni has the largest number of informal settlements of any municipality in South Africa. To keep track of the fast changes in the built environment and develop a pipeline of public service delivery and upgrading projects, it is essential that the city has access to evidence-based information. That requires up-to-date records, particularly on the scale, location, and number of informal areas.
To assist the eThekweni's Human Settlement Unit (HSU) in automating their building mapping process, United Nations Technology Accelerator for Cities (UNITAC) developed BEAM, a model that uses machine learning to radically accelerate the spatial recognition of settlements and building structures on aerial imagery. BEAM can mark pixels specific to a building's spectral profile with an accuracy of 94%. It looks to provide HSU with up-to-date geo-referenced base maps.
In addition to the tool development, there will be a technology and knowledge transfer component. This capacity-building process aims to enable the eThekweni Municipal Government to leverage BEAM to more effectively target their upgrading and basic urban service delivery interventions. A project advisory group has been established to address the BEAM's potential risks, challenges, and opportunities.
- **Department/Division:** UNITAC Hamburg (linked to UN-Habitat's Flagship II Program: People Centered Smart City)
- **Project Type/Output:** Application Tool & Manual; Academic Paper; Project Advisory Group; External Communications, including blog posts and video content
- **Project Status:** Ongoing
- **Project Start Year:** 2021
- **Project Domain:** <https://unitac.un.org>
- **Data Source:**
 - Population demographics: 580 urban informal settlements encompassing 314,000 household
 - Geography: South Africa
 - Locations: eThekweni
- **Scaling up:** Cape Town (South Africa), Central America (San Salvador, Managua, Ciudad de Panamá, Santo Domingo, Ciudad de Belice, San José, Guatemala, Tegucigalpa)
- **Link to data:** Aerial photography is provided by the city
- **Data publicly available:** Not yet
- **Related Sustainable Development Goals (SDGs):** SDG 11 – Sustainable Cities and Communities, SDG 9 – Industry Innovation and Infrastructure, SDG 10 Reduce Inequalities, and SDG 17 – Partnership for the Goals
- **Partnership(s)/Collaborator(s)**
 - UNITAC partnership between the United Nations Human Settlements Programme (UN-Habitat), the United Nations Office for Information and Communication Technology (OICT), and HafenCity University
 - Human Settlement Department, City of eThekweni, South Africa
- **Relevant Links and Multimedia:**
 - [Using Artificial Intelligence for better city planning](#)
 - [Leveraging local expertise to enhance urban sustainability with BEAM](#)
- **Lesson Learned:**
 - Perception of AI in the Field of Informality

- Mapping a community inherently makes it “legible” to public authorities. Doing so can have tremendous advantages for the planning and allocation of critical public health and infrastructure services, especially in slum settlements. However, such data collection must respect both the privacy of residents and their unique cultural dynamics. Similar initiatives need to ensure that all developed tools adhere to United Nations Human Rights guidelines. The legal agreements with project partners, including MoUs and NDAs, need to have clauses on human rights and social safeguards that denote language, such as that the data and results produced by the tool will not negatively impact people on the ground. It is vital to integrate within the project objective, the understanding that such tools are only to be used towards the upholding of rights and freedoms of all.
- Without a doubt, such initiatives should be communicated openly and transparently to the public. A Community of Practice or Project Advisory Committee should be established to bring diverse perspectives on project development and implementation. At the same time, communication for #tech4good initiatives needs to be considerate of public perception and biases toward AI solutions, so that there are no misinterpretations of project objectives
- Knowledge Transfer and Training Sessions can be Difficult
- The tool was co-designed with project partners. However, knowledge transfer and training sessions can become difficult in the long run. Long-term hosting and maintenance of the tool require ongoing resources for cloud computing and HR. The cost may exceed the project’s lifetime. There is a risk that this tool cannot be ensured in the long run.
- The Model needs to be Re-trained for New Cities
- A key limitation for project upscaling is that the tool needs to be re-trained for each city. In addition to limited personnel, another challenge is access to geospatial images. BEAM currently relies on aerial photography. However, not every city has access to or can afford frequent aerial images. An alternative will be the use of satellite imagery. Not only are satellite images available on numerous platforms, but using them will also be advantageous during the project upscaling phase, where some cities may not have the capacity to produce aerial imagery.
- BEAM tool is currently being piloted in 8 cities in Central America.
- Unfortunately, high-resolution (ideally 1m Ground Sampling Distance or below), freely-accessible satellite images are not always easily attainable. As such, it is worthwhile to consider the possibility of merging multiple sources and types of geospatial images.
- Scaling up BEAM (Building & Establishment Automated Mapper) in South Africa and Central America
- The Building & Establishment Automated Mapper (BEAM) was developed as one of the first pilot projects of UNITAC-Hamburg. The tool leverages machine learning to identify buildings and map rooftops using high-resolution aerial or satellite imagery. Its primary objective is to enhance data accessibility and automate land mapping processes, particularly to improve the understanding of informal settlement dynamics. Besides its deployment in eThekwin, the BEAM tool has been scaled up for use in Cape Town (South Africa) and 8 cities in Central America.
- BEAM in Central America - The BEAM tool is being upscaled for use on satellite imagery in eight Central American cities as part of UN-Habitat’s initiative to develop a regional inventory of informal settlements in Central America. The objective was to train and enhance the BEAM tool on WorldView-3 satellite images (30cm resolution) and upgrade its image detection logic for mapping informal settlements (building rooftops) across Central America. The project objective was to improve data accessibility on informal settlements by generating shapefiles with building footprints, providing a spatial overview of the number, location, extent, and key morphological characteristics of informal settlements in each city.

- The pilot cities are: Belize City (Belize), Guatemala City (Guatemala), San Salvador (El Salvador), Tegucigalpa (Honduras), Managua (Nicaragua), San José (Costa Rica), Panama City (Panama), Santo Domingo (Dominican Republic).

Milestones Achieved:

- Successfully handed over project results to UN-Habitat Mexico through an on-site transfer with project partners.
- Adapted the BEAM tool for use with satellite imagery and aerial data.
- Refactored and stabilized the codebase for improved performance.
- Created a new training dataset to enhance model accuracy.
- Updated the model training pipeline to include advanced edge detection.
- Presented the project at the World Urban Forum (WUF).
- Presented the project at the Joint Urban Remote Sensing Event (JURSE 2025)
- Conducted four collaborative mapping workshops with local authorities in Central America, including Guatemala City, Managua, Santo Domingo, and Panama City.
- Developed MapDraw, a UNITAC-owned collaborative mapping tool.

BEAM in Cape Town, South Africa - Furthermore, BEAM was deployed in partnership with the City of Cape Town's Geomatics Branch to support the enumeration of informal structures, particularly those located in backyards of formal properties. Cape Town has numerous dense informal settlements and experiences high rates of "backyarding" (the construction of informal dwellings in the backyards of formal houses). Backyarding is one of the fastest-growing housing trends in the city, yet due to its unstructured and unplanned nature, the municipality lacks accurate information on the number of backyard dwellings being built.

Additionally, the extreme density and overlapping nature of these structures present a unique challenge for machine-learning-based mapping. To address this, BEAM was applied to publicly available high-resolution (8cm) aerial photography provided by the City of Cape Town, supporting efforts to better understand and track backyard dwelling expansion.

Milestones Achieved:

- Developed new training dataset for City of Cape Town with over 2000 training images
- Trained model with >90% Dice Coefficient on areas of interest for City of Cape Town and specific backyard structures
- Conducted final testing in preparation for running building extraction on entire city
- Contact Information
Abdinassir Shale Sagar (abdinassir.sagar@un.org) (and Sophie Naue (sophie.naue@un.org))

Project 7: Hola ISUD plan (Integrated Strategic Urban Development Plan for Hola Town, Tana River County, Kenya).

- Project description: UN-Habitat in collaboration with UNEP (UN Environment Programme) is committed to supporting the preparation and elaboration of the Hola ISUD, with a strong link between urbanization, biodiversity, and ecosystem services. The preparation of Hola ISUDP will form part of a larger territorial strategy: The Go Blue project, an Innovative Land-Sea Planning and Management for Sustainable and Resilient Kenyan Coast, which is a partnership between the EU (European Union) and the Government of Kenya to advance the blue economy agenda through coastal development. For the Hola ISUDP, AI was primarily used in the remote sensing process of extraction of land cover information from satellite imagery. Land cover is a key layer necessary to perform most

of the GIS-based multicriteria analyses, helping to analyze a territory to detect historical changes and trends, particularly in a poor data environment, in which we mostly rely on information extraction from satellite imagery. The land cover layer was obtained through a supervised process of machine learning (considered as a subcategory of AI) applied to Copernicus Sentinel-2 imagery with 10 m resolution, by which the software is trained to recognize the different land cover classes (built up, tree cover, shrubland, agriculture, water, etc.). The creation of a high-quality land cover layer was critical to producing different analyses related to natural hazards like flooding vulnerability, drought potential, or land degradation, to take into consideration, among different other factors, the impact or influence of each type of cover on the specific hazard. Moreover, it was important for environmental assessments as biodiversity condition land cover change and ecosystem service value, as well as for multicriteria analyses aimed to assess the agriculture or urban development suitability. Therefore, we used two key open-source datasets originated through AI processes, to fill the data gap and to support different analyses and maps. The first one is the high-resolution density map provided by Facebook data for good in collaboration with CIESIN (Center for International Earth Science Information Network) of Columbia University. The map estimates the population at 30 x 30 m resolution for different categories (youth, elder, women, men). The data are generated by distributing the aggregate population data from the available census on building footprint and density extracted using advanced AI methodology. The data were used in the project to produce a population density map, to estimate the population affected by natural hazards, the amount of population served or unserved by public facilities, and to support strategic scenarios of growth and development. The second one is the open buildings dataset provided by Google, which produced a large dataset of 516 M buildings covering 64% of Africa extracted from high-resolution imagery in 2021, by applying AI. We used the buildings layer for different applications from the production of topographic maps to city scale and neighborhood strategic plans.

- Department/Division: UN-Habitat, Global Solution Division, Planning Finance and Economic Section (PFES)
- Project type/output: The main objective is to prepare the Integrated Strategic Urban Development Plan For Hola Town. The ISUDP is a document that will define a comprehensive long-term vision of the Municipality and guide sustainable urban development for the upcoming ten years.
- Project status: Completed
- Project start year: 2022
- Project end year: 2023
- Project domain: Urban planning and design, spatial analysis
- Data source: Google earth engine <https://developers.google.com/earth-engine/datasets/>
Open buildings https://developers.google.com/earth-engine/datasets/catalog/GOOGLE_Research_open-buildings_v1_polygons
High-resolution density map: <https://dataforgood.facebook.com/dfg/docs/methodology-high-resolution-population-density-maps>
- Publicly available data: Yes
- Technology/Platform: ArcGis, Google Earth Engine
- Related SDGs: SDG 3 – Good Health and Well-Being; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action
- Contact information: Edoardo Forzano (edoardo.forzano@un.org)

2. Related Sustainable Development Goals

SDG 3, 9, 10, 11, 13, 17

3. Relevant Links

<https://unhabitat.org/>

Contact Information

Edlam Abera Yemeru (yemeru@un.org) and Livia Schaeffer Nonose (livia.schaeffernonose@un.org)

United Nations High Commissioner for Refugees



1. Description of Activities on AI

Project 1: At UNHCR, we use GenAI to accelerate, deepen and sustain our impact by creating value to our workforce (Azure OpenAI, Enterprise apps/ERP and beyond)

- Project Description: Since 2023 UNHCR has leveraged Microsoft Azure Open AI solutions that aim to provide personalized and individual chatbots and assistants for different use cases with an agile deployment approach. The AI-powered solutions are developed as internal “sandboxes” for operations. For instance, individual website instances are made available that serve as “playgrounds” for teams to safely test generative AI capabilities, such as talking to internal pools of documents and producing new content based on the input (user prompts). Other examples may involve SharePoint and Workflows in the solution.

The piloting of these sandboxes encompasses now more than sixty use case ideas, representing a diverse range of operational scenarios, including country operations, regional teams, and inter-agency work at our headquarters (e.g., HR Policy chatbot, ERP Job Aid chatbot, Planning). For the 60+ use case ideas, UNHCR has deployed more than 30 proof of concepts since 2023. Depending on the use case, it may have a website interface where colleagues can generate policies, plan, chat with their own data to generate content/summaries, discover patterns, and more. Most case studies aim to leverage their text-based data such as: Documents/Text most representative to HQ teams: 1) Legal documentation, 2) Policies, rules, and regulations, 3) Reports: evaluation, financial audit, universal periodic review, oversight, submissions proposals, 4) Talking Points, etc. Text from Regional teams: 1) Generate/query situational reports to find trends, 2) Summarize data (e.g., refugee case interviews), 3) Draft policies to mention some. Text from Country Operations: 1) Operational situation, 3) Protection monitoring documents, cluster reports, 4) Translations of original language reports, 4) Participatory data.

UNHCR also continues to leverage Microsoft Copilot since 2023, enhancing the capabilities of the chatbot instances with additional information and content from the web. Microsoft Copilot is rolled out as a secure way to use Generative AI across UNHCR. We have also embarked on an M365 Copilot Pilot in 2025.

Additionally, UNHCR is leveraging AI solutions to improve our efficiency including, inter alia, in-product capabilities (e.g. ERP-Workday/ServiceNow/Oracle). Not to mention the efforts to explore AI's external-facing potential for UNHCR.

- Department/Division: UNHCR Division of Information Systems and Telecommunications (DIST), UNHCR Innovation Service together with other stakeholders
- Project Type/Output: Web-based GenAI Assistants for individual business units, Teams AI Bots/ERP and other enterprise solutions (Internal/external facing)
- Project Status: Ongoing

- Project Start Year: 2023
- Project Domain: Forced displacement and policy development
- Data Source: in the interest of agility, UNHCR's business units' non-sensitive data. Exceptions are made for use cases with sensitive/confidential data.
- Data publicly available: No
- Technology/Platform: open-source/python. Generative AI (GenAI), RAG (Retrieval-augmented generation). Generative AI, GPT 4.0 and higher from Azure OpenAI (Microsoft), Web site instances are hosted in a dedicated Microsoft Azure subscription connected to UNHCR corporate Microsoft 365 tenant. Other solutions involve MS tools/ Teams, ERP, and other enterprise solutions.
- Related Sustainable Development Goals (SDGs): SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s): Microsoft, OpenAI/GPT
- Relevant Links and Multimedia: <https://www.unicc.org/news/2024/10/08/unifyhr-genai-transforming-hr-operations-across-the-un-family/>
- Lesson Learned:
 - Reskilling personnel: on prompt completion, limitations of GenAI (e.g., quantification of text-based inputs), and ethical/human rights considerations on Automated Decision-Making Systems (ADMs)
 - Governance: organization-wide solutions on GenAI have high costs associated with it
 - Direct costs: IT infrastructure, indexing costs plus staff time (semi-automated and sometimes manual dataset curation process), prompt completion (currently pay-as-you-go), website hosting, semantic searches costs, supplier expertise (e.g. ERP supplier).
 - Indirect: Staff time for training and implementation. This project has a multidisciplinary team (mostly working part-time): a) Project management dedicated personnel, b) business analyst (for curating/selecting case studies, solution engineering/prompt engineer, c) data scientist, d) AI/data engineer, e) ML DevOps engineer (cognitive search), f) Web/Full stack development and g) policy researcher.
 - Data protection: Microsoft's framework agreement with the UN includes privileges and immunities for data hosting.
 - Capacity building: the user feedback from walk-through sessions confirms the need for enhanced capabilities for prompt engineering to get the best results out of Gen AI.
 - Tailored prompt engineering and follow-up/testing support facilitates successful adoption by business partners.
 - The approach for us needs to be agile and follow innovation methodologies (e.g., scrum methodologies, agile DevOps)
- Contact information: Nicole Henderson hendersn@unhcr.org, Carolyn Oleniuk oleniuk@unhcr.org, Marc Schitteck schitteck@unhcr.org

Project 2: Improved household surveys through semi-automated mapping

- Project Description: In response to the complexities of surveying dispersed refugee populations, particularly those residing outside formal settlements, UNHCR in collaboration with the WorldPop research group at the University of Southampton, embarked on a project to enhance data collection methodologies. Traditional survey sampling methods often prove inefficient in these contexts, as displaced individuals may constitute a small fraction of the general population, leading to resource-intensive processes with limited yield. The challenge was to develop a more effective approach to identify and survey these populations accurately. To address this, the project integrated

UNHCR's proGres registration data with high-resolution satellite imagery and advanced spatial modeling techniques. This innovative combination aimed to create more precise sampling frames, enabling the identification of refugee populations in out-of-camp settings. By leveraging data science and AI-driven analysis, the team sought to overcome the limitations of outdated or non-specific sampling frames, ensuring that surveys could be conducted more efficiently and effectively.

The implementation of this solution has led to significant improvements in the accuracy and efficiency of refugee surveys. By utilizing AI and data science, UNHCR can now better understand the living conditions and needs of displaced populations, facilitating more targeted and effective humanitarian responses. This approach not only optimizes resource allocation but also ensures that the voices of refugees are more accurately represented in data collection efforts.

The impact of this project extends beyond immediate survey improvements. It sets a precedent for the integration of AI and data science in humanitarian efforts, demonstrating how innovative technologies can address complex challenges in refugee data collection. By refining survey methodologies, UNHCR enhances its capacity to respond to the evolving needs of displaced populations, ultimately contributing to more effective and responsive humanitarian interventions.

- Department/Division: UNHCR Innovation Service, [Data Innovation Fund 2023-2024](#), Data, Identity Management and Analysis (DIMA) units, UNHCR Global Data Service (GDS)
- Project Type/Output: AI model
- Project Status: Completed
- Project Start Year: 2023
- Project Domain: Forced displacement, Human rights, statistical analysis, camp management
- Data Source: PRIMES/ProGres UNHCR registration data
- Data publicly available: No
- Technology/Platform: open-source/R
- Related Sustainable Development Goals (SDGs): SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s): University of Southampton, WorldPop
- Relevant Links and Multimedia:

<https://jhumanitarianaction.springeropen.com/articles/10.1186/s41018-024-00157-6>

- Lesson Learned: Implementing AI-driven approaches in humanitarian contexts has yielded valuable insights. A key lesson is the importance of integrating diverse data sources—such as registration databases, satellite imagery, and spatial covariates—to enhance the precision of refugee population mapping. For instance, in Cameroon, combining these datasets enabled the disaggregation of refugee populations into 100-meter grid cells, providing high-resolution spatial information crucial for targeted interventions. This integration not only improved the accuracy of population estimates but also informed more effective service delivery and resource allocation strategies.

However, the deployment of AI in humanitarian settings presents several challenges. One significant difficulty is ensuring data privacy and security, especially when handling sensitive information of vulnerable populations. Additionally, the complexity of AI models can lead to a lack of transparency, making it challenging for stakeholders to understand and trust the outcomes. There are also concerns about algorithmic bias, which can inadvertently perpetuate existing inequalities if not properly addressed. Furthermore, resource constraints, including limited technical infrastructure and expertise, can hinder the effective implementation of AI solutions. These challenges underscore the need for robust ethical frameworks, stakeholder engagement, and capacity-building initiatives to ensure responsible and effective use of AI in humanitarian efforts.

This project proactively addressed key concerns such as algorithmic bias and the risk of exacerbating existing inequalities by embedding ethical safeguards and inclusive design principles throughout its development. By integrating a diverse range of data sources—such as UNHCR registration data, satellite imagery, and community-validated ground information—the project minimized reliance on any single biased dataset, thus enhancing fairness and representativeness. Collaborative engagement with local stakeholders and field teams ensured that context-specific knowledge informed model assumptions and interpretations, reducing the risk of marginalizing hard-to-reach groups. Moreover, transparency was prioritized through documentation of methodology and validation of AI outputs against known population distributions. This commitment to responsible innovation ensured that the technological tools not only supported more accurate humanitarian planning but did so in a way that upheld the dignity and rights of the people they were meant to serve.

- Contact information: Sarchil Qader S.Qader@soton.ac.uk, Édith Darin E.C.Darin@soton.ac.uk, Ahmadou Hamady Dicko dickoa@unhcr.org, Hisham Galal GALAL@unhcr.org, Hyunju Park park@unhcr.org

Project 3: Global Early Warning System on Forced Displacement

- Project Description: UNHCR successfully launched the Early Warning and Effective Response System with Forced Displacement Forecast project in partnership with the Luxembourg Institute of Science and Technology, with support from the Government of Luxembourg in 2024. This predictive analytics project harnesses advanced technologies – including nowcasting, forecasting, and machine learning – to develop an early warning system that detects escalating risks of forced displacement and provides timely displacement forecasts before emergencies occur. The displacement forecasting system aims to enhance emergency preparedness and response among humanitarian actors by improving the anticipation of humanitarian needs and enabling more effective resource mobilization, ultimately helping communities build resilience to better withstand and recover from shocks. The project aims to foster inclusive, multi-stakeholder partnerships – bringing together humanitarian actors, authorities, community-based organizations, academic institutions, community leaders, and displaced populations – to ensure a collaborative and comprehensive approach to emergency preparedness.
- Department/Division: Division of Emergency, Security and Supply (DESS), UNHCR Innovation Service
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Early warning, forced displacement, and emergency preparedness
- Data Source: Various
- Data publicly available: N/A
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty, SDG 10 – Reduced Inequality; SDG 11 – Sustainable Cities and Communities, SDG 13 – Climate Action, SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s): Luxembourg Institute of Science and Technology (LIST)
- Relevant Links and Multimedia: <https://www.unhcr.org/news/press-releases/unhcr-and-luxembourg-institute-science-and-technology-list-launch-early-warning>
- Contact information: Angela Murru: murru@unhcr.org; Asuka Imai: imai@unhcr.org

Project 4: Joint Data Analysis Framework – DAF Mexico

- Project Description: Mexico faces challenges in coordinating support for displaced communities due to a fragmented data landscape. This often leads to inefficient resource allocation and barriers for asylum seekers and refugees accessing essential services. To

address this challenge, the Mexico Joint Data Analysis Framework (DAF) was initiated in 2022, supported by the UNHCR Innovation Service Data Innovation Fund, providing a comprehensive platform for data management, analysis, and collaborative decision-making. The DAF integrates and analyzes data from crucial sources, including the National Refugee Commission (COMAR), the national population registry (CONAPO), and UNHCR, and utilizes automated machine learning to generate predictive insights, with an initial focus on optimizing vital Cash-Based Interventions (CBI) and Durable Solutions programs. Guided by key objectives to enhance coordination among stakeholders, improve data reliability and consistency, build statistical and data science capacity among partners, and increase the effectiveness of assistance and services, the strategic insights derived from the DAF enable evidence-based decision-making. This, in turn, promotes coordinated interventions, reduces duplication of efforts, ensures resources are directed effectively, and allows for quicker, more informed responses during critical situations. The framework's development benefited significantly from the contributions of multiple stakeholders, particularly Impacto Social Consultores who led the human-centered design process, and we extend our sincere thanks to them and all partners—including UNHCR teams, COMAR, CONAPO, and others—whose invaluable collaboration, support, and feedback have been instrumental and remain vital for the DAF's ongoing refinement.

- Department/Division: UNHCR Innovation Service, [Data Innovation Fund](#) 2023-2024, UNHCR Mexico
- Project Type/Output: Web-based application
- Project Status: Ongoing
- Project Start Year: 2023
- Project Domain: Forced displacement, Human rights,
- Data Source: UNHCR population data
- Data publicly available: No
- Technology/Platform: open-source/python
- Related Sustainable Development Goals (SDGs): SDG 10 - Reduced Inequality; SDG 16 - Peace, Justice, and Strong Institutions; SDG 17 - Partnership for the Goals
- Partnership(s)/Collaborator(s): Government of Mexico
- Relevant Links and Multimedia: <https://daf-mexico.unhcr.org/>
- Lesson Learned:
- Contact information: Moisés Maldonado maldonam@unhcr.org ; Jose Jahatziel Toledo González toledogo@unhcr.org Rachid Guerrero guerrerr@unhcr.org

Project 5: Unlocking Artificial Intelligence's Potential in Country of Origin Information (COI)

- Project Description: UNHCR conducted research exploring the potential of Artificial Intelligence (AI) in enhancing Country of Origin Information (COI) research. This research aims to leverage AI-driven tools to automate and improve data analysis, enabling researchers to process vast datasets quickly and accurately. By uncovering patterns, cross-referencing information, and producing high-quality, evidence-based reports, AI tools can significantly enhance the efficiency and effectiveness of COI research. This research also addresses the limitations and risks associated with modern AI systems, emphasizing informed and responsible application to maximize benefits without compromising the integrity of information. The research aligns with UNHCR's commitment to innovation and the use of advanced technologies to support asylum procedures and refugee protection. The research is a collaborative effort involving academic institutions and AI research organizations. By integrating AI technologies into COI research, UNHCR aims to streamline the process of gathering and analyzing information about countries of origin, which is crucial for making informed decisions in asylum cases. The research also focuses on continuous evaluation and adaptation to address the limitations and risks associated with AI, ensuring that the tools developed are reliable and effective.

- Department/Division: UNHCR Division of International Protection (DIP)
- Project Type/Output: Research
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Forced displacement, Human rights, Asylum Determination Procedures
- Data Source: country of origin information, case management data
- Data publicly available: No
- Technology/Platform: not applicable
- Related Sustainable Development Goals (SDGs): SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s): University of Amsterdam
- Relevant Links and Multimedia: <https://www.refworld.org/reference/lpprs/unhcr/2025/en/149514>
- Lesson Learned:
 - Bias and Inaccuracy: AI systems can produce biased or inaccurate results if the training data is not representative or if the algorithms are not properly calibrated. This can lead to flawed conclusions and affect the quality of COI research.
 - Over-Reliance on AI: There is a risk of over-reliance on AI tools, which may overlook the nuanced understanding and contextual knowledge that human researchers bring to COI analysis. AI should complement, not replace, human expertise.
 - Data Privacy and Security: Ensuring data privacy and security is a critical challenge. AI systems must be designed to protect sensitive information and comply with data protection regulations to prevent misuse or unauthorized access.
 - Complexity of Implementation: Integrating AI into COI research involves complex technical and operational challenges. It requires significant investment in infrastructure, training, and ongoing maintenance to ensure the systems function effectively.
 - Ethical Considerations: The use of AI in COI research raises ethical concerns, including the potential for misuse of data and the need for transparency in AI decision-making processes. It is essential to establish ethical guidelines and oversight mechanisms to address these issues.
 - Continuous Monitoring and Adaptation: AI systems require continuous monitoring and adaptation to remain effective. Regular updates and feedback loops are necessary to address evolving challenges and improve the accuracy and reliability of AI tools.
- Contact information: Elise Currie-Roberts curriero@unhcr.org ; Adriana Rojas Arnaud rojasa@unhcr.org

Project 6: The Use of AI to strengthen information integrity in digital platforms

- Project Description: UNHCR guide to strengthening information integrity on digital platform
- Department/Division: UNHCR Division of External Relations (DER)
- Project Type/Output: toolkit
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Forced displacement, Human rights, Misinformation, Information integrity
- Data Source: social media
- Data publicly available: yes
- Technology/Platform: Web-based application

- Related Sustainable Development Goals (SDGs): SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s):
- Relevant Links and Multimedia: <https://www.unhcr.org/handbooks/informationintegrity/> and <https://www.unhcr.org/innovation/using-social-media-in-community-based-protection/>
- Lesson Learned:
 - UNHCR has taken proactive steps to address information risks: In 2023, UNHCR launched its Information Integrity workstream to tackle these challenges, forming a key part of its Digital Transformation Strategy under the Digital Protection pillar.
 - Digital channels present both opportunities and risks: While digital platforms offer new avenues for forcibly displaced and stateless people to access information and services, they also introduce significant risks to protection and humanitarian action.
 - AI tools contribute to the erosion of information integrity: Artificial Intelligence is increasingly used to generate and spread manipulated information, while simultaneously suppressing trusted sources, facts, and testimony through algorithmic bias.
 - Information integrity is critical to protection and humanitarian response: The erosion of trustworthy information in the digital space poses growing threats to the protection of people forced to flee and to the effectiveness of humanitarian efforts.
 - Trust in AI-generated information is difficult to establish: In volatile humanitarian contexts, the challenge of determining the trustworthiness of AI-generated content complicates decision-making and can undermine response efforts.
 - Understanding digital information behavior is essential: Gaining insight into how people interact with the evolving information ecosystem—especially during emergencies—is vital for ensuring informed and safe decision-making.
 - Field-based pilots provide valuable models: The workstream has supported practical projects in nine UNHCR field operations across three regions, including the Rohingya context, offering scalable models for future field activities.
 - Ethical AI use is imperative: Given UNHCR’s experience and leadership in AI, it is essential to promote and operationalize the ethical use of AI in combating misinformation, disinformation, and hate speech.
- Contact information: Gisella Lomax LOMAXG@unhcr.org ; Katie Drew DREW@unhcr.org

Project 7: Virtual Legal Assistant (VLA) for UNHCR Rights Mapping and Analysis Tool (RIMAP)

- Project Description: Asylum seekers and other people in need of international protection often face significant barriers in accessing timely and accurate legal support, which can delay their ability to secure rights and protections and legal status as refugees. Lawyers and humanitarian workers are overwhelmed by the volume of legal queries and the complexity of legal instruments, leading to delays. In addition to this, restrictive legal frameworks and lack of resources in the legal system further complicate the provision of legal aid, making it difficult for asylum seekers and refugees to navigate their legal rights. In order to tackle these challenges, UNHCR has developed the Rights Mapping and Analysis Platform (RiMAP), a publicly available web-based initiative designed to centralize comprehensive legal and policy information related to forcibly displaced and stateless populations. To enhance RiMAP, UNHCR is integrating an internal Virtual Legal Assistant (VLA) powered by Artificial Intelligence (AI). This initiative aims to facilitate legal data collection, improve policy analysis, and make this information more accessible to internal users. The VLA will process and analyze large volumes of legal documents, including laws, policies, and narrative reports, from national legal libraries and websites pertaining to all UN countries and territories. By leveraging AI, the VLA will enable UNHCR

to analyze evolving legal landscapes, ensuring that the organization stays up to date with legal developments. This automation will significantly reduce the manual effort required to track and gather legal data, ensuring that RiMAP remains current without the heavy workload traditionally involved in such research.

The secondary goal of this project is to expand the VLA's functionality to support users by transforming it into an AI-powered chatbot. This chatbot will provide easily accessible and user-friendly legal information derived from the RiMAP library. The VLA's capabilities will span across all UN member states and territories, ensuring that users have access to a comprehensive, global legal resource. This will empower users to navigate complex legal systems and better understand the rights of displaced and stateless persons, enabling more informed advocacy and facilitating greater legal support for such populations. The chatbot will offer an intuitive interface that allows users to interact with the VLA, ask questions, and receive legal information in a more conversational and accessible format.

- Department/Division: UNHCR Innovation Service, [Data Innovation Fund](#) 2024-2025, UNHCR Division of International Protection (DIP)
- Project Type/Output: AI-powered Virtual Legal Assistant (Generative AI)
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Forced displacement, Human rights, rule of law
- Data Source: publicly available legal documentation, legal instruments, treaties, other legislation
- Data publicly available: Yes
- Technology/Platform: Large Language Models (LLMs), Generative AI
- Related Sustainable Development Goals (SDGs): SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s): UNICC
- Relevant Links and Multimedia: <https://rimap.unhcr.org/user/login?destination=/countries>
- Lesson Learned:
 - Data Collection Challenges: Collecting and maintaining up-to-date legal information across multiple countries is challenging due to limited human and financial resources. AI can automate this process, but it requires robust algorithms and continuous updates to ensure accuracy.
 - Human-AI Collaboration: While AI can automate data collection and analysis, human oversight is essential to ensure the relevance and accuracy of the information. A hybrid approach combining AI efficiency with human contextual understanding is necessary.
 - Legal Complexity: Legal frameworks are often fragmented and complex. AI must be capable of navigating these complexities to extract and summarize relevant legal data effectively.
 - User Accessibility: Transforming the VLA into an AI-powered chatbot enhances accessibility, allowing users to interact with the system in a conversational format. This requires designing an intuitive interface that caters to users with varying levels of legal knowledge.
 - Ethical Considerations: Ensuring ethical use of AI in legal analysis is crucial. This includes maintaining transparency about the methods used, protecting sensitive information, and adhering to ethical guidelines.
 - Continuous Improvement: Regular evaluation and adaptation of AI algorithms and processes are necessary to address emerging challenges and improve the system's effectiveness. Feedback from users and stakeholders is vital for ongoing refinement.
 - Scalability: Expanding the VLA's capabilities to support users globally requires scalable technology solutions. This includes extending language support and ensuring the system can handle large volumes of data across different regions.

- Contact information: Esther Benizri benizri@unhcr.org

Project 8: New Privacy Technologies for Better Data Sharing

- **Project Description:** As part of its commitment to promoting open data and staying at the forefront of privacy technologies, UNHCR has undertaken a project to explore the use of synthetic data for its Microdata Library datasets. This project aims to develop a generalized approach for releasing full-size, differentially private synthetic registration datasets across multiple countries. Synthetic datasets are generated using randomly created dummy values that preserve many of the statistical properties of the original data, making them a valuable resource for research and analysis. Data security is ensured through differential privacy, a state-of-the-art privacy-enhancing technology that provides a rigorous mathematical framework for protecting sensitive information. This approach is particularly beneficial when working with datasets that represent full enumerations, such as registration data.

The project addresses the limitations of previous statistical disclosure control methods, which required sampling and reduced data utility. UNHCR contacted Microdata Library users to identify their needs, scoped state-of-the-art technologies, and identified the most suitable algorithm and software library (OpenDP SmartNoise Synthesizers, using the MST Algorithm as the base synthesizer). An Azure UNHCR server workspace was set up to extract and process the data. The technologies were tested successfully, and synthetic registration datasets were prepared for publication. This initiative marks a significant advancement in data sharing practices, enabling UNHCR to make registration data available on the UNHCR Microdata Library using synthetic data for the first time. The synthetic registration datasets will be accessible in the dedicated collection, supporting program planning for shelter, food, water, healthcare, sanitation, cash-based interventions, and other targeted aid.

- **Department/Division:** UNHCR Innovation Service, [Data Innovation Fund](#) 2024-2025, UNHCR Global Data Service (GDS)
- **Project Type/Output:** Research
- **Project Status:** Completed
- **Project Start Year:** 2024
- **Project Domain:** Forced displacement, Human rights, rule of law
- **Data Source:** various sources, including UNHCR microdata library and registration data
- **Data publicly available:** Yes
- **Technology/Platform:** Differential privacy, synthetic data generation (OpenDP SmartNoise Synthesizers, using the MST Algorithm as the base synthesizer)
- **Related Sustainable Development Goals (SDGs):** SDG 10 – Reduced Inequality; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnership for the Goals
- **Partnership(s)/Collaborator(s):**
- **Relevant Links and Multimedia:** <https://microdata.unhcr.org/index.php/synthetic-data>
- **Lesson Learned:**
 - **Data Utility vs. Privacy:** Balancing data utility and privacy is challenging. While synthetic data preserves statistical properties, it may not capture all nuances of the original data, potentially affecting the quality of insights derived from it.
 - **Algorithm Selection:** Choosing the right algorithm is crucial. The effectiveness of synthetic data generation depends on the algorithm's ability to accurately replicate the statistical properties of the original data while ensuring privacy.
 - **User Needs Assessment:** Engaging with data users to understand their needs is essential. This ensures that the synthetic datasets produced are useful and meet the requirements of researchers and analysts.

- Technical Infrastructure: Setting up a robust technical infrastructure, such as an Azure server workspace, is necessary for processing and managing large datasets. This includes ensuring data security and efficient data handling.
 - Training and Resources: Providing adequate training and resources for staff and partners is important for the successful implementation of new technologies. This includes developing practical guides and offering support for using synthetic data methodologies.
 - Continuous Evaluation: Regularly evaluating the performance of synthetic data and the underlying algorithms is necessary to ensure ongoing effectiveness and address any emerging issues.
 - Ethical Considerations: Ensuring ethical use of synthetic data is paramount. This includes maintaining transparency about the methods used and the limitations of synthetic data, as well as protecting the privacy of individuals represented in the datasets.
- Contact information: Federico Sanson sanson@unhcr.org ; Alejandra Moreno Ramirez morenoal@unhcr.org ; Margherita Leonelli leonellm@unhcr.org

2. Related Sustainable Development Goals

SDG 3, 8, 9, 10, 13, 16, and 17

3. Relevant Links

<https://www.unhcr.org>

<https://www.unhcr.org/innovation/data-innovation/>

- Contact information: Hovig Etyemezian (etyemezi@unhcr.org), Rebeca Moreno Jimenez (morenoji@unhcr.org), and Sofia Kyriazi (kyriazis@unhcr.org)

United Nations International Computing Centre



1. Description of Activities on AI

Project 1: Detection of Xenophobic Language and Misinformation in Media Content

- **Project Description:** The Detection of Xenophobic Language and Misinformation in Media Content project was a collaborative effort conducted between UNICC, UNESCO, IOM, and New York University SPS Capstone participants from 2024. The rise of xenophobic language and misinformation in media narratives, particularly those involving migrants, refugees, and displaced communities, has prompted the need for tools that promote balanced, fact-based journalism that respects the rights and dignity of vulnerable populations. While negligent content amplifies harmful stereotypes and false narratives, manually screening for such content is costly, slow, and prone to error.

In this context, UNICC collaborated with the NYU School of Professional Studies (students & faculty) to develop a comprehensive data labeling approach aimed at categorizing information based on its tone and intent. Together, we established the following classification criteria:

- "toxic" : Content containing generally harmful or offensive language intended to provoke or hurt.
- "severe_toxic" : Highly aggressive or extreme language with intense hostility or derogatory tone.
- "obscene" : Language that includes vulgar or sexually explicit content inappropriate for public discourse.
- "threat" : Statements expressing intentions to cause harm or incite violence against individuals or groups.
- "insult" : Content that demeans or ridicules someone based on personal characteristics or affiliations.
- "identity_hate" : Hate speech targeting individuals or groups based on identity markers like race, ethnicity, religion, or nationality.

The project aimed to build an AI-based media analysis tool to identify and mitigate xenophobic language, misinformation, and harmful narratives in media coverage to address these ethical challenges of reporting on human mobility by fostering informed and unbiased journalism. The primary goal is to create a robust AI tool that leverages advanced language models to detect harmful content, ensure ethical reporting, and support media outlets in providing balanced narratives about vulnerable communities.

- Project Type/Output: Academic paper, AI tool
- Project Status: Complete
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Education, Human Rights, Justice
- Data Source: Publicly available data (GitHub + Kaggle). Please find the link to all the datasets used [here](#).

- Technology/Platform: Python notebooks & Final presentation uploaded to UNICC GitHub.
- Related SDGs: SDG 16 – Peace, Justice, and Strong Institutions, SDG 17 – Partnerships for the Goals
- Partners:
 - UN Partners: UNESCO, IOM
 - Academia: NYU School of Professional Studies
- Links and Multimedia:
 - <https://www.unicc.org/news/2025/01/29/transformational-ai-solutions-through-academic-partnerships/>
- Lessons Learned:
 - Nuance Matters: An interesting observation was how detecting xenophobia is context-sensitive.
 - Many terms must be interpreted with context and not just keyword matching.
 - Data Labeling Challenges: These challenges arose due to the uneven distribution of content types. For instance, common labels like "toxic" were well-represented, while rare but important labels like "threat" had limited examples. This imbalance made it harder for the AI to learn and accurately detect less frequent but critical content types, requiring special attention during training and evaluation to ensure balanced model performance.
 - Future Plans for Expansion: Moving forward, we are focused on enhancing the model's capabilities by expanding its architecture. This ongoing evolution reflects our commitment to continuous improvement and to maximizing the impact of our project.
- Contact information: Anusha Dandapani (dandapani@unicc.org)

Project 2: Development of an Open AI-enabled BOT Platform for UNECE

- **Project Description:** The Development of an Open AI-enabled BOT Platform for the United Nations Economic Commission for Europe (UNECE) project was a collaborative effort conducted between UNICC and Cornell University Break Through Tech Capstone participants from 2024. The project aims to develop an AI-driven BOT platform powered by Large Language Models (LLMs) designed to assist policymakers, research students, and other stakeholders in efficiently querying and extracting relevant knowledge and insights from the extensive UNECE PDF documentation and library. This platform will help stakeholders quickly access critical information needed to make informed decisions, particularly in the areas of sustainable energy and climate change.
- Project Type/Output: Academic paper, AI tool
- Project Status: Complete
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Operational improvement & Process efficiencies
- Data Source: Publicly available official documentation from the UNECE website, which includes extensive PDF reports related to coal mine methane, energy systems, carbon neutrality, and resource management. Please find the links to the datasets [here](#).
- Technology/Platform: Python notebooks & Final presentation uploaded to UNICC GitHub; Reusable Python classes and modules.
- Related SDGs: SDG 13 – Climate Action, SDG 17 – Partnerships for the Goals
- Partners:

- UN Partners: UNECE
- Academia: Cornell Break Through Tech
- Links and Multimedia:
 - <https://www.unicc.org/news/2025/01/29/transformational-ai-solutions-through-academic-partnerships/>
- Lessons Learned:
 - Complexity in Open Source Model Selection: Not all open-source models are suitable for retrieval-based Q&A tasks. Older models like BERT or GPT-2 lacked sufficient inference capabilities for context-aware answers. The team, therefore, chose LLaMA 3.1 for its superior multilingual support, conversational ability, and compatibility with fine-tuning frameworks like LoRA.
 - Model Compression Enables Efficient Deployment: By using 4-bit quantization on LLaMA 3.1, the team successfully ran a large-scale language model on Google Colab's limited GPU. This demonstrated how model compression techniques make advanced AI tools accessible even in low-resource environments.
- Contact information: Anusha Dandapani (dandapani@unicc.org)

Project 3: Gender Bias Overview Tool (GenBOT)

- Project Description: The Gender Bias Overview Tool (GenBOT) project involved a partnership among UNICC, UNFPA, and Columbia University Capstone participants from 2024. Gender bias in datasets, particularly in the field of machine learning and AI, has been a long-standing issue. Despite efforts toward inclusivity and diversity, women remain underrepresented in various stages of tech development, leading to inherent biases in datasets. These biases perpetuate themselves in the development of machine learning models and algorithms, causing skewed or inaccurate outputs that reinforce existing gender disparities.
To address this issue, UNICC collaborated with UNFPA and Columbia University (students and faculty) to develop GenBOT, an adaptable data-auditing solution that provides users insights on gender bias in their datasets through automated AI analytics. The tool aims to guide stakeholders in creating equitable, gender-inclusive technologies and services.
- Project Type/Output: Academic paper, AI tool
- Project Status: Complete
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Gender, Human Rights, Justice
- Data Source:

The project utilised structured (i.e. csv, tsv, json) and unstructured (i.e. pdf) datasets to assess gender bias.

 - Clinical Trials (Structured Data): Included Clinical Research Studies database with gender criteria information.
 - Amazon Online Gender Review (Structured Data): A gender-labelled dataset in the context of consumer online reviews.
 - Multi-Dimensional Gender Bias Classification Dataset (Structured Data): This dataset highlights gender bias by demonstrating how gendered terms have been switched and whether biases are detected.
 - Fortune 500 ESG Reports (Unstructured Data): A collection of reports (110) from Fortune 500 companies, which are classified as gender-inclusive or non-gender-inclusive.

- Please find the links to the datasets [here](#).
- Technology/Platform: Python notebooks & Final presentation uploaded to UNICC GitHub.
- Related SDGs: SDG 5 – Gender Equality, SDG 17 – Partnerships for the Goals
- Partners:
 - UN Partners: UNFPA
 - Academia: Columbia University
- Links and Multimedia:
 - <https://www.unicc.org/news/2025/01/29/transformational-ai-solutions-through-academic-partnerships/>
- Lessons Learned:
 - Context Matters: A key lesson learned was the importance of context in evaluating gender bias. The definition and scope of bias need to be carefully defined with stakeholders to ensure the tool's effectiveness.
 - Thresholds and Metrics: Determining appropriate thresholds for gender bias detection was a significant challenge. The team used established research and studies to refine the metrics used in the tool, ensuring that they aligned with best practices.
 - Stakeholder Collaboration: Continuous communication with stakeholders such as UNFPA and UNICC was crucial in refining the bias thresholds and understanding their specific needs for gender bias detection.
- Contact information: Anusha Dandapani (dandapani@unicc.org)

2. Related Sustainable Development Goals

SDGs 3, 4, 5, 7, 9, 11, 16, 17

3. Relevant Links

<https://www.unicc.org/news/2025/01/29/transformational-ai-solutions-through-academic-partnerships/>

<https://www.unicc.org/news/2022/07/20/unicc-academic-partnerships-help-students-take-learning-beyond-the-classroom/>

- Contact information: Anusha Dandapani (dandapani@unicc.org)

United Nations Children's Fund



1. Description of Activities on AI

Project 1: End-Year Summary Narrative Quality Assurance Tool

- Project Description: End-year reports are important instruments for accountability and monitoring of UNICEF's ongoing performance for all offices. The End-year Summary Narrative (EYSN) component is posted on UNICEF's [external website](https://open.unicef.org/), making it accessible to the general public – including through UNICEF's Transparency Portal (<https://open.unicef.org/>). It needs to be written in a style and tone that is appropriate, credible, relevant, and understandable for external audiences. It is important to ensure the quality of the report, as well as guarding against the inclusion of statements that may give rise to reputational risk to UNICEF and partners in the public domain.
Collaborating with UNESCWA, UNICEF DAPM developed an AI-driven quality assurance tool that can quickly scan the draft EYSN reports and assess the degree of adherence to reporting guidelines, flag any potential reputation risk language, and perform certain editorial check functions. This tool was offered to COs during 2021 end year reporting period and helped achieve efficiency gains and improve the overall quality of final reports.
- Department/Division: Division of Data, Analytics, Planning and Monitoring (DAPM)
- Project Type/Output: Software tool
- Project Status: Completed
- Project Start Year: 2021
- Project End Year: 2022
- Domain: Improved quality of end-year summary narrative reporting that's made available to the public, as well as guarding against the inclusion of statements that may give rise to reputational risk to UNICEF and partners in the public domain.
- Data Source: Executive analyses of key aspects of annual results and management performance for both external and internal audiences.
- Link to data: Past reports - [Country, Regional and Divisional Annual Reports 2020 | UNICEF](#)
- Data is publicly available: Yes
- Technology/Platform: Net core with ML running on Python. Frontend build with Angular
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Partners: UN Partners: UN ESCWA
- Contact information: Sanjana Gaddam, Timothy Takona (sgaddam@unicef.org, ttakona@unicef.org)

Project 2: AI4D Research Bank

- Project Description: Data gaps hinder the development sector from implementing evidence-based programs for children and other vulnerable populations. Access to updated and high-resolution data would help unlock timely insights for decision making such as vulnerability, economic activity, and environmental conditions. The

AI4D Research Bank will leverage various geospatial analytic solutions to help fill in and augment data gaps, scaling poverty estimation efforts and air quality exploratory research, while promoting open science by giving other data scientists access to datasets and machine learning model training references. Access to updated and high-resolution data would help unlock timely insights for decision making such as vulnerability, economic activity, and environmental conditions. The resulting web app is designed for both data scientists and program staff, and will offer a Data Catalogue, a Model Catalogue, and API Functionality to ensure replicability. Funding for this initiative is made possible through the UNICEF Venture Fund, Office of Innovation.

- Department/Division (if applicable): Frontier Data Hub, Regional Office for East Asia and the Pacific islands (EAPRO), Office of Innovation
- Project Type/Output: Software tool
- Project Status: Development
- Project Start Year: 2021
- Project End Year: 2022
- Domain: Environment and Poverty
- Data Source: Our poverty estimation model features a low-cost and efficient implementation that will use publicly available data sources:
 - Google Earth Engine satellite images
 - Facebook High Resolution Settlement Layer
 - OpenStreetMap
 - Ookla Internet Dataset
- The exploratory air quality research side of the platform will use data from:
 - Satellite Imagery MODIS, VIIRS (NASA Earth Data)
 - Mapillary Street-level Sequences Dataset image dataset for Bangkok
 - Meteorological data from the [World Air Quality Index](#)
- Data is publicly available: Yes
- Technology/Platform: The web app itself will be open sourced and data analysis made available via an API. The repository will be maintained on GitHub.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 13 – Climate Action; SDG 16 – Peace, Justice, and Strong Institutions
- Partnerships:
 - UN Partners: UNICEF
 - Private Sector: Thinking Machines
- Links: Partner's website: <https://thinkingmachin.es/>
- Lessons Learned: The bulk of the development work for the AI4D Research Bank will happen in 2022. During 2021, UNICEF and the technology partner co-designed the project through a constant communication of respective priorities and interests. This alignment is paramount on such projects, where the capacity and expertise of partners is crucial to guarantee the rigor and speed of execution. We will create an impact assessment report to evaluate the use of the AI4D Research Bank, poverty estimation models, and air quality estimation research. We will gather information on how these models and tools have helped other users' work and inputs to future iterations.
- Contact information: Karim Ghalaini (kghalaini@unicef.org)

Project 3: Safer Chatbots

- **Project Description:** Chatbots, including those run by UNICEF, often do not detect, or respond to users' attempts to seek urgent help with potentially life threatening experiences. The Safer Chatbots project aims to standardise safeguarding mechanisms within any chatbot reaching vulnerable communities, especially those engaging girls and women. Safer Chatbots includes 3 options for chatbot implementers who wish to improve the ability of their chatbot to detect and respond automatically to safeguarding disclosures, for example, messages from users indicating they have experienced or are at risk of serious harm including Gender Based Violence or suicidal ideation. Implementers can take inspiration from tried and tested mechanisms which have been accessibly documented via Implementation Guidelines and piloted by 3 UNICEF country offices. Chatbot developers do not have to be running an AI powered chatbot, but one of the options is powered by an NLP model developed and tested by external partners with our support. Mechanisms and guidelines can be implemented on any chatbot-building software but the guidelines have been tailored for those using platforms such as RapidPro, unice and Bothub. By implementing a Safer Chatbot mechanism, chatbot developers can improve the safety of their chatbots' users and ensure they get the support they need from appropriate referral services.
- **Department/Division:** Gender (EAPRO)
- **Project Type/Output:** The main output of this project is implementation guidelines including RapidPro flows. Through a partnership with external organisations we have also produced a first draft of a safeguarding NLP model.
- **Project Status:** Completed
- **Project Start Year:** 2020
- **Project End Year:** 2021
- **Domain:** Gender, Health
- **Data Source:** Data used for the development of the NLP model option was collated anonymously based on training data from external partners. No other data is involved in this project until the point of implementation, at which point the data collected depends on that collected by the implementer, but may include anonymised safeguarding disclosures, and demographic data including age and gender.
- **Data is publicly available:** Yes
- **Technology/Platform:** Templates have been created and made available using RapidPro (.json files available as part of project documentation). One of the options is available via the Turn.io platform as a template, and the other via Weni/Bothub as well as via Github.
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good Health and Well-Being; SDG 5 – Gender Equality; SDG 16 – Peace, Justice, and Strong Institutions
- **Partnerships:**
 - Private Sector: Weni, technical partner
 - NGO: Girl Effect, technical partner
- **Lessons Learned:** One of the biggest challenges was understanding what other initiatives may already be in motion to address this important problem within UNICEF, and ensuring we were not doubling up our efforts. Secondly, although local teams running or planning chatbots recognised the importance of this issue, it was hard for them to prioritise addressing it amongst the many other pressing issues involved in running/developing a chatbot. For us this emphasised the importance of making this mechanism available as part of the 'standard' templates for teams wishing to roll out a new chatbot, and a pre-condition for its release to vulnerable users.
- **Contact information:** Gerda Binder (Gbinder@unicef.org)

Project 4: Spotlight

- Project Description: Spotlight is a project to predict country-level changes in the ACLED data set (events and fatalities) using the news-report event data set GDELT. It will be used to inform the UNICEF Horizon Scan, a monthly process that seeks to identify a short list of countries facing imminent increases in humanitarian need, to support enhanced country office preparedness. It aims to solve the problem of an absence of statistically proven quantitative forecasting inputs related to changes in conflict intensity.
- Department/Division (if applicable): EMOPS
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: 2022
- Domain: Risk analysis and emergency preparedness, Risk mitigation
- Data Source: News and media events (GDELT), conflict events (ACLED)
- Link to data:
 - <https://www.gdeltproject.org/>
 - <https://acleddata.com/data-export-tool/>
- Data is publicly available: Yes
- Technology/Platform: Microsoft Azure Databricks (Pyspark) Notebooks, Microsoft Azure ML (Pyspark/TensorFlow) Jupyter Notebooks, Microsoft Azure Data Factory, Microsoft SQL Server, Power BI
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions
- Links: Tool is only available on UNICEF internal network
- Lessons Learned: The computing costs associated with calculations on a large dataset are a constraint on exploration. Internal bureaucracy is an impediment to experimentation. A lack of internal expertise is a limit on development.
- Kevin Wyjad (kwyjad@unicef.org)

Project 5: UNICEF Venture Fund

- Project Description: Launched in 2016, the UNICEF Venture Fund makes \$50k - \$100k early-stage investments in technologies for children developed by UNICEF country offices or companies in UNICEF program countries. By providing flexible funding, UNICEF has the ability to quickly assess, fund and grow open-source technology solutions that show potential to positively impact the lives of vulnerable children.

The Venture Fund has made specific calls for solutions that are in the data science and AI space. Specific focus is placed on using satellite imagery or social media to map infrastructure, using natural language processing, generating insights from big data, and curating data from various sources.

In 2021, the fund launched a call for [AI & ML solutions to improve access to and delivery of digital services and systems](#), which resulted in investments in [nine startups](#) developing AI solutions in the health and education space. In 2022, the fund also [announced](#) 2 new investments into Child Online Safety solutions, both utilizing AI to strengthen children's skills to stay safe in the digital world. In 2023 the Fund announced investments in several AI-powered startups as part of its call for [climate change solutions](#). In 2024 UNICEF [funded four additional start-ups](#) in a health, nutrition, mental health, and psychosocial support cohort. UNICEF opened a call for startups working on [AI and Blockchain for Data Integrity and Trust](#) and prepared to [open a call](#) for startups working on FemTech solutions in 2025.

The Fund has made investments of over \$9.6 MM to date in AI-related projects in countries including Argentina, Brazil, Chile, Guatemala, India, Kenya, Mexico, Philippines, South Africa, and Tanzania. For example, UNICEF invested in Afinidata, which offers a personalized, virtual assistant that guides parents with early childhood development tools for children under the age of six. The company has delivered over 2 million educational sessions. Using machine learning, Afinidata has built a content personalization algorithm which increases the use of suggested content, benefiting over 80k families in Latin America.

Startup Investments

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Afinidata	Guatemala	early child development, education	4	Artificial intelligence powered personalized educational development centered (ECD) advice for parents
AfriLearn	Nigeria	education	4	A personalized learning platform for West African curricula that engages students with the help of gamification, recommender systems, and generative AI
Angaza Elimu	Kenya	education	4	AI powered eLearning platform that delivers personalized and mastery based learning experiences to students and amplifies teacher student engagement
AQAI (Formative Resilience)	India	environment, health	3, 11, 13	Multi-modal machine learning models to assess exposure to climate-related pollutants, to identify at-risk demographic groups including children
Avyantra	India	newborn health, child survival	3	Using machine learning for early diagnosis of neonatal sepsis
Bioverse Labs	Brazil	environment, climate	11, 13, 15	Machine learning on remote sensing imagery to identify key tree species that can be sustainably managed and harvested by indigenous communities

Startup Investments (continued)

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Bitz ITC	Kenya	child protection, social protection	3,5,16	Enhancing a call management system for hotlines supporting survivors of gender-based violence and violence against children in Kenya, Uganda, Tanzania and Lesotho with translation, voice recognition and real-time data analytics
Bookbot	Indonesia	education	4	Improving pronunciation, comprehension and reading among primary school children with the help of real-time, on-device speech recognition technology in Bahasa Indonesian
CareNX	India	health	3,5	Piloting the Fetosense fetal heart monitor system to help mitigate the shortage of gynecologists in rural areas, training doctors and collecting data to improve the AI algorithm
Cboard (Cireha)	Argentina, ECARO	support for children with disabilities, education, social inclusion	4	Helping those with speech and language impairments to communicate by symbols and text-to-speech
Project AEDES (Cirrolityx)	Philippines	health	3	Predict dengue cases from climate and digital data and pinpoint possible hotspots from satellite data
OTTAA (Comunicacion Aumentativa)	Chile	education, support for children with disabilities, social inclusion	4	AI enabled communication assistant for children with speech impairments using AI and pictograms
Daktilograf (Om3ga)	Serbia	education	4	A speech-to-text and text-to-speech solution that makes it possible for children with disabilities to communicate

Startup Investments (continued)

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Datawheel Chile	Chile	social and economic policy evaluation	1, 9, 10, 11	Data visualization engine for integrating data from multiple sources
Docokids	Colombia	health	3	An AI-driven, pediatrician-backed chatbot that provides parents in remote areas with 24/7 information and consultation
Dymaxion Labs	Argentina	emergency response, social and economic policy evaluation	11	Using satellite imagery and machine learning to deliver geospatial analytics insights
Equinoct	India	environment, climate, emergency response	11, 13	AI and machine learning with community-sourced data to provide real-time monitoring and early warnings of climate change hazards
Eyebou	UAE	health	3	A smart phone application that can detect eye abnormalities such as strabismus
Geospoc GeoSpatial	India	connectivity, education	3, 4, 8, 9, 11	Platform using artificial intelligence and machine learning with satellite data to map schools and hospitals in India
Giraffe	South Africa	youth engagement, education, social inclusion, upskilling young people's digital skills for the future	4, 8, 10	Job matching portal connecting employers and jobseekers, while also generating insights around critical skills in demand.
Weni (Ilhasoft)	Brazil	education, health, emergency response, child protection	3, 4	Open platform for training and sharing Natural Language Processing datasets in multiple languages
Elsa (Inspired Ideas)	Tanzania	health	3	Health Assistant tool, powered by artificial intelligence

Startup Investments (continued)

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Intelligent Network Solutions	Albania	environment, climate, water and sanitation	6, 11, 13, 15	Integrating machine learning with a geographic information system platform to detect illegal waste landfills while monitoring changes in legal landfills
ISTEM	India	education, support for children with disabilities, social inclusion	3, 4, 10	Dashboard for students with disabilities providing automated workflows, accessible content conversion, and mentorship matching services
Jellow (Ninaad Digital Technology)	India	education, support for children with disabilities, social inclusion	3, 4, 10	An open-source app for children with speech impairments to communicate using symbols
Jobzi	Brazil	education, capacity building, upskilling young people's digital skills for the future	4, 8, 10	Forecasting the influence of school connectivity on employment and educational outcomes
Kimetrica	Kenya	nutrition, health, child survival	2, 3	AI-based tech to detect severe malnutrition from an image
Map Action	Mali	environment, climate	11, 13	A dynamic platform that empowers citizens and organizations to report on environmental incidents
Map&Rank	Cameroon	environment, climate	11, 13	Machine learning platform to deliver climate risk information and facilitate disaster preparedness in vulnerable communities
Moner Bondhu	Bangladesh	mental health	3	Offering accessible and affordable well-being services for children and young adults via an AI-powered chatbot (Manush-E)

Startup Investments (continued)

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Neural Labs Africa	Kenya	health	3	Deep learning and computer vision to screen medical images in real time to identify diseases such as pneumonia and tuberculosis
Towi (Pixframe Studios)	Mexico	education	4	Game-based learning tools customized using data science
Portal Telemedicina	Brazil	health	3	A telehealth and population health management platform for streamlining information from fragmented and disparate data sources for faster, more reliable, and lower-cost diagnostics
qAIRA	Peru	environment, climate, health	3, 11, 13	AI to process sensor data and create air pollution maps that visualize air quality
SolarRec (Renovus Clean Energy)	Uruguay	environment, climate	11, 13	An AI-powered platform connecting solar generators to create carbon offsets and finance additional solar panel installations
Similie	Timor Leste	environment, climate, emergency response	11, 13	An Early Warning System using machine learning and low-cost sensors to assess risk levels and mitigate the effects of natural disasters
Simple Maps (Rentadrone)	Chile	environment, climate	11, 13	Detects, classifies, and organizes the errors and damaged modules in solar plants and assesses crop disease using thermal imagery
Somleng (Chatterbox)	Cambodia	emergency response	11, 13	An interactive voice response platform that was used to create an early warning system that sends cell phone warning messages to people at risk of seasonal flooding

Startup Investments (continued)

Portfolio Company Name	Country	Programmatic/ Operational Area	SDGs	One-Line Summary
Talk2U	Brazil	education, child protection	4, 5	An interactive learning experience to raise awareness about the impact of hate speech on young people with the goal of strengthening emotional intelligence and mental wellbeing in youth
Thinking Machines	Philippines	emergency response, social protection	10, 11	Mapping hard-to-reach areas and connecting communities to resources using artificial intelligence and geospatial analysis
Tilli	Sri Lanka	education, child protection	4, 5	An AI-powered play-based social-emotional learning (SEL) tool for children
Vrapeutic	Egypt	education, social inclusion	4	Virtual reality content to promote skill-based learning in children with ADHD and autism, with the help of AI to enrich customizable educational scenarios
WonderTree	Pakistan	education, social inclusion	4	Augmented Reality to create games for children with disabilities that are based on physiotherapy and cognitive exercises
Cryptolab (Xcapit)	Argentina	social protection	1, 10	A financial services platform powered by blockchain and AI that enables financial planning, gamified savings and wealth management
Yuddee 2 (Beijing Daokoudai)	China	education, support for children with disabilities, social inclusion	4	Personalized learning for children with autism to help develop complex sentence structures

Country Office Investments

Country	Project	Description
Colombia	Big Data for Emergencies and Resilience	AI for emergency preparedness in Colombia
Iraq	Monitoring child poverty through new methods and data	Poverty estimation using big data and AI
Kazakhstan	Causal Machine Learning to Enhance Policy Design	Explore the potential of causal machine learning models with administrative datasets to enhance policy design by identifying differential impacts of programs by subgroups
Brazil	Big Data for Epidemics	Big data to predict and prevent tropical disease transmission in Brazil
India	Safetipin	Using Machine Learning to analyze night-time images taken by taxi cabs to provide insights on safety of public spaces to women and girls
Mexico	MatematIA (Pixframe Studios)	AI-powered game based learning tool to enhance mathematics skills in upper secondary school children. Developed by Innovation Fund alumni Pixframe.
India	UniLearn	Learning management system that will use AI / ML to provide personalized learning for children
EAPRO, Indonesia	Thinking Machines	Data Science & ML to use new and different data sources for better poverty estimations and insights on pollution. Implemented jointly with fund alumni Thinking Machines.
Mongolia, Indonesia	Oky	A period tracking app that promotes privacy and provides positive and accurate information about reproductive health
Greece, Eastern Caribbean	FunDoo	A digital life skills development tool for adolescents and young adults that is integrated into U-Report

- Department/Division: Office of Innovation
- Project Type/Output: Software tool, Investments into early stage open source frontier technologies (including AI, ML, data science) developed by startups in UNICEF's programme countries or UNICEF's Country Offices.
- Project Status: Ongoing
- Project Start Year: 2016
- Project End Year: ongoing
- Domain: Environment, Education, Gender, Health, Poverty, and Risk mitigation
- Related Sustainable Development Goals (SDGs) SDG 1 - No Poverty; SDG 3 - Good Health and Well-Being; SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 8 - Decent Work and Economic Growth, SDG 9 - Industry, Innovation, and Infrastructure, SDG 10 - Reduced Inequalities, SDG 13 - Climate Action; SDG 15 - Life on Land; SDG 16 - Peace, Justice, and Strong Institutions
- Partnerships:

- Government: Country governments that are implementing partners to the Country Office solutions
- Private Sector: Startup companies
- Links:
 - <https://www.unicefinnovationfund.org>
 - <https://www.unicef.org/innovation/venturefund>
 - <https://www.facebook.com/unicef.innovation>
 - <https://twitter.com/UNICEFinnovate>
 - <https://www.instagram.com/unicefinnovate/>
 - <https://www.linkedin.com/showcase/unicef-innovation/>
 - <https://www.unicef.org/innovation/impact-brief-2024>
- Lessons Learned: As AI becomes increasingly pervasive across all programmatic areas in which UNICEF works, the demand and the opportunities for investing in AI solutions for children keep growing. It is important to discern where AI can deliver the greatest impact in advancing UNICEF's priorities, providing added value to the programmes, and realizing the transformative potential of AI to scale solutions for children.
- Contact information: Sunita Grote (sgrote@unicef.org)

Project 6: UNICEF Policy Guidance on AI for Children

- Project Description: From 2019 to 2021, UNICEF Innocenti – Global Office of Research and Foresight led a two-year project to better understand how Artificial Intelligence (AI) systems can protect, provide for, and empower children. Key to this project was the development of a guide for creating and implementing AI policies and systems that protect children's rights and brings the attention of the public and private sectors to how AI systems impact on children. To develop the guidance over 200 experts were consulted in 5 regions, and 245 children were consulted on AI issues. UNICEF also worked with eight governments, companies, and non-profit organizations to "pilot" the guidance. The results were released as case studies and a version 2 of the [Policy Guidance on AI for Children](#) was published during the first-ever Global Forum on AI for Children. The guidance has been translated into French, Spanish and Arabic.
- Department/Division: Innocenti – Global Office of Research and Foresight
- Project Type/Output: Report, Policy Framework, and Conference (multiple meetings on a theme)
- Project Start Year: 2019
- Project End Year: Ongoing
- Project updates: The current guidance has been taken up in AI regulations and strategies, e.g. the Government of Scotland adopted it in its national AI strategy. It has also been used widely for advocacy and improved practice within companies that develop AI systems, such as H&M's use of the policy guidance to update their responsible AI framework, and as a tool by the UN, civil society and others to implement child-centred AI. The guidance is currently being updated to reflect today's evolving AI technology and policy landscape. The updated version will be published in 2025.
- Domain: Education, Human Rights, Child rights, and Digital technologies
- Related Sustainable Development Goals (SDGs): SDG 3 – Good Health and Well-Being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth
- Partnerships:
 - Government: Government of Finland

- Links: <https://www.unicef.org/innocenti/projects/ai-for-children>
- Lessons Learned: There is ongoing need for greater guidance on how to develop AI policies and systems that uphold child rights, and that meaningfully include children in the process. While there is a promising increase in children's rights being mentioned in AI regulations and normative instruments, children remain a stakeholder group that is not prioritized even while they are at the forefront of AI adoption and usage.
- Contact information: Steven Vosloo (svosloo@unicef.org)

Project 7: UNICEF's Good Governance of Children's Data

- Project Description: Since data is a key input into AI systems, the governance of children's data to ensure child-centred AI is critical. UNICEF developed a [Manifesto](#) that sets aspirational benchmarks to guide governments, the private sector and international organizations in developing data governance that take full account of children's issues and rights. The Manifesto proposes the world we want and aims to address ambiguous or sensitive areas where there are no straightforward answers. To develop this Manifesto, a [working group](#) of 17 global experts from the private sector, academia, think tanks and others provided analysis, insights, guidance and comments. They wrote [short commentaries](#) examining data governance approaches, evidence, gaps and grey or conflicting areas. A wider group of experts was engaged through convenings, webinars and consultations throughout the year.
- Department/Division: Office of Global Insight and Policy
- Project Type/Output: Report
- Project Status: Completed
- Project Start Year: 2020
- Project End Year: 2021
- Project updates: A Manifesto that articulates a vision for a better approach to children's data has been published.
- Domain: Human Rights, Child rights, Digital technologies, Data
- Links: <https://www.unicef.org/globalinsight/good-governance-childrens-data>
- Related Sustainable Development Goals (SDGs): SDGs 1, 3, 4, 5, 8, 9, 10, 13, 16, 17
- Contact information: Jasmina Byrne (jbyrne@unicef.org)

Project 8: More Water More Life - Groundwater Mapping Project Using Satellite Data

- Project Description: UNICEF's More Water More Life initiative was designed to increase the drilling success rate for groundwater by mapping deep aquifers—bodies of permeable rock that can contain groundwater—with satellites and science. Since 2017, UNICEF has collaborated with the European Union Joint Research Centre (EU-JRC) to develop this new way of mapping groundwater using geospatial imagery and data. Together, EU-JRC and UNICEF found a way to use satellite images in conjunction with conventional exploration techniques to reduce the time and resources required for groundwater feasibility studies. More Water More Life's data-driven approach helps find groundwater before drilling, doubling the drilling success rate. It has improved water access for [1.2 million people](#) (including [740,000 children](#)) in Ethiopia and Madagascar.
- Department/Division: Office of Innovation
- Project Type/Output: Map
- Project status: Ongoing
- Project start year: 2017
- Project end year: ongoing
- Project domain: Water and Sanitation
- Technology/platform: Remote sensing, geospatial AI

- Related SDGs: SDG 6 – Clean water and sanitation, SDG 11 – Sustainable cities and communities
- Partnerships: European Union Joint Research Centre (EU-JRC)
- Relevant links: <https://www.unicef.org/innovation/stories/finding-water-driest-places>
- Lessons learned: Geospatial technology allowed UNICEF to access far-flung areas that would otherwise be impossible to map using conventional survey methods. Remote sensing data allowed UNICEF to cover wide areas, including those traditionally known to be too remote and too fragile due to conflict. In spite of difficult terrain and conflict, More Water More Life proved effective. This provides a strong case for expanding More Water More Life in East and Southern Africa and beyond.
- Contact information: Sunita Grote (sgrote@unicef.org)

Project 9: Climate-Based Ensemble Machine Learning Model to Forecast Dengue Epidemics in Peru and Brazil

- Project Description: Researchers from UNICEF's Office of Innovation worked alongside colleagues from the Latin American and Caribbean Regional Office (LACRO) – plus data scientists from the European Space Agency and researchers across a wide range of universities and institutions – to develop a climate-based ensemble machine learning model to forecast dengue epidemics more accurately. Combining 20 years of data about dengue cases from Brazil and then Peru, satellite-based meteorological products and socioeconomic data, they trained the ensemble machine learning model to learn from the past in order to forecast the near future. The model then autonomously correlated dengue cases with meteorological conditions like temperature, rainfall and altitude, as well as the socioeconomic conditions of the area under analysis, to enable it to forecast caseloads under the different conditions. The forecasts proved to be notably more accurate than estimates using previous approaches, including those that had been based on single machine learning architectures. This indicates that the new ensemble-based approach could provide local health authorities with the timely information they need to prepare for a likely outbreak and ensure intervention to contain the spread of disease and save lives. First piloted in Brazil, the model appeared to be as accurate when tested in a second country – Peru – giving the team confidence that it could be reproduced in other countries.
- Department/Division: Office of Innovation
- Project Type/Output: Epidemiological model
- Project status: Ongoing
- Project start year: 2018
- Project end year: Ongoing
- Project domain: Health, infectious disease, climate impacts
- Technology/platform: Geospatial modeling, remote sensing, ensemble machine learning
- Related SDGs: SDG 3 – Good Health and Well-Being, SDG 13 – Climate action
- Partnerships: European Space Agency, University of California San Diego, Newlight Technologies
- Relevant links:
 - <https://www.unicef-irc.org/publications/pdf/Best-of-unicef-research-2022.pdf>
 - <https://www.unicefusa.org/stories/using-artificial-intelligence-fight-dengue>
 - <https://philab.esa.int/%CF%86-lab-and-unicef-joint-dengue-fever-research-receives-further-award/>
 - <https://www.climatechange.ai/papers/icml2021/10>
- Lessons learned: The single most important finding was that the ensemble machine learning model provided considerably more accurate predictions of dengue outbreaks

than any previous approach. The study also looked at the factors that appeared to have the greatest influence on dengue incidence. While it was no surprise that the case rate for the previous month came out on top, followed by temperature, the next most influential factors were wind speed and direction. The analysis was conducted first in Brazil, which had a longer time-series of dengue cases freely available compared with Peru. The ensemble machine learning model was first trained and validated using the Brazilian dataset, then transferred to the Peruvian context. This proved to be a highly effective solution for countries that lack sufficient dengue data to train machine learning models.

- Contact information: Do-Hyung Kim (dokim@unicef.org), Hanoch Barlevi (hbarlevi@unicef.org)

Project 10: Anomaly Detection in Yemen Cash Transfers

- Project Description: In Yemen, the OOI is piloting AI-based anomaly detection for UNICEF's cash transfer program. The project hopes to build on existing anomaly detection algorithms and move beyond detecting "predictable anomalies" with the use of AI. The goal is to help find suspicious transactions and avoid the loss of much-needed funds, tackling fraud in a cash transfer program that has already reached 1.4 million beneficiaries and impacted 9 million people, almost a third of the country's population.
- Department/Division: Office of Innovation
- Project Type/Output: Open source anomaly detection modules for risk mitigation
- Project status: Ongoing
- Project start year: 2023
- Project end year: ongoing
- Project domain: Social protection
- Data source: Yemen Service Center Management Information System
- Data is publicly available: No
- Technology/platform: Anomaly detection capability integrated into an existing Management Information System
- Related SDGs: SDG 1 – No poverty, SDG 2 – Zero hunger
- Contact information: Sunita Grote (sgrote@unicef.org)

Project 11: Machine Translation for Emergencies

- Project Description: The Office of Innovation and EMOPS are prototyping AI-based machine translation tools in several countries, including the Democratic Republic of the Congo. The solution makes humanitarian knowledge and training materials available to local emergency responders and volunteers in their own language (including low-frequency languages), improving first-responders' capacity to achieve full operational readiness for emergencies.
- Department/Division: Office of Innovation, EMOPS
- Project Type/Output: Translation tool and translated texts
- Project status: Ongoing
- Project start year: 2023
- Project end year: ongoing
- Project domain: Emergency response
- Technology/platform: open-source machine translation models, large language models
- Links:
 - o <https://www.unicefventurefund.org/portfolio/leaving-no-local-emergency-responders-behind-eastern-drc-democratic-republic-congo>

- o <https://www.unicef.org/innovation/stories/innovating-fragile-and-conflict-affected-states>
- Related SDGs: 13 – Climate action, 16 – Peace, justice and strong institutions
- Contact information: Sunita Grote (sgrote@unicef.org)

Project 12: Integrating Speech Technology into the U Youth Application in Burkina Faso

- Project Description: UNESCO data from 2021 show a literacy rate of 65% among young people in Burkina Faso, placing it among the 10 countries with the worst literacy rates. These young people who are challenged with low literacy, many of whom only speak local languages, are in urgent need of equal access to information. Similarly, this population is currently cut out of key feedback and accountability mechanisms that allow them to participate in and report on programmes implemented by UNICEF and other actors. However, many of these youth have access to mobile phones and potentially smartphones. Therefore, Burkina Faso is upgrading the UYouth application to integrate AI-powered text to speech and translation tools to support low-resource languages including Mooré. The solution will make the platform more user-friendly, interactive, and inclusive, increasing engagement and expanding its capacity to amplify the voices of young people.
- Department/Division: Office of Innovation
- Project Type/Output: AI-based text to speech and translation functionality in a mobile application
- Project status: Ongoing
- Project start year: 2023
- Project end year: ongoing
- Project domain: Youth engagement and empowerment, Social inclusion
- Technology/platform: Speech-to-text, text-to-speech, machine translation, and NLP
- Related SDGs: 8 – Decent work and economic growth, 10 – Reduced inequalities
- Contact information: Sunita Grote (sgrote@unicef.org)
- Links:
 - o <https://www.unicefventurefund.org/portfolio/text-speech-uyouth-burkina-faso>
 - o <https://www.unicef.org/innovation/stories/innovating-fragile-and-conflict-affected-states>

Project 13: AI-Powered Accessible Digital Textbooks initiative

- Project Description: In most countries, learning materials rely primarily on the printed word, which is not accessible to everyone. Millions of children have little or no access to books in a language they can understand, limiting their basic human right to literacy and education. Children with disabilities remain one of the most marginalized and excluded groups and, for them, gaining access to accessible learning materials is a key to quality education. However, to date, producing these materials has proven costly. UNICEF has worked with governments on producing Accessible Digital Textbooks (ADTs) that enhance learning for all children. However, it currently takes 6 – 9 months to produce a single accessible textbook. Generative AI can significantly reduce the cost of production of accessible digital formats. Following Universal Design for Learning principles, accessible textbooks can be made available and affordable in days, not months, for students of all abilities. This project aims to explore the potential of generative AI to create interactive digital textbooks for a wide audience of learners (with an initial focus on Latin America and Eastern and Southern Africa, where ADTs are already in use), and to generate evidence on the use of AI for inclusive education.
- Department/Division: Office of Innovation, ICTD, Innocenti

- Project Type/Output: Accessible Digital Textbooks (screen reader navigation, easy-read, glossary, text-to-speech, image captioning, ELI5))
- Project status: Ongoing
- Project start year: 2023
- Project end year: ongoing
- Project domain: Education, disability-inclusive education
- Technology/platform: Generative AI
- Related SDGs: 3 - Good health and well-being, 4 - Quality education, 10 - Reduced inequalities
- Relevant links: <https://www.accessibletextbooksforall.org/>
- Contact information: Julie de Barbeyrac (jdebarbeyrac@unicef.org) and Frank Van Cappelle (fvancappelle@unicef.org)

Project 14: Reach the Unreached

- Project Description: "Reach the Unreached (RtU)" is UNICEF's investment in exploring the use of household survey data, enhanced and expanded through artificial intelligence and other data technologies, combined with high-resolution population estimates, and leveraged in geospatial assets, to complement administrative data in providing evidence to find and serve unreached children (zero-dose or under-immunized) with immunization and other child rights, starting with birth registration. Through a participatory approach, UNICEF supports interested countries in the transformation of survey data into high-resolution datasets of unreached children that can be used in GIS maps and dashboards to serve co-defined strategic use cases to accelerate the ability to find hard-to-reach communities, reducing inequities in access to basic child rights.
- Department/Division: UNICEF Regional Office for West and Central Africa (WCARO), UNICEF Frontier Data Network - DAPM, UNICEF Digital Health & Information Systems, UNICEF Cameroon, UNICEF Chad, UNICEF Cote d'Ivoire, UNICEF Guinea, UNICEF Mali
- Project Type/Output: High-Resolution Datasets of Population, Vaccination Coverage, and Zero-Dose Children
- Project status: Handed over to governments
- Project start year: 2022
- Project end year: 2025
- Project domain: Health & Immunization
- Technology/platform: open-source machine learning and probabilistic models, GIS platforms
- Related SDGs: 3 - Good Health and Well-being, 10 - Reduced Inequalities
- Contact information: Nicco Cirone (ncirone@unicef.org)

Project 15: Children Exposed to Conflict

- Project Description: The project estimates the number of children (aged 0-17 years) globally exposed to conflict, disaggregated by sex and age groups, using geospatial analytics. It specifically applies the Conflict Exposure methodology developed by ACLED and WorldPop to calculate the exposure area based on three distinct categories of conflict events: Political Violence, Organized Violence and Demonstrations. This approach, tailored specifically to UNICEF's mandate, uses detailed ACLED conflict events data overlaid with WorldPop's age-and-sex-disaggregated raster population data to precisely determine the extent of children potentially exposed to conflicts, on a yearly basis from 2018 to 2023.
- Department/Division: Frontier Data and Tech unit, DAPM division.

- Project Type/Output: Data Pipeline (Software), Data Dissemination (UNICEF Indicator Data Warehouse).
- Project Status: Ongoing
- Project Start Year: 2024
- Domain: Child Protection, Conflict Analysis.
- Data Source: conflict events ([ACLED](#)) and children population data ([WorldPop](#)).
- Data is publicly available: Yes
- Technology/Platform: Microsoft Azure Databricks Notebooks (Pyspark). The repository is maintained on a [private GitHub repository](#).
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions.
- Links: [UNICEF Indicator Data Warehouse](#) and [UNICEF GeoSight](#).
- Lessons Learned: Applying the ACLED Conflict Exposure methodology specifically to children fills a significant data gap for Child Protection advocacy. Leveraging efficient large data processing in cloud-based infrastructure (Databricks) enables scalable and reproducible analysis, critical for UNICEF’s role in advocacy, based on credible and standardized measures.
- Contact information: Yves Jaques (yjaques@unicef.org).

Project 16: Global Immunization Budget Database (GIBD)

- Project Description: GIBD addresses critical challenges in understanding and managing immunization budgets globally. The access to immunization budgets allocated by governments is not standardized across countries and regions, the budget lines are often contained in extensive documents that in some cases are not searchable (scanned images). The project leverages Azure Document Intelligence Services for OCR and table parsing to extract budget lines related to immunization, the values are automatically categorized in classes making the analysis easier. The project helps identify funding gaps and potential disruptions in immunization services. The project can be extended to other areas other than Immunization.
- Department/Division: Frontier Data Network - DAPM, PD Immunization
- Project Type/Output: Web-based application for visualization, processed documents stored in databases.
- Project Status: Ongoing
- Project Start Year: 2024
- Domain: Budget analysis. Immunization.
- Data Source: Publicly available budget documents.
- Data is publicly available: Yes
- Technology/Platform: Microsoft .NET Core/C#. Azure Document Intelligence Services.
- Related Sustainable Development Goals (SDGs): SDG 3: Good Health and Well-Being.
- Links:
- Lessons Learned: Even if budget documents are often publicly available, the effort needed to read them and extract useful information can be a major hurdle. Automating the process helps quickly extracting the useful values, moving the task from the high-effort space back to the manageable space.
- Contact information: Yves Jaques (yjaques@unicef.org).

Project 17: Immunization Stock Management Strengthening (iSMS)

- Project Description: Vaccination is the last step of a complex process: purchase order, production, shipment, delivery to countries, internal shipments, stockage... The lack of

real-time data on vaccine stock at vaccination point makes it hard to understand when to trigger a “stockout alarm”, delays can cause the non-availability of vaccines for long periods of time. The scope of the project is to build and train a machine learning model that, learning from the available data, can predict a potential vaccine stockout in the vaccine delivery centers, the model should be able to predict the specific antigen that will become unavailable with a reasonable lead time (about 3 months).

- Department/Division: Frontier Data Network - DAPM, PD Immunization.
- Project Type/Output: Web-based application for visualization, processed documents stored in databases, Machine learning model.
- Project Status: Ongoing
- Project Start Year: 2024
- Domain: Vaccine stockout prediction. Immunization.
- Data Source: Vaccine stock database available in UNICEF, could be expanded to ingest other data sources if they become available.
- Data is publicly available: No
- Technology/Platform: Python.
- Related Sustainable Development Goals (SDGs): SDG 3: Good Health and Well-Being.
- Links:
- Lessons Learned: New data can be discovered or become available at different points in time, the model may need several rounds of training to include the new features. The patterns can change during the years, the model needs to be updated to be able to learn new trends.
- Contact information: Yves Jaques (yjaques@unicef.org).

Project 18: Air Quality Monitoring for Children’s Health

- Project Description: The Lao People's Democratic Republic (PDR) is the second-most polluted country in Southeast Asia, with air pollution responsible for the death of 200 children under 15 and 9,000 adults every year. Primary interventions to safeguard children’s health, including school closures at times of peak pollution, rely on accurate, granular, real time air quality estimates. However, these estimates are largely unavailable outside of the capital Vientiane. This project set out to provide accurate and granular estimates of air quality for Lao PDR through the installation of 154 air quality sensors in schools across the country and the development of a machine learning model to infer air quality from geospatial and weather data. This modeling work builds upon and extends air quality modeling work previously done with partner Thinking Machines in Thailand.
- Department/Division: Office of Innovation
- Project Type/Output: Open source sensor data, air quality prediction model
- Project status: Ongoing
- Project start year: 2024
- Project end year: ongoing
- Project domain: Environment and climate
- Technology/platform: Airgradient sensors, OpenAQ network, computer vision
- Related SDGs: 3 – Good health and well being, 4 – Quality education, 13 – Climate action
- Contact information: Sunita Grote (sgrote@unicef.org)
- Relevant links:
 - o <https://www.unicef.org/laos/stories/real-time-air-monitoring-launches-schools>
 - o <https://github.com/thinkingmachines/unicef-ai4d-air-quality>

Project 19: AI in Gender-Based Violence in Emergency Programming - Perils and Potentials

- Department/Division UNICEF Programme Division – Child Protection, Gender-Based Violence in Emergencies (GBViE) Unit
- Project Type/Output: Research and Policy Paper – Conceptual framework and guidance for responsible AI use in GBV emergency settings
- Project Status: Completed (as of 2024)
- Project Start Year: 2024
- Project End Year: 2024
- Domain: Gender-Based Violence in Humanitarian Settings, Ethics of AI in Emergencies, Protection Sector
- Data Source: Literature review, expert consultations, field consultations with GBV practitioners, case analysis
- Link to data: Not applicable (narrative and conceptual research, no raw data shared)
- Data is publicly available: No
- Technology/Platform: Artificial Intelligence (AI) – Conceptual analysis of AI applications such as Natural Language Processing, machine learning for predictive analytics, chatbots, and decision-support tools in GBV emergencies
- Related Sustainable Development Goals (SDGs): SDG 5: Gender Equality, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals
- Partners: Internal UNICEF Divisions (including Gender and Innovation teams), Inter-Agency GBV Guidelines Reference Group, Independent researchers and experts in AI ethics, feminist tech, and humanitarian innovation
- Contact information: Caroline Masbounji, GBViE Team, Child Protection Section, Programme Division, UNICEF, Email: Cmasbounji@unicef.org

Project 20: Time to Act: Preparing Youth for Work in an AI-Powered World

- **Project Description:** *Time to Act: Preparing Youth for Work in an AI-Powered World* is a global knowledge report developed by Generation Unlimited (GenU) in collaboration with over 30 organizations. It is based on insights from a global survey of 53,878 young people across 184 countries and highlights the impact of generative AI on youth employment. The report outlines risks, opportunities, and urgent recommendations for action. It was officially launched at the Microsoft Office in New York during the General Assembly in 2024, spotlighting youth voices and multi-stakeholder collaboration in shaping AI policy and skilling.
- Department/Division: Generation Unlimited
- Project Type/Output: Knowledge product / Global policy report
- Project Status: Completed
- Project Start Year: 2023
- Project End Year: 2024
- Domain: Youth employment, education, digital skills, AI governance
- Data Source: Global youth survey (U-Report), partner consultations
- Link to data: <https://www.generationunlimited.org/GenAI-time-to-act>
- Data is publicly available: Yes
- Technology/Platform: Generative AI (focus area); U-Report platform (data collection)
- Related Sustainable Development Goals (SDGs):
- SDG 4: Quality Education, SDG 8: Decent Work and Economic Growth, SDG 9: Industry, Innovation and Infrastructure
- Partners: Microsoft, Accenture, UNICEF, U-Report, and 30+ contributing organization

- Contact Information: Thomas Michael Kaye tkaye@unicef.org // Pelayo Alvarez palvarez@unicef.org

Project 21: Gen AI for youth

- Project Description: GenAI for Youth is a youth-focused AI learning initiative developed through a partnership between Microsoft, GitHub, Goodwall, and Yoma, and supported by Generation Unlimited (GenU). The program features gamified challenges hosted on the Goodwall app that teach foundational AI skills through bite-sized learning, creative expression, and quizzes. Youth are encouraged to engage with AI through poems, skits, and other creative formats, building both technical and soft skills. This initiative aims to make AI accessible and transformative for young people across Africa, equipping them with digital skills for future employment and innovation.
- Department/Division: Generation Unlimited
- Project Type/Output: Youth engagement initiative / AI skilling challenge series
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: N/A (multi-phase)
- Domain: AI education, youth innovation, digital skills, workforce readiness
- Link to data: <https://www.goodwall.io/tags/GenAI>
- publicly available: Yes
- Technology/Platform: YOMA platform
- Related Sustainable Development Goals (SDGs): SDG 4, SDG 8, SDG 9, SDG 10
- Partners: Microsoft, GitHub, Goodwall, Yoma, Generation Unlimited
- Contact information: Wesley Furrow wfurrow@unicef.org

Project 22: Generative AI Learning Pathway

- Project Description: The Generative AI Learning Pathway is a multi-level, self-paced course designed to equip youth with foundational, practical, and ethical knowledge of Artificial Intelligence (AI) and Generative AI. Developed as a pro bono collaboration with Microsoft and Accenture, and incorporating content from Code.org, the course is structured into three levels—Foundation, Medium, and Master—and covers topics such as AI basics, responsible use, productivity with CoPilot, cultural perspectives, and chatbot applications. It was launched in late 2024 and is available through the global Passport to Earning (P2E) platform, as well as localized P2E country platforms.
- Department/Division: Generation Unlimited
- Project Type/Output: Digital learning pathway / AI skilling course
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: N/A
- Domain: AI literacy, digital skills, ethical technology use
- Link to data: <https://global.passport2earning.org/#/course/108/item/881>
- Data is publicly available: Yes
- Technology/Platform: P2E global learning platform (web/mobile); localized P2E country platforms
- Related Sustainable Development Goals (SDGs): SDG 4, SDG 8, SDG 9, SDG 10
- Partners: Microsoft, Accenture, Code.org, Generation Unlimited
- Contact Information: Thomas Michael Kaye tkaye@unicef.org // Pelayo Alvarez palvarez@unicef.org

Project 23: HOPE digital humanitarian cash assistance delivery solution

- **Project Description:** ICTD in collaboration with Social Protection delivers the digital systems for HOPE that provides people with cash in humanitarian crisis situations. Humanitarian cash transfers offer an opportunity to support families to meet their needs in a dignified, effective, and efficient manner. UNICEF continues expanding the use of humanitarian cash transfers, reaching more than 3 million children reached in 48 countries with \$657 million by end of 2024. The scaled use of cash transfers is supported by UNICEF's corporate digital solution, Humanitarian cash Operation and Programme Ecosystem (HOPE). This system safely processes the personal data of families receiving UNICEF's cash assistance, in line with quality standards, while ensuring a risk informed implementation of cash programs. The latest updates to HOPE include enhanced beneficiary deduplication to prevent errors and fraud by usage of AI for facial recognition and matching faces. With more fraud preventions features in development using AI to match and verify documents (passport/id, birth certificate).
- **Department/Division:** ICTD/Programmes Social Protection
- **Project Type/Output:** Systems
- **Project Status:** on-going
- **Project Start Year:** 2021
- **Project End Year:** 2025
- **Domain:** Social Protection / Humanitarian Cash
- **Data Source:** Technical country-based data.
- **Link to data:** <https://www.unicef.org/hope-hct/>
- **Data is publicly available:** No
- **Technology/Platform:** Python, Azure
- **Related Sustainable Development Goals (SDGs):** SDG 1 No Poverty, SDG 2 No Hunger, SDG 3 Good Health and Well Being, SDG 4 Quality Education
- **Partners:**
- **Contact information:** Talita Molenaar (tmolenaar@unicef.org), Nikola Trncic (ntrncic@unicef.org)

Project 24: Deployment of Bot Functionality (powered by Salesforce Einstein AI and WhatsApp) in Salesforce for Supporter Care

- **Project Description:** ICTD with collaboration with UNICEF Uruguay country office deployed AI BOT powered by Salesforce Einstein with WhatsApp as a channel to provide supporter care for UNICEF supporters in Uruguay. Since the rollout of the AI Bot on the Salesforce platform in June 2024, the solution has significantly enhanced donor servicing efficiency and responsiveness. Bot has successfully handled over 3500 customer requests. The deployment has led to enhanced operational efficiencies; including reducing average response time ensuring quicker resolutions and improved donor satisfaction, 24/7 service availability, enabling continuous supporter engagement without the limitations of human working hours. The BOT also reduced the workload on supporter care team, allowing teams to focus on high-value, complex interactions while routine queries are efficiently managed by the Bot. It also helped in enhancing CRM records and enabling better analytics for supporter insights. Overall, the Bot has proven to be effective in optimizing supporter care operations, contributing to both cost savings and improved service quality.
- **Department/Division:** ICTD/PFP
- **Project Type/Output:** Internal Operational Efficiency
- **Project Status:** on-going
- **Project Start Year:** 2024
- **Project End Year:** on-going

- Domain: Partnership and Resource Mobilization
- Data Source:
- Link to data:
- Data is publicly available: No
- Technology/Platform: CRM/Salesforce
- Related Sustainable Development Goals (SDGs): Goal 17
- Partners: Internal
- Contact information: Talita Molenaar (tmolenaar@unicef.org), Ranjan Baral (rbaral@unicef.org)

Project 25: UNICEF East Asia Pacific Regional Office Air Quality Monitoring

- Project Description: UNICEF has leveraged the use of Machine Learning and low cost air quality sensors to enable partners governments, Lao PDR, to take real time decisions based on real time data from every village in Lao PDR to protect children's health when air pollution becomes too high, this improving policy and action.
- Department/Division: UNICEF EAPRO Frontier Data Lab & UNICEF Lao PDR Country Office
- Project Type/Output: Data
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Ongoing
- Domain: Climate change /Education / Health
- Data Source:
- Link to data:
- Data is publicly available: [Protecting Children from Air Pollution: Open-Source Air Quality Machine Learning in SE Asia | UNICEF East Asia and Pacific](#)
- Technology/Platform: Machine Learning, Air Quality Sensors
- Related Sustainable Development Goals (SDGs): SDG 3 (Health), SDG 4 (Education), SDG 10 (Reduced Inequality); SDG 11 (Sustainable Cities and Communities); SDG 13 (Climate Action)
- Partners: UNICEF Lao PDR CO, Lao PDR Government, AirGradient - Funded through UNICEF Ool Partnership with Arm.
- Contact information: Jude Hanan, T4D Manager EAPRO, jhanan@unicef.org

Project 26: UNICEF EAPRO SitRep - Real Time Emergency Data

- Project Description: Provide real-time information in the first 72h of a disaster for decision making. Provides answers to questions such as: How many people are impacted? Who are they? What are the infrastructure? Where to set the operations? What is the response cost estimate? The solutions features: Affected geographical area; Affected population characteristics; Real time population variation; Real time connectivity changes; Health and education facilities
- Department/Division: UNICEF EAPRO Frontier Data Lab
- Project Type/Output: Data
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: Ongoing
- Domain:

- Data Source: Meta's Data for Good, Open Street Map, Worldpop, and Global Disasters Alert and Coordination Center (GDACS)
- Link to data:
- Data is publicly available: Yes (API)
- Technology/Platform: Machine Learning, AI
- Related Sustainable Development Goals (SDGs): 1, 2, 3, 4, 6, 10, 13, 16
- Partners: Meta, OSI, GDACS
- Contact information: Jude Hanan, T4D Manager EAPRO, jhanan@unicef.org

Project 27: UNICEF EAPRO OpenConnect - Realtime Internet Connectivity Data

- Project Description: Understanding the digital divide for health and education - The system looks at questions such as: Where to focus digital inclusion efforts? Where can we already run digital education/health programmes? Where are connectivity investments most needed?. The system features include: Mapping of internet connectivity in schools and health facilities; Real time coverage estimates, 6 months speed averages.
- Department/Division: UNICEF EAPRO Frontier Data Lab
- Project Type/Output: Data
- Project Status: Testing
- Project Start Year: 2023
- Project End Year: Ongoing
- Domain:
- Data Source: Powered by Facebook and user speed tests, OOKLA
- Link to data:
- Data is publicly available: Yes (API)
- Technology/Platform: Machine Learning, AI
- Related Sustainable Development Goals (SDGs): 3, 4
- Partners:
- Contact information: Jude Hanan, T4D Manager EAPRO, jhanan@unicef.org

Project 28: UNICEF EAPRO - High Resolution population estimates

- Project Description: High-resolution population baselines for decision making. The solution answers the questions: What is the population of a specific area? How many children/women of child-bearing age/pregnant women? It features: Cross sectoral population baseline; Combined high resolution satellite imagery and traditional data; Split by age groups and gender; Small area estimates - improved granularity; Improve quality, compared to existing census
- Department/Division: UNICEF EAPRO Frontier Data Lab
- Project Type/Output: Data
- Project Status: In production, Tested in Cambodia
- Project Start Year: 2022
- Project End Year: Ongoing
- Domain:
- Data Source: Big Data (geospatial data); Data science (Machine learning and statistics)
- Link to data:
- Data is publicly available: Yes (API)
- Technology/Platform: Machine Learning
- Related Sustainable Development Goals (SDGs):

- Partners:
- Contact information: Jude Hanan, T4D Manager EAPRO, jhanan@unicef.org

Project 29: Development of a geospatial dashboard and national data system to map access and quality of health services across Indonesia.

- Project Description: The platform integrates spatial and non-spatial datasets to visualize disparities in health service access and inform health planning and resource allocation. A machine learning model is used to estimate travel times to the nearest health facility, incorporating variables such as road network conditions, topography, transportation modes (land and water), and geographic barriers.

This model enables more accurate estimation of real-world travel times compared to conventional static routing, especially in remote, archipelagic, and border areas. The system provides comprehensive data on 10,418 primary health care facilities and 3,095 hospitals, and analyzes population accessibility within defined travel time intervals:

- 0-15 minutes
- 15-30 minutes
- 30-45 minutes
- 45-60 minutes
- 60-120 minutes
- Over 120 minutes

This analysis helps identify regions with limited accessibility and supports evidence-based prioritization of infrastructure development. The geospatial dashboard combines mapping, graphs, and tabular views to make insights actionable for policymakers at national and sub-national levels. The initiative supports Indonesia's strategic health planning in alignment with the RPJMN and SDG targets.

- Department/Division: UNICEF Indonesia Country Office / T4D and Digital Innovation - Social Policy
- Project Type/Output: Geospatial dashboard, machine learning travel-time model, integrated spatial and non-spatial health access database, national access analysis report
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Domain: Health, Public Policy, Geospatial Analytics
- Data Source: Secondary data from the Ministry of Health, OpenStreetMap, Riskesdas, PODES, and other national datasets
- Link to data:
- Data is publicly available: Partially in Ministry of Planning website as a dashboard
- Technology/Platform: ArcGIS, web-based dashboard, machine learning modeling tools (for spatial travel time estimation)
- Related Sustainable Development Goals (SDGs):
- SDG 3: Good Health and Well-being
- SDG 10: Reduced Inequalities
- SDG 9: Industry, Innovation and Infrastructure
- Partners: Ministry of Planning, Ministry of Health
- Contact information: Risdianto Irawan (irawan@unicef.org), Haditya Mukri (hmukri@unicef.org), I Made Suwancita (imsuwancita@unicef.org)

Project 30: The UNICEF Data Chatbot (Beta)

- **Project Description:** The Data Communications Team in DAPM released a chatbot for the data.unicef.org website in August 2024. Developed using the ChatGPT Assistants API, Python, and Voiceflow, this chatbot aims to enhance the accessibility of D&A's publications for website users. Key features include summarizing reports, enabling users to ask questions about specific publications, and interacting with content in multiple languages. The chatbot is designed to provide a more user-friendly and interactive experience for accessing UNICEF's data and publications.

At this stage, there are no plans for a broader rollout of the chatbot. This beta release is a test-and-learn exercise, aimed at determining the usefulness of this functionality and assessing whether the technology is mature enough to support this use case.

- **Department/Division:** Data Communication and Advocacy, DAPM
- **Project Type/Output:** AI Chatbot, public facing
- **Project Status:** Live beta
- **Project Start Year:** 2024
- **Project End Year:** 2025
- **Domain:** SDG
- **Data Source:** Progress on Children's Well-being: Centring child rights in the 2030 Agenda report
- **Link to data:** [Full Report](#)
- **Data is publicly available:** Yes
- **Technology/Platform:** ChatGPT Assistants API / Python / Voieflow
- **Related Sustainable Development Goals (SDGs):** All
- **Partners:** None
- **Contact information:** Karoline Hassfurter (khassfurter@unicef.org) and Ben Johnson (bjohnson@unicef.org)

Project 31: Guidance/ Discussion paper exploring ethical issues of using AI in evidence activities (Research, Evaluation, Surveys and Polls etc)

- **Project Description:** The Global Office of Research and Foresight is working with a consultant and internal expert panel to explore real-world ethical challenges arising from proposed use cases of AI in the evidence generation space and good practice examples. The project draws on existing literature (formal and informal), case studies and key informant interviews to understand existing and emerging challenges, review existing guidance, and unpack what ethical practice (including transparency and accountability) look like at a practical level, to provide a practical tool for practitioners to assess and manage risks of using AI tools in their evidence activities.
- **Department/Division:** Global office of research and foresight
- **Project Type/Output:** Discussion paper and field guide (summary)
- **Project status:** Ongoing
- **Project start year:** 2024
- **Project end year:** ongoing (due for completion mid-year 2025)
- **Project domain:** Evidence generation/ Ethics
- **Technology/platform:** NA
- **Related SDGs:** All (evidence generation to support SDG progress)
- **Contact information:** Karen Carter – Snr Advisor, Ethics in Evidence Generation (k.carter@unicef.org)

2. Related Sustainable Development Goals

SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions

3. Relevant Links

<https://www.unicefinnovationfund.org>

<https://www.unicef.org/innovation/venturefund>

<https://data.unicef.org/resources/frontier-data-network/>

<https://www.youtube.com/watch?v=TtoubcXs27s> :

Contact information: Sunita Grote (sgrote@unicef.org), Yves Jaques (yjaques@unicef.org)

United Nations Interregional Crime and Justice Research Institute



1. Description of Activities on AI

Project 1: Operation of the Centre for Artificial Intelligence and Robotics

- Project Description: The Centre for Artificial Intelligence and Robotics is a specialized centre of the United Nations Interregional Crime and Justice Research Institute (UNICRI). It was established in 2017 and is located in The Hague, the Netherlands.
- The focus of the Centre is to advance understanding of the challenges and opportunities brought by artificial intelligence (AI) and other new and emerging technologies from the perspective of justice, crime and other security threats. It seeks to support Member States both through practically-oriented policy guidance, research and reporting, as well as capacity building activities to leverage the potential of these technologies in a responsible manner.
- Department/Division: Centre for Artificial Intelligence and Robotics
- Project Type/Output: Through its specialized Centre for AI and Robotics in The Hague, UNICRI advances understanding on the risks and benefits of AI, robotics and related technologies vis-à-vis crime, terrorism and other threats to security and seeks to support Member States to leverage the potential of these technologies in a responsible manner.
- Project Status: Ongoing
- Project Start Year: 2017
- Project End Year: -
- Project Domain: Crime Prevention, Justice
- Project Updates:
 - Relying on its convening power as a UN entity, UNICRI organized several events, including information-sharing meetings, technical workshops, training courses, multi-stakeholder policy discussions, and high-level awareness-raising and visibility events.
 - UNICRI has laid the groundwork to continue advancing the Centre's mission, exploring new opportunities and emerging research areas related to the challenges and opportunities brought by AI and other new and emerging technologies from the perspective of justice, crime and other security threats.
- Related Sustainable Development Goals (SDGs): SDG 16 -Peace, Justice, and Strong Institutions
- Relevant Links and Multimedia: https://unicri.org/in_focus/on/unicri_centre_artificial_robotics
- Partnership(s)/Collaborator(s): Multiple stakeholders in the fields of artificial intelligence and criminal justice, including Member States, UN Partners such as ITU, UNESCO, UNPOL, UNODC, UNICEF and OICT; and other International Organizations such as INTERPOL and the European Union.
- Lesson Learned:

- Challenges:
 - Lack of a global governance framework on AI and a diverse and rapidly changing regulatory landscape regarding AI and law enforcement's use of AI.
 - Constant developments within the field of AI and digital transformation in law enforcement and beyond.
 - Distinct levels of engagement from different stakeholders, with varied levels of interest and availability to invest time and resources in the topic, resulting in difficulty with ensuring a balanced representation across stakeholder groups, demographics and regions across the globe.
 - Stakeholders in the field have various backgrounds and often different priorities, objectives and motivations, making it challenging to balance their diverse perspectives and foster collaborations.
 - Lessons learned:
 - Engagement and strong collaboration with diverse stakeholders (law enforcement, criminal justice practitioners, technology providers, human rights experts, etc.) are essential for successfully pursuing the Centre's mission.
 - The project implementation requires flexibility, constant updating of knowledge and review of practices to keep pace with the ongoing and rapid changes in the realm of emerging technologies.
 - Translating technical concepts into language accessible to non-technical stakeholders such as policy makers and the general public is crucial for effective communication and knowledge-building.
- Future work:
 - Furthering the Centre's mission, further advancing the understanding of the challenges and opportunities brought by AI and related technologies from the perspective of justice, crime and other security threats.
 - Building an understanding of citizens' perceptions of law enforcement's use of AI and how it relates to trust in law enforcement.
 - Conducting research on current practices and proposing strategies for enhancing transparency around law enforcement's use of AI.
 - Developing recommendations for communication strategies to foster public trust in law enforcement's responsible use of AI.
 - Exploring new areas related to the core mission of the Centre, focusing on the development of educational resources on AI to empower children, parents, and caregivers, as well as on building knowledge on AI and law enforcement of the broader criminal justice community, targeting practitioners such as prosecutors.
- Contact Information: Irakli Beridze (irakli.beridze@un.org); Odhran McCarthy (odhran.mccarthy@un.org)

Project 2: Responsible Artificial Intelligence Innovation in Law Enforcement

- Project Description: Fostering responsible AI innovation within the law enforcement community is one of the priority areas of the UNICRI's Centre for Artificial Intelligence and Robotics. In this context, UNICRI has established a partnership with INTERPOL to create a unique global forum to discuss the advancements and impact of using AI for law enforcement. The purpose of this project is to demystify the world of AI, not only for law enforcement officers but

also for policymakers, practitioners, industry partners, academic researchers, civil society and the general public.

Within this project, UNICRI and INTERPOL organize annual global meetings on AI for law enforcement, conducting in-depth interviews with several law enforcement experts and other partners and hosting virtual meetings with a multi-disciplinary group of experts to identify AI use cases for law enforcement and discuss issues related to the dichotomy between the potential opportunities and challenges presented by AI, coupled with the lack of guidance tailored to the relative novel use of AI in law enforcement.

Following the release of the [“Toolkit for Responsible Artificial Intelligence Innovation in Law Enforcement”](#), UNICRI set out to further advance the responsible use of AI in law enforcement by supporting agencies to operationalizing the guidance contained in the AI Toolkit and ensure that the AI Toolkit remains a contemporary and relevant instrument for law enforcement. This led to the launch of the next phase of work entitled “AI-POL: Advancing Innovation, Governance and Responsible AI in Law Enforcement” funded by the European Union and implemented in partnership with INTERPOL, which target efforts at the executive levels of law enforcement agencies on the issue of responsible AI, as well as the development of best practices policy approaches for selected use-cases, the convening of thematic working group meetings, and the organization of a public engagement campaign.

- Department/Division: Centre for Artificial Intelligence and Robotics
- Project Type/Output: Multi-stakeholder platform bringing together law enforcement, industry and academia from all over the world to explore the positive potential of AI in law enforcement in a trustworthy, lawful and responsible manner, as well as an actionable Toolkit consisting of resources that include principles, guidance documents and actionable recommendations to support law enforcement to make more informed decisions and prevent possible risks related to the implementation of AI in their work.
- Project Status: Ongoing
- Project Start Year: 2018
- Project End Year: 2027
- Project Domain: Justice
- Project Updates:
 - The [“Toolkit for Responsible Artificial Intelligence Innovation in Law Enforcement”](#) – a practical guide for law enforcement agencies on developing and deploying AI responsibly, while respecting human rights and ethics principles – was released in March 2023 at INTERPOL’s Police Science Congress in Singapore by UNICRI and INTERPOL
 - The Fourth Global Meeting on AI for Law Enforcement was organized in Singapore in February 2024, bringing together the international law enforcement community to network, connect, share and learn around responsible AI Innovation in law enforcement.
- Related Sustainable Development Goals (SDGs): SDG 16 –Peace, Justice, and Strong Institutions
- Relevant Links and Multimedia: www.ai-lawenforcement.org <https://unicri.org/topics/Toolkit-Responsible-AI-for-Law-Enforcement-INTERPOL-UNICRI>
- Partnership(s)/Collaborator(s):
 - UN Partners: UNOCT, UNODC,
 - Other International Organizations: INTERPOL, European Commission (European Union)

- Lesson Learned:
- Challenges:
 - Ensuring human rights compliant AI and building public trust in AI for law enforcement.
 - Lack of a global governance framework and the prevalence of policies and regulatory frameworks centred in the global north.
 - Differences in rules and regulations on AI and the law enforcement use of AI.
 - Evolving development of AI and digital transformation in law enforcement.
 - Heterogenous level of technical capabilities and the level of engagement with AI by law enforcement agencies around the world.
- Lessons learned:
 - It is essential to work with law enforcement directly to identify their needs and help them fill their gaps in a practical and operationally oriented manner.
 - Engagement of senior leadership in agencies is required to ensure agencies can build upon the guidance in the AI Toolkit and integrate AI responsibly.
 - Additional targeted guidance and support is required to ensure agencies can fully understand the translation of the guidance contained in the AI Toolkit into operational settings.
- Future work:
 - Two in-person workshops with the representatives of the executive leadership of the participating agencies are organized.
 - A training course for executive leadership on foundational understanding of responsible AI innovation is developed and delivered.
 - Organizational readiness assessments are conducted by law enforcement agencies from five countries.
 - At least three national workshops on AI and counter-terrorism are held.
 - Short executive briefs on responsible AI innovation for different groups of law enforcement stakeholders are developed.
 - Development of the good practice framework for a specific AI in law enforcement use case commences.
 - Development of a responsible AI for counter-terrorism guidebook commences.
- Contact Information: Irakli Beridze (irakli.beridze@un.org); Odhran McCarthy (odhran.mccarthy@un.org)

Project 3: Building Capacities of Law Enforcement Worldwide to Leverage the Positive Potential of Artificial Intelligence to Combat Child Sexual Abuse and Exploitation

- Project Description: In 2020, UNICRI, through its Centre for AI and Robotics, together with the Ministry of Interior of the United Arab Emirates launched the AI for Safer Children initiative. This project aims to explore the positive potential of AI to support law enforcement agencies to prevent, detect and prosecute child sexual exploitation and abuse.

The issue of child sexual exploitation and abuse has been growing exponentially over the last decades and has experienced a further increase throughout the COVID-19 pandemic. Developing technologies that allow for increasingly vast amounts of files to be stored and shared, as well as AI image generation which allows more child sexual abuse material to be created, both exacerbate the issue further. Law enforcement agencies face significant challenges in combating this crime, including a high turnover of investigators - largely due to the psychological burden of reviewing the abuse material, the difficulties in identifying both perpetrators and victims in huge amounts of data, subsequent high backlogs, the

challenges posed by the global nature of the Internet and new technologies such as encryption.

While many existing AI tools can and are already contributing to solving these challenges, law enforcement agencies are not yet widely using them. Many are not aware of the potential of the AI tools, or are sceptical about the technology's benefits. Additionally, selecting and implementing AI tools is a complex process for which law enforcement agencies may lack the necessary knowledge and resources.

The project aims to tackle this issue through the continued development of its AI for Safer Children Global Hub – a unique, online platform where law enforcement officers can access a repository of information on 80 AI tools that are available to combat child sexual exploitation and abuse. The Global Hub also allows law enforcement officers to communicate with each other and learn how to implement and use AI tools responsibly within their workflow.

To further distribute the Global Hub's information and resources, the AI for Safer Children initiative is also offering free online and in-person training to advance the capacities of law enforcement agencies across the globe to combat child sexual exploitation and abuse. These training sessions are tailored to the specific needs and contexts of participating law enforcement agencies and cover a broad range of AI tools and techniques across an investigative workflow.

- Department/Division: Centre for Artificial Intelligence and Robotics
- Project Type/Output: Online platform, trainings
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2027
- Project Domain: Justice
- Data Source: AI tools that can be leveraged by law enforcement agencies in preventing, detecting, and prosecuting child sexual exploitation and abuse.
- Data publicly available: No
- Technology/Platform: Microsoft SharePoint
- Project Updates:
 - The third phase of AI for Safer Children was launched in 2024, aimed at further refining and improving the initiative through targeted engagements with law enforcement and industry stakeholders and bring the initiative and the guidance and support it can provide closer to law enforcement agencies through community-building events and activities. The ongoing maintenance and expansion of the Global Hub and the network of users in law enforcement agencies will additionally remain an ongoing area of focus throughout 2025.
 - Since its launch in 2020, UNICRI has significantly expanded its Global Hub. Efforts to grow the Global Hub content and user base were enhanced throughout the second and now third phase of implementation, with the number of tools on the Global Hub growing to more than 100 tools from 40 different technology providers. The number of users also grew to more than 1,000 law enforcement investigators from 255 different law enforcement agencies across 120 Member States.
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, And Strong Institutions
- Partnership(s)/Collaborator(s):
 - UN Partners: UNICEF, OICT, UNPOL, UNODC
 - Government: Ministry of Interior of the UAE
 - Private Sector: Griffeye, SafeToNet, Kaseware, Semantics21, Web-IQ, Cyacomb Examinor, Qumodo, ZiuZ Visual Intelligence, Paliscope, CameraForensics Ltd, FriendMTS, Trilateral Research, SUMURI, 1st1 Technologies, Netspark, GetData

Forensics, Nuix, Dark River Systems, Magnetic Forensics, Breakpoint Forensics, Wiretap, Securium, Epieos, SAS Software, Amped Software, iCOP, Global Emancipation Network, Palantir, OSForensics and PassMark Software, Privately SA, BlueBear.

- Civil Society: Red Papaz, ECPAT, International Justice Mission, National Center for Missing & Exploited Children, Thorn, Childhood Foundation, Bracket Foundation, RATI Foundation, Prerana, Canadian Center for Child Protection, wePROTECT Alliance, Gucci Foundation, Project Vic, Child Rescue Coalition.
- Academia: University of Massachusetts Amherst.
- Other International Organizations: INTERPOL, European Commission (European Union), Europol, Virtual Global Taskforce, Fund to End Violence Against Children.
- Relevant Links and Multimedia:
 - <https://unicri.org/topics/AI-for-Safer-Children>
 - X: @AISaferChildren
 - <https://youtu.be/aYJJ2m2Y29g>
 - https://www.youtube.com/watch?v=qurq_MAcUns
 - <https://www.youtube.com/watch?v=sJShhYiTjoM&t=20s>
- Lessons Learned:
- Challenges:
 - Heterogenous level of technical capabilities, accessibility, and engagement with AI by law enforcement agencies around the world.
 - Reaching a truly global and diverse range of law enforcement agencies, both for members of the Global Hub and to host trainings.
 - Differences in rules and regulations in different countries and regions not only on AI and the law enforcement use of AI, but also on online child sexual exploitation and abuse.
 - Lack of a global governance framework and the prevalence of policies and regulatory frameworks centred in the global north.
 - Ensuring ethical and human rights compliant AI and building public trust in the use of AI by law enforcement.
- Lessons learned:
 - The project should target law enforcement agencies in all Member States, especially low- and middle-income countries and law enforcement agencies in the global south.
 - The project should seek to build a community around the responsible use of AI by law enforcement, with a strong emphasis on a human rights-centred approach.
 - The project should take a bottom-up approach, working with law enforcement agencies directly to identify their needs and help them fill their gaps.
 - The project should include appropriate measures and processes to ensure that it is developed and implemented in accordance with ethical principles to warrant that any possible issues are addressed early on.
 - The project should seek to pursue specialized training for law enforcement to increase capacity building and engagement of AI to combat child sexual abuse and exploitation around the world.
 - The project should seek to increase accessibility of AI tools around the world.
- Future work:
 - Maintain, optimize, and grow the Global Hub, including desk-based research and analysis on the continually developing field of AI tools and techniques for the purposes of inclusion in the Global Hub and coordination with technology developers; creation

and curation of content for the Learning Centre; networking with law enforcement agencies for onboarding purposes; promotion and visibility activities of the Global Hub in general.

- Continue to provide and adapt trainings to build capacities and implement knowledge imparted through the Global Hub by promoting such training programmes and delivering the training courses to law enforcement agencies from all over the world.
- Build on this connection with law enforcement users worldwide through trainings to gather more information about their priorities and limitations, as well as feedback about AI for Safer Children services and impact, through regular meetings, interviews, and surveys both before and after trainings. This feedback will guide research and development of the Global Hub and training materials in future.
- Contact Information: Irakli Beridze (irakli.beridze@un.org), Odhran McCarthy (odhran.mccarthy@un.org)

Project 4: The Responsible Use of Generative Artificial Intelligence for Children

- Project Description: Implemented by UNICRI with support from the Walt Disney Company, this project aims to enhance AI literacy and digital resilience among young people and their caregivers. It focuses on equipping children aged 13–17 and their parents with the skills and tools to safely and consciously navigate the opportunities and risks associated with generative AI technologies. Key 2025 activities include the production of a short educational video for adolescents (with captions in all six official UN languages) and a factsheet for parents and caregivers offering guidance on how to support children's responsible use of generative AI. The initiative contributes to UNICRI's broader efforts to promote the responsible use of new technologies in crime prevention and digital safety, particularly in the context of vulnerable groups such as youth
- Project updates:
 - A survey to collect parents' perceptions of their teenagers relation with generative AI was distributed worldwide receiving 160 replies from 19 countries in 5 continents.
 - Interviews were performed to experts in the field including UNICEF, OpenAI, Lego, Harvard University, Bodhini and Bracket Foundation to further inform the development of recommendations for parents and caregivers.
- Project Type/Output: Awareness-raising/knowledge development
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Justice
- Related Sustainable Development Goals (SDGs): SDG 16 –Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s) :
 - UN Partners: N/A
 - Government: N/A
- Relevant Links and Multimedia:
 - N/A
- Lesson Learned:
- Challenges:
 - N/A – Newly launched initiative, currently ongoing
- Lessons learned:

- N/A – Newly launched initiative, currently ongoing
- Future work:
 - One short video for children on how to responsibly interact with generative AI is produced. The video will include a brief explanation of the technology, and its benefits and risks. Captions will be made available in all six official UN languages.
 - A factsheet for parents and caregivers including the main challenges of generative AI and how to address them in relation to their children is produced. The factsheet will be user-friendly and accessible and will also be translated into all six official UN languages
- Contact Information: Irakli Beridze (irakli.beridze@un.org), Odhran McCarthy (odhran.mccarthy@un.org)

Project 5: AI4Citizens – Legal, Ethical, and Societal Considerations of Implementing AI in Security Settings

- Project Description: Part of the wider AI4Citizens consortium led by BI Norwegian Business School, UNICRI's role in this project focuses on the human rights, legal, and societal implications of AI-powered surveillance technologies. The project explores the application of anonymization and transparency techniques to enhance public trust and responsible AI use in law enforcement. Planned 2025 activities include expert interviews, analysis of anonymized crowd monitoring systems, and consultations with stakeholders including law enforcement, civil society, and technical partners. Outputs will include recommendations on ethical implementation, communication strategies, and public engagement related to AI in security. The project will culminate in a public-facing open access report to support the responsible deployment of AI surveillance systems by law enforcement actors
- Project updates:
 - Conducted analysis on the use of anonymized crowd monitoring AI systems for public safety from a human rights and responsible AI innovation perspective and organized discussions around this with the donor and other partners of the broader AI4Citizens consortium.
 - Conducted several interviews with multidisciplinary experts focused on effective strategies for law enforcement agencies and related entities to communicate and engage with the public regarding the responsible use of AI systems.
 - Conducted analysis to determine the best methodology for qualitative data analysis, interview coding, and drawing up research conclusions.
 - Initiated a literature review on effective strategies for communication and public engagement regarding the responsible use of AI systems.
 - Drafted the initial outline of the recommendations.
- Project Type/Output: Awareness-raising/knowledge development
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2026
- Project Domain: Justice
- Related Sustainable Development Goals (SDGs): SDG 16 –Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s) :
 - UN Partners: N/A
 - Government: Norway

- Relevant Links and Multimedia:
 - N/A
- Lesson Learned:
- Challenges:
 - N/A – Newly launched initiative, currently ongoing
- Lessons learned:
 - N/A – Newly launched initiative, currently ongoing
- Future work:
 - The following main activities are planned for as next steps:
 - Supporting the research on the ethical, legal and societal considerations related to the law enforcement use of technological solutions such as those researched within the AI4Citizens project.
 - Consulting with relevant stakeholders, including the AI4citizens consortium participants, law enforcement representatives, policymakers, civil society organizations and community leaders.
 - Developing recommendations on relations and communication regarding the law enforcement use of AI, in accordance with responsible AI innovation practices.
- Contact Information: Irakli Beridze (irakli.beridze@un.org), Odhran McCarthy (odhran.mccarthy@un.org)

2. Related Sustainable Development Goals

SDG 16

3. Relevant Links

<http://www.unicri.org/>

Contact Information

Irakli Beridze (irakli.beridze@un.org), Odhran Mc Carthy (odhran.mccarthy@un.org)

United Nations Institute for Disarmament Research



1. Description of Activities on AI

Project: Security and Technology - AI and Autonomy Workstream

- Project Description: The UNIDIR Security and Technology Programme's (SecTec) AI and Autonomy workstream conducts original research and convenes international events to promote a fact-based, technologically sound dialogue between policymakers, the tech community, the private sector and other stakeholders working on AI technology and its implications for peace and security. The programme supports the Convention on Certain Conventional Weapons Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (GGE on LAWS) in its efforts to advance multilateral debate on concepts such as human control and responsibility, the human-machine interface, and the predictability and reliability of AI-enabled conventional weapon systems (among other considerations). This programme also seeks to address considerations related to broader applications of AI in military systems—particularly in decision support tools, cyber operations, and command and control— which themselves raise novel concerns about understandability, reliability and predictability; the potential for unintended biases, interactions or outcomes; and susceptibility of these systems to manipulation. The implications of AI for digital, physical, and national and international security require a fundamental reassessment and, in some instances, re-equipping of the multilateral arms control toolbox.

UNIDIR's AI and autonomy workstream seeks to a) support understanding of the implications of military uses of AI in and beyond weapon systems and b) explore the options available for AI governance and arms control. In addition to continuing its work on autonomy in weapon and military systems, UNIDIR's SecTec programme has further expanded its research agenda to explore the broader international security implications of advancements in AI, convergence between AI and other domains such as gender and human rights, and new and emerging technologies like cybersecurity and quantum, strategic foresight, as well as issues of AI governance, including multi-stakeholder dialogues.

- Project Type/Output: Framework/Strategy/Policy, Research (Fully fledged Development)
- Project Status: Ongoing
- Project Domain: Peace and Security, Lethal Autonomous Weapons Systems, Military applications of AI
- Data Source: Research, Events
- Project Updates: In previous submissions, UNIDIR outlined that its future work will encompass research studies and events at the regional and international level on the science, significance, and solutions related to artificial intelligence and the weaponization of increasingly autonomous technologies. This research agenda and program of convenings form a fundamental part of UNIDIR's efforts in support of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapon Systems, as well as other stakeholder communities. As part of this research agenda, UNIDIR completed the following activities in 2024: the Programme completed a project on confidence-building measures for AI, and published the project's [final](#)

[report](#). . Furthermore, SecTec published several research reports, including on formulating Draft Guidelines for the Development of a National Strategy on AI in Security and Defence, launched during the General Assembly in October 2024; a policy brief capturing [multistakeholder perspectives on priority areas for the governance of AI in the military domain](#), launched at the second edition of the Responsible AI in the Military Domain (REAIM) Summit in Seoul in September 2024; a report that summarizes [regional perspectives on responsible AI in the military domain](#) presenting both areas of policy convergence and divergences – also launched at the REAIM Summit in September 2024; and a primer on [large language models](#) and their implications for international security. . As part of its cross-programme initiatives, it also released a factsheet on gender and military applications of AI such as LAWS which was launched at a side event to the GGE on LAWS in August 2024, and a report on the [AI-cybersecurity nexus](#).

In late 2024, the Programme began work on a new yearly flagship event on AI, which had its successful launch in early 2025. Further, in 2024, in collaboration with UNIDIR's Gender programme, SecTec hosted the first edition of the Women in AI Fellowship, a capacity-building programme for women diplomats to train them on military applications of AI, including AI governance. The Fellowship has now become an annual convening due to the burgeoning interest in capacity-building around AI within the context of international security. The Programme's ongoing research projects focus on the following key themes: proliferation risks and governance of AI, the role of AI in disinformation, lethal autonomous weapons systems and international humanitarian law, multistakeholder engagement on AI in the military and wider security domains, supporting inter-regional and cross-regional dialogue on responsible AI in the military domain, consolidating the guidelines for the development of national strategies on AI in defence and security, as well as end-of-lifecycle and obsolescence management of AI in the military domain. In addition, the Programme continues to develop the AI Policy Portal (AIPP - <https://aipolicyportal.org/>) which aims at gathering available information at the national, regional and international level on policies, processes and structures that are relevant to the development and use of AI for military or security purposes.

- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): Technology and academic research community, arms control practitioners and other experts in the area of technology governance and regulation, industry.
- Links and Multimedia
 - <https://unidir.org/programmes/security-and-technology>
- Lesson Learned:
 - Challenges: Insufficient trust at the multilateral, international and regional levels, uncertainties regarding current and possible future applications of military AI, low technological literacy of many policy makers and a reluctance to adopt multistakeholder approaches (particularly in cooperation with the private sector and technical community) to address international security challenges, low policy and governance literacy of many developers and industries to the implications AI may pose to international peace and security, exploring the governance of applications of AI that do not fit within the mandate of existing multilateral arms control processes.
 - Opportunities: demand is high for UNIDIR primers, briefings, capacity-building and multistakeholder convenings such as the Global Conference on AI, Security and Ethics (AISE), a new flagship event focused on AI. Through these outputs we seek to create spaces to build knowledge, raise awareness among policy makers and convene multi-stakeholder discussions on new technology issues, as mandated by the Secretary-General in his Agenda for Disarmament.
 - Lessons learned: – Need and demand for focused, fact-based and impartial research on AI-related topics, clarification of the scope and exact meaning of broadly used

terms or concepts, as well as description of AI technologies and their dual-use capabilities I. The multi-stakeholder approach continues to be valuable for finding common ground and building constructive approaches among stakeholders holding divergent or competing points of view. Neutral expert analysis is very much welcomed by stakeholders and policy makers.

- Contact Information: Dr Giacomo Persi Paoli (giacomo.persipaoli@un.org)"

2. Related Sustainable Development Goals

SDG 16

3. Relevant Links

<https://unidir.org/>

Contact Information

Ioana Puscas (ioana.puscas@un.org), Yasmin Afina (yasmin.afina@un.org), Shimona Mohan (shimona.mohan@un.org), Gosia Loj (malgorzata.loj@un.org) and Giacomo Persi Paoli (giacomo.persipaoli@un.org)

United Nations Industrial Development Organization



1. Description of Activities on AI

Project 1: Fostering Slovenian – Cuban innovation cluster for biopharma, medical and nanotechnologies sectors 2020 – 2023

- **Project Description:** The project intends to develop a Slovenian – Cuban innovation cluster model for biopharma, medical and nanotechnologies sectors along the period 2020 – 2021. The project can be considered a pilot model for interregional cooperation, facilitating knowledge sharing and technology transfer from and to participant countries, and could be replicated or extended to other countries in Latin American and Caribbean region, and in Southeastern Europe/The Balkans region as well. More specifically the project seeks:
 - to support competent authorities in the upgrading of legal / regulatory framework for development of the bio-pharma cluster;
 - improving the conditions for larger business interventions (technology transfer, joint design and production);
 - increase the competitiveness in the field of bio-pharma industry of participating countries;
 - promote the development of innovative products, technologies and processes contributing to improve the human health and quality of life.

UNIDO launched the e-training course “Application of Advanced Technologies and New Business Models in the Biopharma and Medical Sectors” in May 2023. This training course is intended to provide a solid foundation on the biopharma and medical industries within the context of the Fourth Industrial Revolution (4IR). The online training comprises four modules and intends to highlight the 4IR implications for developing countries, particularly least developed countries, outline related challenges, and elaborate on how to capitalize on the potential that 4IR technologies present in these industries, particularly Artificial Intelligence (AI).

- **Department/Division:** Directorate of Technical Cooperation and Sustainable Industrial Development/Division of SME Competitiveness, Quality and Job Creation/SME Development and Job Creation Unit
- **Project Type/Output:** E-training
- **Project Status:** completed
- **Project Start Year:** 2020
- **End Year:** 2023
- **Project Domain:** biopharma, medical and nanotechnologies sectors
- **Related Sustainable Development Goals (SDGs):** SDG 3 – Good health and well-being, SDG 9 – Industry; Innovation and Infrastructure
- **Lesson Learned:** UNIDO provided capacity-building support for innovative technologies and business models, emphasizing the potential of digital technologies like AI and the opportunity to materialize them through joint ventures, partnerships, and technology

transfer. The combination of investment promotion tools and innovative solutions, including digitalization, facilitated the identification of a significant number of common projects with the aim to enhance industrial competitiveness and innovation.

- Media and Links:
 - <https://hub.unido.org/training-modules-aatbm>
- Contact Information: Alejandro Rivera Rojas (A.RIVERA-ROJAS@unido.org)

Project 2: Promoting sustainable bush-processing value chains in Namibia

- Project Description: In Namibia, where agriculture is a primary livelihood but suffers from low productivity, this project aims to bolster food and income sources by converting invasive bush species into valuable products like animal feed and charcoal. This initiative, responding to Namibia's challenges such as water scarcity, waste, and bush encroachment, leverages digital tools for sustainable land management and biomass processing. The NGGP plant, part of a strategic action plan, is set to produce high-value items from Acacia species, enhancing agro-industrial productivity. This will improve local and regional availability of livestock feed, energy, and other products, promoting better meat and dairy quality, reducing imports, and boosting exports.
- Achievements include:
 - Technological solutions for Acacia Bush product development.
 - Effective decision-making tools, including maps and innovative software.
 - GIS data mapping and analysis for Acacia tree management.
 - Automated Acacia detection using AI with satellite and drone images.
- Outputs include:
 - Advanced mapping, dashboards, and Web GIS tools.
 - Updated geospatial data management.
 - Automated analysis and mapping processes.
 - AI-powered Acacia species detection and mapping process and technology.
- Department/Division: Directorate of Technical Cooperation and Sustainable Industrial Development/ Division of Digital Transformation and AI
- Project Type/Output: AI processing of satellite and drone imagery, reports, Dataset, Software tools, Conferences
- Project Status: Ongoing
- Project Start Year: 2017
- Project End Year: 2024
- Project Domain: Agriculture, Environment, Energy
- Data Source: Geographic Information System (GIS) data—reference maps, satellite imagery, geospatial technology data, visual example data of Acacia bush trees
- Link to storymap: <https://storymaps.arcgis.com/stories/d316418096244bb0b00ece24082d7632>
- The libraries used are open source, the code developed is proprietary.
- Data publicly available: Yes
- Technology/Platform: The project is developed using the R programming language using RStudio.
- Project Updates:
 - Outputs in 2023:

- The Ministry of Industry and Trade of Namibia (MIT), as in kind contribution for the bush-processing plant in Otjiwarongo, has agreed to supporting the UNIDO Project with key utilities for the plant, such as electricity and water supply connections.
- The project has contributed to the key content to be presented, and featured as best practice in applying digital and AI solutions for real sector and socio-economic development at the UNIDO's launching of the Global Alliance on Artificial Intelligence for Industry and Manufacturing (AIM Global) at the World Artificial Intelligence Conference (WAIC) held in Shanghai, China on 6-8 July 2023 as well as at the AI for Good Global Summit 2023 in Geneva, Switzerland on 5-7 July 2023.
- A team of local harvesters supervised by the harvesting advisor were hired to collect bush harvest for trial sessions during the start-up of the bush-processing plant.
- The future recipes for the animal feed were verified and approved by the Ministry of Agriculture.
- Terms of Reference for the future management company of the production plant was developed and the Tender for the plant management company/plant operator was announced by MIT.
- On 24 November 2023, MIT informed about the Ministry's contribution of NAD 413,000.00 to support the installation of equipment at the plant, which is currently being covered by the local developer (that erected the hub buildings and infrastructure).
- Impact in 2023:
- Based on a detailed analysis of the viability to convert bush biomass into livestock feed and charcoal and taking into account environmental and social impacts, UNIDO proposed a set of suitable approaches, technologies and production processes to deliver bush-based final products for agricultural, chemical and pharmaceutical purposes, as well as domestic use. The results of this research published in a Strategic Action Plan proposes a market-oriented sustainable business model enabling to establish a bush biomass-based processing and production that leads to higher value-added products competitive on both local and external markets. This solution is expected to have a multiplier effect of the pilot plant by a factor of 30-50 in Namibia, and by 100 of similar plants to be established in the region.
- Thanks to the strong public-private partnership established with the support of UNIDO between the Government of Finland and a private equity fund, the partners are jointly establishing a unique pilot production plant that will be the first of its kind to convert invasive bush species into livestock feed and charcoal - a key step towards establishing zero-emission bush biomass processing and production in Namibia.
- Innovative digital technologies and know-how for responsible harvesting have been transferred: specifically, the Machine Learning Model for acacia species mapping that is based on remote sensing texture image analysis, satellite- and drone-supported imagery recognition for enhanced performance of the agricultural sector and related value chains during the COVID-19 crisis and beyond. Machine Learning algorithm was fine-tuned to provide yield predictions, which will enable the NGGP to produce high quality bio charcoal and animal feed. A special-purpose animal feed recipe developed by the project experts will help farmers optimise livestock feeding. The main expected benefits include the following:
 - Sustainable use of land in harmony with natural processes, improved farming practices and productivity: reduced land degradation and diminishing invasive bushes pave the way towards enhanced agricultural activities, which is the major source of food supply for the local population;
 - Address issues related to water management and shortages, waste generation and pollution;
 - Job creation: technological know-how, hands-on skills and ready-to-use business models facilitated by the project will provide better opportunities for sustainable jobs creation among women and men, especially in rural areas.

- Preparations for the operationalization of the special-purpose processing and production plant are underway following the installation of the procured equipment. National experts, including technicians, manufacturers, farmers, skilled and semi-skilled workers, entrepreneurs and their associations, as well as staff of local agencies and other stakeholders, are undergoing training on the collection and manufacturing of products derived from bush/Acacia.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 7 – Affordable and Clean Energy ; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production
- Partnership(s)/Collaborator(s) :
 - UN Partners: UNIDO, EURO Trust Funds
 - Government: Ministry of Foreign Affairs of Finland, Ministry of Industrialization, Trade and SME Development of Namibia, Ministry of Agriculture, Water and Forestry of Namibia,
 - Private Sector Funding
 - Civil Society: Trust Fund for Increased Food Security through Agribusiness, Trust Fund for Trade-related Capacity Building, Walvis Bay Corridor Group, Namibian Meat Board, Agricultural Bank of Namibia
 - Academia: University of Namibia
- Relevant Links and Multimedia:
 - UNIDO Open Data Platform: <https://open.unido.org/projects/NA/projects/170017>
 - ProDoc: <https://open.unido.org/api/documents/7524581/download/ProDoc%20Namibia%20170017%20signed.pdf>
 - Brochure: <https://www.unido.org/sites/default/files/files/2019-12/NAMIBIA%20BAOBAB%202020%20PDF%20WEB.pdf>
 - Strategic Action Plan for sustainable bush value chains: https://www.unido.org/sites/default/files/files/2020-02/Namibia_v_2.20-spreads%20%281%29.pdf
 - Twitter posts:
 - <https://twitter.com/UNIDOInnovation/status/1260240671551750145>
 - <https://twitter.com/UNIDOInnovation/status/1261323437630459904>
 - <https://twitter.com/UNIDOInnovation/status/1271459140548923395>
 - <https://twitter.com/UNIDOInnovation/status/1272906796135518208>
 - <https://twitter.com/UNIDOInnovation/status/1280513545235546117>
 - <https://twitter.com/UNIDOInnovation/status/1309523426776879107>
 - <https://twitter.com/UNIDOInnovation/status/1326475288805564417>
 - <https://twitter.com/UNIDOInnovation/status/1423669128464932865>
 - Practical Application: Web, Dashboard, AR-based manual on Mobile Devices <https://unido.maps.arcgis.com/apps/webappviewer/index.html?id=7e3265ab3bbc43b1a5b2a6b2c23dfc3a>



- Practical Application: Web, Dashboard, AR-based manual on Mobile Devices <https://unido.maps.arcgis.com/apps/webappviewer/index.html?id=7e3265ab3bbc43b1a5b2a6b2c23dfc3a>
- UNIDO Success Stories on Promoting Green and Smart Manufacturing, video recording: <https://xfiles.unido.org/index.php/s/cwNWW6792Rmo8M7>
- Lesson Learned: The project resulted in a novel machine learning algorithm, a resource that could be used in the future by further AI projects in Namibia and in regions facing similar bush encroachment and land degradation issues. The deployment of the technology has proven to be successful and the reliability of the Acacia-detection algorithms is high; the algorithms themselves could be training for other vegetation species and can be applied in other projects addressing issues related to sustainable biomass processing and detection of eligible species, improving agricultural productivity and strengthening drought resilience. This technological solution can produce a multiplier effect in terms of providing a market-oriented sustainable business model to benefit from biomass for production of competitive higher value added products, identification of market niches at local and external markets, thereby facilitating job creation.
 This project was especially valuable as an exploration of the applications of Artificial Intelligence and Machine Learning and the successful collaboration among several international organizations.
 As an added benefit and drawing upon the successful use of GIS in this project, UNIDO has committed to promoting the creation of a Global GIS Community to raise awareness on this technology, and to expanding GIS capacity across the organization.
 The project methodology holds high potential for subsequent implementation in the SADC Region, East Africa, Latin America, and even in Europe, where similar invasive species pose threats to traditional or emerging agricultural activities. International partners and national counterparts are already expressing strong interest in expanding industrial development of market-oriented and sustainable value chains within the cattle-related sector, including leather, textile, wool, and dairy products.
- Contact Information: Farrukh Alimdjano (F.ALIMDJANOV@unido.org), Kawira Bucyana (K.BUCYANA@UNIDO.ORG)

Project 3: Strengthening Implementation Design of Artificial Intelligence (AI) Eco-System in Jordan

- Project Description: To support building the Artificial Intelligence (AI) Ecosystem in Jordan aiming at creating job opportunities and improving the efficiency and quality of government services as well as enhancing the comprehensive social and economic development of different sectors, accelerating economic development, and creating suitable opportunities for innovation and entrepreneurship thus making Jordan a regional and enabling center for information technology.
 Project Background: Jordan's entrepreneurial ecosystem, pivotal for job creation and economic growth, has seen significant development over the last decade, with notable improvements in global entrepreneurship rankings. The country's efforts in nurturing technology entrepreneurship have positioned Jordanian startups prominently in the Arab World, showcasing a high level of education and experience among founders. Despite these advances, entrepreneurs face challenges such as high taxes, regulatory hurdles, and a need for legal reforms to foster a more business-friendly environment.
 In response, the Jordanian government, recognizing the importance of digital entrepreneurship and the digital economy, established the Ministry for Digital Economy and Entrepreneurship (MoDEE). This initiative aims to support digital entrepreneurship, enhance electronic payments, and develop digital skills. Key measures include expanding broadband access, promoting digital payments, and facilitating access to finance and global markets. Furthermore, to bolster Jordan's position in the digital economy and

leverage artificial intelligence (AI) for sustainable development, the government, in collaboration with UNIDO industry stakeholders, created its National AI Strategy and Implementation roadmap. This strategy, and its subsequent implementation roadmap, aims to:

- Promote the use of AI in all key economic sectors.
 - Build an enabling environment for AI that encompasses the legislative, regulatory and technological environment.
 - Develop a digital infrastructure to keep pace with AI needs and developments.
 - Build AI-specialized Jordanian capacities, expertise and skills, and employ knowledge in developing all sectors.
 - Strengthen the role of the public sector in the use of AI and its applications and build the necessary partnerships with the private sector with the aim of enhancing productive pathways toward sustainable development.
 - Strengthen AI business environment and increase investment and support for AI-related initiatives and Jordanian startups in the IT sector, providing service-based solutions.
 - Build a well-established system for scientific research, development, application and experimentation related to AI, and create the right environment for it.
 - Raise public awareness and increase confidence in AI in the public sector and all segments of society.
- Expected Outcome: Artificial intelligence ecosystem in Jordan established and the 2020 Jordan Artificial Intelligence Policy goals achieved.
 - Department/Division: Directorate of Technical Cooperation and Sustainable Industrial Development/ Division of Digital Transformation and AI
 - Project Type/Output: AI Strategy, Report, Technical Guidelines, and Practical Toolkit
 - Project Status: On going
 - Project Start Year: 2021
 - End Year: 2024
 - Project Domain: Trade, Innovation, Digital Transformation, Industrial Technology, Economic Competitiveness
 - Related Sustainable Development Goals (SDGs): SDG 8 -Decent Work and Economic Growth, SDG 9 - Industry; Innovation and Infrastructure; SDG 17 - Partnership for the Goals
 - Partnership(s)/Collaborator(s):
 - UN Partners: UNIDO, European Union
 - Government: Jordan
 - Impact in 2023:
 - The efforts by UNIDO, the Ministry of Digital Economy and Entrepreneurship of Jordan (MoDEE), and other development partners under the project have contributed to elevating Jordan's profile as an upper-middle-income country undergoing an AI-powered transition. According to the Government AI Readiness Index published by Oxford Insights in 2023, Jordan now ranks 55th out of 193 countries, as compared to 63rd place in 2022 and 81st in 2021. This improvement can be attributed to the publication of the AI Strategy and Implementation Roadmap for Jordan. Consequently, Jordan is poised to become a regional leader in terms of AI readiness, opening doors for additional innovation, investment promotion, and sustainable growth.
 - The implementation of this project signifies a significant milestone in promoting AI-powered digital transformation in Jordan and, ultimately, the development of a robust AI ecosystem. The project's impact was presented by Mr. Abdelkader Bataineh, Senior

Director of the Policies and Information Department at MoDEE, during the launch of UNIDO's Global Alliance on Artificial Intelligence for Industry and Manufacturing (AIM Global) on July 6, 2023, at the World Artificial Intelligence Conference in Shanghai, China.

- Lesson Learned: Navigating the governmental political landscape takes time and effort and thus has to be calculated in the overall timeframe of the project.
- Media and Links:

<https://www.dataguidance.com/news/jordan-ministry-announces-draft-ai-strategy-and>

- Contact Information: Farrukh Alimdjano (F.ALIMDJANOV@unido.org)

Project 4: Industry 4.0 to foster youth employment in Tunisia and Côte d'Ivoire

- Project background: This project document outlines UNIDO's proposed approach to address a major socio-economic problem in Tunisia, as well as in the complementary country Côte d'Ivoire, namely the high unemployment rates among youth and women. In the context of the industrial sector, the focal problem lies in the lack of dedicated policy and mechanisms as well as updated capabilities and infrastructure to benefit from the 4IR in promoting growth and fostering youth employment. BMZ's has a Special Initiative on training and Job Creation with emphasis on technology and innovation development and value chains promotion, under which the current project document is designed to boost integration into 4IR ecosystems combined with increased and enhanced employment opportunities and conditions in selected enterprises in Tunisia and Côte d'Ivoire. The suggested industrial sector for intervention are: Mechanical (engineering), textile, pharmaceutical, and agri-food. (Tunisia); ICT and agro-industry (Côte d'Ivoire).

The intervention will foster higher demand for skilled workers by addressing constraints on the business side that prevents firm growth and cluster development and will support youth and others to engage in these opportunities by increasing access to technology, skills, and information about jobs and business prospects. Consequently, the project will focus on agents working in the targeted clusters, especially youth and women, support for labour market integration, entrepreneurship, incubators and training structures; and strengthening of financing institutions (banks, micro-credit institutes, etc.). In addition, alignment will be sought with the broader framework of relevant national policies.

The project is addressing the main challenge identified in Tunisia, as well as in the complementary country Côte d'Ivoire, which is the high unemployment rates especially among youth and women. Regarding the industrial sector, the focal problem to be addressed is the identification and elaboration of missing points or gaps at dedicated policy and strategies, capability and infrastructure to adopt and benefit from the 4IR to promote growth and foster youth employment.

Specifically, the involved countries share the following challenges on their efforts towards transition to Industry 4.0:

- The lack of demonstrative institutions which showcase the potential of Industry 4.0 technologies.
- The lack of capacity to quantitatively measure the country's progress towards Industry 4.0 adoption.
- The lack of relevant courses in education curricula to promote digital skills development.
- The absence of industrial accelerators to support the industrial development capacities of start-ups.
- High unemployment rate among large youth populations.
- A considerable SMEs and labour base but lack technology, innovation, skills and access to finance thus limiting formal sector growth.

- Inexistent or inadequate regulations, laws, rules and policies in favour of employment (including youth and women) and SME development.
- Project objective: The main goal of UNIDO interventions is to support Tunisia and Côte d'Ivoire in increasing youth employment, salaries and labour conditions through shaping and consolidating a digital economy ecosystem. The envisaged wide impact of this objective will contribute to a structural transformation of the economy in Tunisia and set the ground for this transformation in Côte d'Ivoire in the targeted sectors, leading to sustainable job creation.

To accomplish this objective the project will carry out a set of activities that contribute to the following conditions:

- An active governance system, including sound labor regulations.
- A supportive business environment.
- Efficient mechanisms to build 4IR capacity among labor and businesses.
- Enhanced awareness of the opportunities of 4IR.

The project adopts an integrated approach that seeks to support the four conditions for employment generation and job security by simultaneously strengthening policy and regulations, and public-private partnerships that engage business. The project will also help establish 4IR demonstrations and build institutional capacities for training labour in 4IR and it will develop a support network among institutions in different countries promoting 4IR investments, partnerships, and financing. The project has the following six components, which will be fully implemented in Tunisia as the main and primary beneficiary, whereas some components will be implemented (with a limited scope) for Cote d'Ivoire (as the complementary country):

- Enhanced and conducive business environment for employment generation and adoption of 4IR technologies and methods within priorities VC and sectors (CIV will undergo the 4IR readiness assessment; specific strategies will be developed for the targeted sectors).
- Establishing a SMART factory within or adjacent to training facilities, development of curricula, facilities, and methodologies for 4IR integration and adoption (CIV will benefit from trainings and capacity building/services offered by the smart factory in Tunisia (i.e. virtual facilities)).
- Development of dedicated training capacity on 4IR knowledge in vocational centers, universities and business school (CIV to benefit from the trainings methods and material adapted from Tunisia, as well as ones developed for CIV)
- Establishing and strengthening of 4IR institutions and centers in selected country(s) for shared training, knowledge, experience and activities (CIV will benefit from established online platform for training, assistance, knowledge and experience sharing).
- Pilot on adopting and operating 4IR technologies in a selected number of enterprises (CIV will have a limited number of enterprises that will benefit from diagnosis, instalment of new technologies, trainings and skills development for staff).
- Investment promotion network digital transformation facilitation for attracting investors, partners and finances for acquiring 4IR technologies.
- Artificial Intelligence Component: The component on Smart Factory will allow the use, training and deployment of AI for increasing competitiveness of the enterprise sector. In addition, component five, will bring equipment and technologies supported by AI to enhance production and quality control, as well as to reduce waste and ensure compliance with market standards. Under output four, a number of trainings on AI and its application in manufacturing were provided to beneficiaries and trainers.
- Department/Division: Directorate of Technical Cooperation and Sustainable Industrial Development/ Division of Digital Transformation and AI
- Project Status: under implementation

- Project Start Year: 2022
- Project End Year: 2024
- Project Domain: I4.0, Youth Employment, Digital Transformation, Industrial Technology, Economic Competitiveness
- Related Sustainable Development Goals (SDGs): SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure;
- Partnership(s)/Collaborator(s):
 - UNIDO
 - Government: Tunisia, Cote D'Ivoire
- Contact Information
 - Rafik FEKI (R.Feki@unido.org)

Project 5: UNIDO Global Alliance on Artificial Intelligence for Industry and Manufacturing (AIM Global)

- Project Description: AIM Global to catalyze international partnerships across governments, industry, private sector, academia and civil society, committed to the responsible development and deployment of AI and frontier technologies in industry and manufacturing. The Alliance strives to redirect the trajectory of technological advancement towards shared progress and reduced digital divide by advancing industrial competitiveness, sustainable development, while ensuring fair and responsible access to AI's benefits across countries and industries. The Alliance seeks to support global exchanges on the use of technology, reduce the digital gap, and promote the safe, inclusive, and sustainable application of artificial intelligence (AI) in industry and manufacturing. By uniting key players from government, industry, academia, and civil society, the Alliance aligns with the UN Secretary-General's call in the "Our Common Agenda" report for a Global Digital Compact to ensure an "open, free, and secure digital future for all." It aims to enhance industrial competitiveness and sustainable development through AI, ensuring its benefits are distributed fairly and sustainably, while addressing challenges like AI literacy, ethical considerations, and data protection.
- Department/Division: Directorate of Technical Cooperation and Sustainable Industrial Development/ Division of Digital Transformation and AI
- Project Type/Output: Convening Function, Events, Knowledge Products
- Project Status: Ongoing
- Project Start Year: 2023
- End Year: continuous.
- Project Domain: Digital Transformation, AI, IR 4.0, IR 5.0
- Publicly available data: <https://aim.unido.org/>
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 7 – Affordable and Clean Energy; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s) :
 - UNIDO
 - Private sector: Huawei (China)
- Relevant Links and Multimedia: <https://aim.unido.org/>
- Contact Information: Jason Slater (j.slater@unido.org)

Project 6: Alliance for I4.0 and Smart Manufacturing in Africa (AISMA)

- **Project Description:** Africa has been left behind during the past industrial revolutions, despite its affluent population and natural resources. In this context, Industry 4.0 and smart manufacturing offer significant opportunities and challenges to manufacturing companies in the African continent. But failure to harness these opportunities and overcome the challenges will undoubtedly impose considerable risks on the socio-economic development of African countries, especially for youth at risk of unemployment. Hence, without efforts to coordinate, develop and improve the existing policies, institutional and legal frameworks, physical/digital infrastructure, innovation models, education/ vocational training programmes and funding schemes on the continent, African manufacturing companies risk falling further behind, exacerbating the global “digital divide” and lowering Africa’s global competitiveness.

The Alliance aims to address this by unlocking the potential of smart manufacturing in Africa through raising awareness on Industry 4.0, fostering collaboration among diverse stakeholders within the Industry 4.0 ecosystem and facilitating the adoption of frontier technologies in manufacturing companies across the continent.

AISMA will provide a collaboration platform for a wide range of experts from academia, industry, private sector, policy makers, technology providers, financial institutions or any other structure relevant to the adoption of Industry 4.0 within the African continent. The network of experts will focus on exchanging knowledge and expertise, sharing best practices and forging strategic partnerships on Industry 4.0 related themes such as industry applications, digitalization technologies, skills development, scientific research and innovation, standardization and policies/strategies, just to name a few. AISMA will also offer a number of tools and support functions to its members.

AISMA ultimately aims to promote Africa's integration, generate inclusive and sustainable development, stimulate job creation, empower people and break the digital divide, in accordance with the UN Secretary-General's call to establish a Global Digital Compact that upholds shared principles for an open, free, and secure digital future for all. It also aligns with the goals and objectives set by the African Union through the Digital Transformation Strategy for Africa (2020-2030).

UNIDO launched the Alliance for I4.0 and Smart Manufacturing in Africa (AISMA) on 28 November 2023 on the margin of the twentieth session of UNIDO General Conference. For its launch, several leading experts from various organizations committed to support UNIDO’s efforts to enhance Africa industrial competitiveness and sustainable development through Industry 4.0 and smart manufacturing.

The Alliance will contribute to:

- UNIDO’s motto – Progress by innovation
- The Alliance for I4.0 and Smart Manufacturing in Africa (AISMA), aligns with UNIDO's motto (“Progress by Innovation”), by creating an environment that is conducive for innovation, as it brings experts, academia, industry professionals and decision makers from the African continent together, and provide the tools to exchange and develop innovative initiative and approaches to address the needs of the African continent.
- UNIDO’s vision - a leading platform for knowledge and technology transfer, innovation and investment
- It aims to raise awareness of Industry 4.0 (I4.0) in Africa, facilitate the adoption of I4.0 technologies, and provide a platform for information sharing, knowledge creation, and innovative proposals on I4.0 related themes. In addition, it fosters collaboration among diverse stakeholders within the Industry 4.0 ecosystem and facilitates the adoption of frontier technologies across the continent, aligning with UNIDO's vision and strategic objectives.

The Alliance will have the following functions:

- Conducting research, surveys and in-depth data analysis on 4ir related issues in the African context
- Prepare policy briefs for decision makers
- Monitor and evaluate impact of policies and initiatives of I4.0
- Creating a space for communication and exchange of experience knowledge and data.
- Providing a facility for training, capacity building and skill development
- Facilitating interaction between policy makers, academia, private sector, technology providers and financial institutions to fine-tune and align policies and initiatives.
- Supporting industry define their specific digitalization & industrialization journey and accessing/implementing I4.0 methods, technologies and tools
- Identifying mechanisms for financing I4.0 adoption in Africa and facilitating access to such mechanisms for startups, SMEs and digital entrepreneurs
- Promoting conducive legal and ethical frameworks for I4.0 applications by providing recommendations for governments and industries
- Promotion and raising awareness on I4.0 themes (impact on employment, gender, business models, best practices, etc.)
- Department/Division: Directorate of Technical Cooperation and Sustainable Industrial Development/ Division of Digital Transformation and AI Strategies
- Project Type/Output: policies and strategies, standardization, training and skills development, digitalization technologies, industry applications
- Project Status: Ongoing
- Project Start Year: 2023
- End Year: continuous
- Project Domain: Smart manufacturing in Africa, industry 4.0
- Publicly available data: https://www.unido.org/sites/default/files/files/2024-02/AISMA_Leaflet.pdf
- Related Sustainable Development Goals (SDGs): SDG 9 - Industry; Innovation and Infrastructure;
- Relevant Links and Multimedia: https://www.unido.org/sites/default/files/files/2024-02/AISMA_Leaflet.pdf
- Contact Information: Rafik FEKI (R.FEKI@unido.org)

Project 7: Venezuela “Industrial Upgrading and Modernization Programme for the Bolivarian Republic of Venezuela (Phase I)”

- Project Description: The project supported in enhancing food security and boosting employment through modernizing five agro-industrial value chains by strengthening local capacities in industrial processing and the supply of essential inputs, particularly for agro-industrial cooperatives. This technical support led to significant yield improvements through the use of digital and AI-powered solutions, including multispectral drones, GIS-based spraying drones, satellite imagery, and a mobile app for monitoring agricultural machinery speed. The integration of AI and improved agricultural practices increased yields by 28% and boosted profit margins by up to 25% compared to baseline levels
- Project Type/Output: Convening Function, Events, Knowledge Products, Technology transfer
- Project Status: Ongoing
- Project Start Year: 2020
- End Year: 2025.
- Project Domain: Digital Transformation, AI, IR 4.0, IR 5.0

- Publicly available data:
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s) :
 - UNIDO
- Relevant Links and Multimedia:
- Contact Information: Farrukh Alimdjnov, f.alimdjnov@unido.org

Project 8: Indonesia UN Joint Programme “Accelerating SDGs Investment in Indonesia”

- Project Description: UNIDO’s SME upgrading component in Lombok focused on strengthening the resilience and competitiveness of SMEs in traditional and creative industries such as textiles, handicrafts, jewelry, and agri-food. It provided tailored support through technology transfer and skills development. By adopting innovative industrial design, digital marketing, and branding strategies, SMEs improved operations, built stronger links with the tourism sector, created jobs, and accessed new financing channels. In shrimp farming, the project introduced AI-powered tools – smart water quality sensors for continuous monitoring of critical water parameters such as pH, temperature, dissolved oxygen, and ammonia levels. Real-time data analysis enabled prompt decision-making and optimized pond conditions, leading to healthier stock and higher yields.
- Project Type/Output: Convening Function, Events, Knowledge Products, Technology transfer
- Project Status: Ongoing
- Project Start Year: 2020
- End Year: 2025.
- Project Domain: Digital Transformation, AI, IR 4.0, IR 5.0
- Publicly available data:
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s) :
 - UNIDO
- Relevant Links and Multimedia:
 - <https://www.unido.org/stories/empowering-indonesian-female-entrepreneurs-traditional-textile-sector>
- Contact Information: Farrukh Alimdjnov, f.alimdjnov@unido.org

Project 9: Morocco Study on the Use of Artificial Intelligence in the Industrial Sector in Morocco "Support for Moroccan Companies in Adopting Industry 4.0: From Implementing Smart Factories to Enhancing Competitiveness and Innovation of Moroccan Enterprises

- Project Description: As part of a collaborative initiative between UNIDO and the ADD, a comprehensive study was conducted to explore the application of Artificial Intelligence (AI) in Morocco’s industrial sector. The project aimed to assess the potential

of AI to enhance productivity, competitiveness, and inclusive growth, while identifying strengths, weaknesses, opportunities, and threats across political, economic, social, technological, environmental, and regulatory dimensions. The study culminated in strategic recommendations and a best practice guide to support industrial stakeholders in integrating AI into their Industry 4.0 transformation plans, emphasizing the importance of data culture, robust infrastructure, and workforce upskilling for successful AI adoption.

Project 10: Egypt European Union support to trade, industry, growth and rapid market access “Demonstration of Smart Hive Technology in the honey cluster in Egypt

- **Project Description:** As part of UNIDO’s TIGARA project, and in collaboration with local technology providers, the project will implement pilot demonstration models of AI-based solutions in target clusters. These pilots aim to serve as proof of concept and encourage SME adoption by showcasing tangible benefits in productivity, cost-efficiency, and market responsiveness. These AI-driven solutions aim to solve the issues relating to quality inspection and control, as well as early warning systems for diseases and climate change. As a first example initiative, it has been agreed to pilot two smart hives in coordination with the Beekeeping Research Center, to serve as reference models, and to assess the impact of smart hive monitoring using AI and IoT-driven hive monitoring to interpret sensor data for hive health, behaviour analysis, and resource optimization enhancing productivity, quality, and bee health in the honey cluster.

Project 11: Ghana “Improving the technology and quality control system for higher value addition in the post-harvest processes of the rice value chain (ITEQ)”

- **Project Description:** As part of UNIDO’s ITEQ-Rice project in Ghana, three AI-powered optical colour sorters were donated to women’s groups in remote areas of the Mion District to improve rice processing and quality control. These machines use artificial intelligence, computer vision, and machine learning to rapidly detect and remove defective grains based on color, shape, and size, replacing the time-consuming manual sorting process. This intervention not only enhances efficiency and product quality but also frees up significant time for women rice processors, enabling them to engage in other productive and income-generating activities
- **Project Type/Output:** Convening Function, Events, Knowledge Products, Technology transfer
- **Project Status:** Ongoing
- **Project Start Year:** 2022
- **End Year:** 2025.
- **Project Domain:** Digital Transformation, AI, IR 4.0, IR 5.0
- **Publicly available data:**
- **Related Sustainable Development Goals (SDGs):** SDG 1 – No Poverty; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- **Partnership(s)/Collaborator(s) :**
 - UNIDO
- **Relevant Links and Multimedia:**
- **Contact Information:** Nikolaus Martys n.martys@unido.org

Project 12: Western Balkans “Fostering Industry 4.0 for green transition and circular economy in the Western Balkans”; “BRICS Centre for Industrial Competencies (BCIC)”

- Project Description: The projects have implemented an interactive community platform that enables members to showcase their organizations’ profiles. The platform also allows users to list products, services, projects, and areas of expertise in a shared marketplace. Additionally, it supports scheduling of online meetings with potential partners. An integrated AI-powered recommender system intelligently suggests relevant organizations based on user behaviour and preferences, significantly streamlining the process of discovering valuable connections and opportunities within the community.
- Project Type/Output: Convening Function, Events, Knowledge Products, Technology transfer
- Project Status: Ongoing
- Project Start Year: 2023
- End Year: 2027.
- Project Domain: Digital Transformation, AI, IR 4.0, IR 5.0
- Publicly available data:
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s) :
 - UNIDO
- Relevant Links and Multimedia:
- Contact Information: Aleksei Savrasov, a.savrasov@unido.org

2. Related Sustainable Development Goals

SDG 1 – No Poverty; SDG 7 – Affordable and Clean Energy; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 12 – Responsible Consumption and Production; SDG 17 – Partnerships for the Goals

3. Related Links

- UNIDO Main Web site: www.unido.org
- UNIDO Open Data Platform: <https://open.unido.org>
- UNIDO IATI Publication (d-portal) https://d-portal.org/ctrack.html?reporting_ref=XM-DAC-41123#view=main
- UNIDO Technical Cooperation: <https://www.unido.org/technical-cooperation>
- General Contact Information: das@unido.org

United Nations Institute for Training and Research



1. Description of Activities on AI

Project 1: AI Briefings for the Diplomatic Community AI and Diplomacy Trainings

- Project Description: The Division for Multilateral Diplomacy (DMD) launched a series of training activities in the field of Artificial Intelligence (AI) and Diplomacy to the benefit of the diplomatic community. The aim of this initiative is to delve into the sphere of AI and Diplomacy, analyzing the impacts, implications, and frameworks in place needed to navigate the opportunities and intricacies that AI is bringing to the diplomatic world and overall global context. These trainings allow DMD to support the achievement of the Sustainable Development Goals (SDGs) and support the reskilling and upskilling of diplomats and UN personnel to adapt to the future of work and become empowered and informed global decision-makers. UNITAR DMD has delivered three briefings for the diplomatic community on Introduction to Generative AI, AI and Diplomacy and AI and Education.
- Department/Division: Division for Multilateral Diplomacy (DMD)
- Project Type/Output: Training and Research
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Diplomatic Trainings
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goal
- Partnership(s)/Collaborator(s)(s):
 - n/a
- Relevant Links and Multimedia:
 - <https://unitar.org/courses/free-face-face-training-introduction-generative-artificial-intelligence-geneva-based-permanent-11704>
 - <https://event.unitar.org/full-catalog/free-face-face-training-artificial-intelligence-and-diplomacy>
 - <https://event.unitar.org/full-catalog/free-face-face-training-artificial-intelligence-and-diplomacy>
- Contact Information: ai.mdp@unitar.org ; Amine Mesdouda (amine.mesdouda@unitar.org); Malcolm Olivieri (malcolm.olivieri@unitar.org); Konstantinos Stravoravdis (konstatntinos.stravoravdis@unitar.org)

Project 2: AI Forum “Three Horizons: Governance, Education and the Future of Work”

- Project Description: The Division for Multilateral Diplomacy (DMD) and IE University (IE) jointly hosted a Forum on Artificial Intelligence (AI) in Madrid. The Forum focused on various aspects of AI, including governance, ethics, education, and the corporate world. Entitled, ‘Three Horizons: Governance, Education and the Future of Work’, it brought together around 100 participants from a variety of sectors, including government officials, academia, private sector specialists, and education and training providers, to discuss the impact of AI across various domains. UNITAR and IE jointly organized the event within the premises of the IE Tower in Madrid. This Forum allowed DMD to support the achievement of the Sustainable Development Goals (SDGs) and spread the knowledge on pivotal areas for all beneficiaries from different sectors to become empowered and informed professionals, educators, and global decision-makers.
- Department/Division: Division for Multilateral Diplomacy (DMD)
- Project Type/Output: Training and Research
- Project Status: Developed
- Project Start Year: 2023
- Project Domain: Diplomatic Trainings
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goal
- Partnership(s)/Collaborator(s)(s):
 - IE University
- Relevant Links and Multimedia:
 - <https://unitar.org/about/news-stories/news/unitar-and-ie-university-jointly-hosted-forum-artificial-intelligence>
- Contact Information: Amine Mesdoua (amine.mesdoua@unitar.org); Malcolm Olivieri (malcolm.olivieri@unitar.org); Konstantinos Stravoravdis (konstantinos.stravoravdis@unitar.org)

Project 3: Online Certificate in Artificial Intelligence and Professional Skills

- Project Description: UNITAR Division for Multilateral Diplomacy (DMD) launched a flagship educational initiative aimed at fostering inclusive and future-ready professional skills: the Online Certificate in Artificial Intelligence and Professional Skills. This pioneering programme addresses the urgent global need to bridge the digital divide by equipping participants with both foundational knowledge and practical competencies to leverage artificial intelligence effectively across sectors. Structured to integrate rigorous theoretical frameworks with practical, hands-on applications, the Certificate empowers participants to understand, navigate, and shape the evolving digital landscape. In doing so, it strengthens capacities critical for the workplaces of tomorrow, while fostering innovation, adaptability, and ethical engagement with emerging technologies. Demonstrating UNITAR’s steadfast commitment to leaving no one behind, the programme actively promotes equitable access by offering scholarships and fee waivers to participants from Least Developed Countries (LDCs) and Small Island Developing States (SIDS). Through this targeted support, UNITAR contributes meaningfully to closing the global digital divide and enhancing the participation of underrepresented communities in the Fourth Industrial Revolution.

- Department/Division: Division for Multilateral Diplomacy (DMD)
- Project Type/Output: Training and Research
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Online Certificate
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: Zoom
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 8 – Decent Work and Economic Growth; SDG 10 – Reduced Inequalities;
- Partnership(s)/Collaborator(s)(s):
 - n/a
- Relevant Links and Multimedia:
 - <https://event.unitar.org/full-catalog/certificate-artificial-intelligence-and-professional-skills>
- Contact Information: ai.mdp@unitar.org; Amine Mesdoua (amine.mesdoua@unitar.org); Malcolm Olivieri (malcolm.olivieri@unitar.org); Konstantinos Stravoravdis (konstatntinos.stravoravdis@unitar.org)

Project 4: Artificial Intelligence and International Affairs Bulletin

- Project Description: In line with its commitment to advancing knowledge and capacity-building in emerging fields, the Division for Multilateral Diplomacy (DMD) of UNITAR developed the AI | IA (Artificial Intelligence & International Affairs) Bulletin. The Bulletin is designed to inform and empower the international affairs and diplomatic community by providing timely, relevant insights into the rapidly evolving domain of artificial intelligence. Published on a monthly basis, the AI | IA Bulletin curates excerpts from the latest news, highlights upcoming events and training opportunities, and shares key resources relevant to the intersection of AI and global governance. It serves as a strategic tool to help diplomats and international affairs professionals stay abreast of critical technological developments that are reshaping the landscape of international relations. Artificial Intelligence is now impacting our societies and lives more profoundly than ever—both at personal and professional levels. While foundational work in AI dates back to the 1950s, 2023 marked a watershed moment, with the technology evolving at an unprecedented pace. This rapid transformation calls upon governments, international organizations, regulatory bodies, the private sector, and decision-makers across all sectors to recognize, engage with, and adapt to this powerful and disruptive force.
- Department/Division: Division for Multilateral Diplomacy (DMD)
- Project Type/Output: Training and Research
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Bulletin
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 10 – Reduced Inequalities;
- Partnership(s)/Collaborator(s)(s):
 - n/a

- Relevant Links and Multimedia:
 - o <https://unitar.org/sustainable-development-goals/multilateral-diplomacy/our-portfolio/artificial-intelligence-and-international-affairs-bulletin>
- Contact Information: ai.mdp@unitar.org; Amine Mesdoua (amine.mesdoua@unitar.org); Malcolm Olivieri (malcolm.olivieri@unitar.org); Konstantinos Stravoravdis (konstantinos.stravoravdis@unitar.org)

Project 5: SKAI assessment

- Project Description: UNOSAT, in collaboration with [UN Global Pulse](#) and Google Research through the [DISHA initiative](#), implemented SKAI, an AI-assisted Damage Assessment Solution that transforms infrastructure damage assessment. The solution leverages three advanced models: Open Buildings for structure detection, SKAI Zero-Shot for rapid damage identification, and SKAI Fine-Tuned for precise classification of building damage. In 2024, SKAI assessment has been tested across 9 natural hazards including the February 2023 earthquakes in Syria, July 2024 tropical cyclone Beryl in the Caribbean, and May 2024 floods in Bangladesh. This assessment tool supports humanitarian response; analysts could assess seven times more area while reducing assessment time from several days to under 24 hours. This improvement enables organizations to better understand evolving on-the-ground situations, particularly during crises that unfold over multiple days. Final accuracy assessments are now underway.
- Department/Division: United Nations Satellite Centre (UNOSAT)
- Project Type/Output: Research and Training
- Project Status: Development
- Project Start Year: 2024
- Project Domain: Other – Geographic Information System (GIS)
- Data Source: Copernicus Sentinel-1 satellite imagery, flood maps, exposed population impact layer
- Data Publicly Available: Yes
- Technology/Platform: NVIDIA Deep Learning Institute
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 6 – Clean Water and Sanitation; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goal
- Partnership(s)/Collaborator(s)(s):
 - o UN Global Pulse
 - o Google Research
- Relevant Links and Multimedia:
 - o <https://www.unglobalpulse.org/ai-from-google-research-and-un-boosts-humanitarian-disaster-response-wider-coverage-faster-damage-assessments>
- Contact Information: Einar Bjorgo (einar.bjorgo@unitar.org)

Project 6: NVIDIA

- Project Description: The United Nations Satellite Centre (UNOSAT) announced a collaboration with NVIDIA on training and research activities to promote the use of Artificial Intelligence (AI) for Earth Observation activities in support of the Sustainable Development Goals (SDGs), with an initial emphasis on disaster management. This

cooperation framework allows UNOSAT and NVIDIA to benefit from their respective facilities, resources, and domain experience. The collaboration has two initial priorities: 1) integration of NVIDIA's accelerated computing platform within UNOSAT's infrastructure to fast track research and development of AI for Earth Observation and 2) design and roll out of an e-learning course on the use of deep learning for flood detection to upskill data scientists within disaster management agencies worldwide.

- Department/Division: United Nations Satellite Centre (UNOSAT)
- Project Type/Output: Research and Training
- Project Status: Development
- Project Start Year: 2022
- Project Domain: Other – Geographic Information System (GIS)
- Data Source: Copernicus Sentinel-1 satellite imagery, flood maps, exposed population impact layer
- Data Publicly Available: Yes
- Technology/Platform: NVIDIA Deep Learning Institute
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 6 – Clean Water and Sanitation; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goal
- Partnership(s)/Collaborator(s)(s):
 - NVIDIA
- Relevant Links and Multimedia:
 - <https://blogs.nvidia.com/blog/2022/06/24/un-satellite-centre-boosts-sustainable-development-goals/>
 - <https://courses.nvidia.com/courses/course-v1:DLI+S-ES-01+V1>
- Contact Information: Einar Bjorgo (einar.bjorgo@unitar.org)

Project 7: UNOSAT S-1 FloodAI

- Project Description: The UNITAR-UNOSAT designed, developed, and deployed UNOSAT S-1 FloodAI: an end-to-end pipeline where Copernicus Sentinel-1 Synthetic Aperture Radar (SAR) imagery of flood-prone areas are automatically downloaded and processed by a deep learning model to output flood vector data and update operational dashboards. Access to timely and accurate data could not only inform the decision-making process to help optimize the disaster response, but it also has the potential to significantly reduce the loss of life and mitigate structural damage, particularly in the context of humanitarian operations, thus supporting both national authorities and international emergency management organizations for the benefit of affected populations.
- Department/Division: United Nations Satellite Centre (UNOSAT)
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2019
- Project Domain: Other – Geographic Information System (GIS)
- Data Source: Copernicus Sentinel-1 satellite imagery, flood maps, exposed population impact layer, JRC permanent water layer
- Data Publicly Available: Yes

- Technology/Platform: UNOSAT S-1 FloodAI was deployed on a local GPU at the European Organization for Nuclear Research (CERN) connected to a 64 TB data storage server and a high-speed CERN internet connection. The entire infrastructure is currently in the process of being transferred to a cloud centralized service at CERN built on Kubeflow, a machine learning platform on Kubernetes. The deep learning model was written in Pytorch. The operational dashboard is based on an ESRI dashboard linked to a web map.
- Project Updates: Previously reported in 2021 as “Project 3: Flood Mapping - UNOSAT FloodAI”, is now fully deployed and embedded as one of the UNOSAT Rapid Mapping Service.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 6 – Clean Water and Sanitation; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goal
- Partnership(s)/Collaborator(s)(s):
 - UN Partners: UN Global Pulse
 - Academia: European Organization for Nuclear Research (CERN) , NVIDIA
- Relevant Links and Multimedia:
 - <https://www.unitar.org/about/news-stories/news/unosat-flood-ai-dashboards-nepal-creation-one-stop-shop-real-time-evidence-based-decision-making>
 - <https://www.mdpi.com/2072-4292/12/16/2532>
 - <https://ahacentre.org/wp-content/uploads/2022/07/ARMOR-3rd-Ed.pdf>
- Contact Information: Einar Bjorgo (einar.bjorgo@unitar.org)

Project 8: Mapping Refugee Settlement and Damage Assessment with Machine Learning and Remote-Sensing Data

- Project Description: The purpose of this project is the creation of an end-to-end pipeline that takes high-resolution satellite imagery as input and returns damage assessment maps in the form of a building footprint together with a damage class label.
- Department/Division: United Nations Satellite Centre (UNOSAT)
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2018
- Project Domain: Geographic Information System (GIS)
- Data Source: Satellite data, building footprints, damage assessment data
- Data Publicly Available: No
- Project Updates: Previously reported in 2020 as “Project 3: Mapping refugee settlement with machine learning and remote-sensing data”. The focus is now not only on mapping refugee settlement, but on building footprints in general and damage assessment.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - Academia: European Organization for Nuclear Research (CERN), CERN Openlab, Wuhan University

- Relevant Links and Multimedia:
 - <https://arxiv.org/abs/2201.10953v2>
- Contact Information: Einar Bjorgo (einar.bjorgo@unitar.org)

Project 9: ML4Floods

- Project Description: UNITAR-UNOSAT partner with Trillium Technologies and FDL Europe to test and use ML4Floods: an ecosystem of data, models and code pipelines to tackle flooding with machine learning ML. After a successful testing phase of the methodology, UNOSAT is implementing ML4Floods into its operations and deploying the tool into the UNOSAT AI pipeline at CERN.
- Department/Division: United Nations Satellite Centre (UNOSAT)
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2021
- Project Domain: Geographic Information System (GIS)
- Data Source: Copernicus Sentinel-2 images, flood maps from Copernicus EMS, UNOSAT and GloFIMR, JRC Permanent water layer
- Data Publicly Available: Yes
- Technology/Platform: Google Cloud Platform, Pytorch, pytorch lightning, weights and biases, GDAL, jupyter notebook, colab tutorials.
- Related Sustainable Development Goals (SDGs): SDG 1 – No Poverty; SDG 3 – Good Health and Well-Being; SDG 6 – Clean Water and Sanitation; SDG 8 – Decent Work and Economic Growth; SDG 9 – Industry, Innovation, and Infrastructure; SDG 10 – Reduced Inequalities; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 15 – Life on Land; SDG 16 – Peace, Justice, and Strong Institutions; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s)(s):
 - Private Sector: Trillium Technologies
 - Academia: Frontier Development Lab Europe
- Relevant Links and Multimedia:
 - <http://trillium.tech/ml4floods/content/intro/introduction.html>
 - [ML4Floods time series segmentation](#)
- Contact Information: Einar Bjorgo (einar.bjorgo@unitar.org)

Project 10: Masterclass on Leading the AI Revolution – Strategy, Innovation, and Global Impact

- Project Description: UNITAR hosted a high-level AI Strategy Masterclass on 24-25 October 2024 at the Palais des Nations in Geneva, bringing together 20 policymakers and diplomats from 18 countries to explore how artificial intelligence can drive sustainable development and global impact. The two-day event focused on developing national AI strategies, addressing the digital divide, and aligning innovation with the UN's Pact for the Future, emphasizing the importance of ethical, inclusive, and forward-looking approaches to AI governance.
- Department/Division: Division for Prosperity
- Project Type/Output: Training and Research
- Project Status: Completed

- Project Start Year: 2024
- Project Domain: Masterclass
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 10 – Reduced Inequalities;
- Partnership(s)/Collaborator(s)(s):
 - n/a
- Relevant Links and Multimedia:

<https://unitar.org/about/news-stories/news/unitar-hosts-ai-masterclass-shaping-future-artificial-intelligence-global-impact>

- Contact Information: Michael Adalla (michael.adalla@unitar.org)

Project 11: AI Innovations for Sustainable Development Workshop

- Project Description: UNITAR hosted an interactive AI workshop gathering 40 participants to explore the ethical and practical applications of artificial intelligence in sustainable development. The session focused on real-world use cases in healthcare, education, agriculture, and climate action, particularly in low-resource settings. Participants examined inclusive and responsible AI strategies that address global disparities and foster innovation for the common good.
- Department/Division: Division for Prosperity
- Project Type/Output: Training and Research
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Workshop
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 10 – Reduced Inequalities;
- Partnership(s)/Collaborator(s)(s):
 - n/a
- Relevant Links and Multimedia:

<https://unitar.org/about/news-stories/news/ai-driven-sustainable-solutions-overcome-global-challenges-event-report>

- Contact Information: Michael Adalla (michael.adalla@unitar.org)

Project 12: Panel Discussion on “AI Innovations for Sustainable Development” and “AI Innovations for Strengthening Societal Resilience”

- Project Description: UNITAR convened a high-level panel discussion featuring experts from the Division for Prosperity Advisory Board to explore AI’s role in strengthening societal resilience and combating financial crime. The session engaged over 40 participants in a dialogue on aligning AI technologies with human rights, ethics, and

sustainable development priorities. Panelists emphasized the importance of transparent, inclusive, and future-oriented approaches to AI governance.

- Department/Division: Division for Prosperity
- Project Type/Output: Training and Research
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Panel Discussion
- Data Source: UNITAR
- Data Publicly Available: n/a
- Technology/Platform: n/a
- Related Sustainable Development Goals (SDGs): SDG4 Quality Education; SDG 10 – Reduced Inequalities;
- Partnership(s)/Collaborator(s)(s):
 - n/a
- Relevant Links and Multimedia:
 - <https://unitar.org/about/news-stories/news/ai-driven-sustainable-solutions-overcome-global-challenges-event-report>
- Contact Information: Michael Adalla (michael.adalla@unitar.org)

2. Related Sustainable Development Goals

SDG 1, 3, 6, 8, 9, 10, 11, 13, 15, 16, 17

3. Related Links

<https://unitar.org/>

Contact Information

Amine Mesdoua (amine.mesdoua@unitar.org)

United Nations Joint Staff Pension Fund



UNJSPF

United Nations Joint Staff Pension Fund

1. Description of Activities on AI

Project: UNJSPF Digital Certificate of Entitlement

- Project Description: The UNJSPF “Digital Certificate of Entitlement” (DCE) system is a state-of-the-art mobile application (App) and web-based authentication solution that can verify the identity, existence, transactions, and location of the United Nations Joint Staff Pension Fund (UNJSPF) retirees (about 80,000 individuals located in more than 190 countries), providing a faster, secure, and easier way to meet the requirements for continued benefit payments.

The DCE system allows retirees to use their smartphone, tablet, or other personal device to submit an electronic proof of their eligibility, in lieu of paper-based submissions. The solution uses cutting edge biometric/facial recognition, blockchain, AI, and global positioning technologies to confirm the eligibility of retirees.

The DCE was developed by UNJSPF with the support of the UN International Computing Center, and piloted in 2020, with retirees from the World Food Programme and the Food and Agricultural Organization of the United Nations. Its deployment was then fast-tracked in 2021, as a response to the worldwide disruption of postal services caused by the COVID-19 pandemic.

The DCE introduced innovative processing changes and organizational efficiencies, using a secure and user-friendly design based on new technologies, making it an environmentally friendly solution, which significantly reduced the use of paper, mailings, as well as physical and digital storage.

Aligned with the UN Secretary-General’s strategies on “New Technologies” and “UN2.0”, the vision of a digital United Nations, as well as the Sustainable Development Goals and the Global Digital Compact, the DCE is part of the implementation of the UNJSPF strategy in simplifying client experience and modernizing the Fund’s services.

Assurance on the DCE solution is based on independent certifications and audits, including:

- ISO 42001 Certification on the Responsible Use of Artificial Intelligence
- ISO27001 Certification on Information Security
- Ethics Audit
- Algorithm Audit
- NIST verification of the biometric algorithm

The DCE solution received the:

- United Nations Secretary-General Award for Innovation and Sustainability; and
- Government Blockchain Association Award for Social Impact.
- Furthermore, the DCE solution was the subject of a case study published by Gartner Inc., as an example of digital transformation in the public sector.
- As of November 2023, over 40 per cent of the UNJSPF retirees’ population has sought enrolment in the UNJSPF/DCE solution. Furthermore, to address potential issues of

“digital divide”, UNJSPF recently deployed a new “kiosk version”, extending the ability to use the DCE solution to UN retirees who do not own a computing device.

- For more information about the [UNJSPF Digital Certificate of Entitlement](https://www.unjspf.org/newsroom/unjspf-digital-certificate-of-entitlement-wins-the-united-nations-secretary-general-award-for-innovation-and-sustainability) please visit <https://www.unjspf.org/newsroom/unjspf-digital-certificate-of-entitlement-wins-the-united-nations-secretary-general-award-for-innovation-and-sustainability>
- Project Type/Output: Software tool supporting Digital Identity for Proof-of-Life
- Project Status: Completed (and in production)
- Project Start Year: 2017
- Project End Year: 2021 (With ongoing expansion/extension of the scope)
- Project Domain: Environment, Health, Human Rights, Poverty, Telecommunications, Other: Governance & Public Services, Finance & Banking, Supply-chain, Cybersecurity
- Data Source:
 - Demographic data = UNJSPF retirees and beneficiaries -> Held and processed on UNJSPF/UNICC systems covered by UN Privileges and Immunities
 - Biometrics, transactions, and locations data = Retirees and beneficiaries’ devices -> Held on users’ devices and protected by tamper-resistant “Hardware Security Modules”, with advanced encryption
 - In accordance with ISO/IEC 29100/2011/Amd 1:2018, personally identifiable information are not stored on the blockchain.
- Technology/Platform:
 - The DCE Technology Stack (version 4.0), is composed of:
 - UI Screens & User Interaction = React Native/TS/JS
 - Custom Application Modules (platform dependent):
 - Services
 - Face features extraction service: Insightface; PyTorch
 - Face verification service: Insightface; PyTorch -> UNICC Biometric AI Solution (NIST FRVT verified)
 - ID Document scanning AI solution -> UNICC Doc Scan Solution
 - Real-time liveness and face detection service: ML Kit (Android); iOS Core ML (Apple)
 - Hardware encryption service: Hardware-backed keystore (Android); Apple Secure Enclave (Apple)
 - Platforms: Kotlin/Java (Android); Swift/Objective C (Apple)
 - Blockchain:
 - Digital Wallet: Hyperledger Aries
 - Decentralized PKI: Hyperledger Indy
 - Related SDGs: SDG 1 – No Poverty, SDG 3 – Good Health and Well-Being, SDG 4 – Quality Education, SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation, and Infrastructure, SDG 10 – Reduced Inequalities, SDG 16 – Peace, Justice, and Strong Institutions, SDG 17 – Partnerships for the Goals
 - Partners:
 - UN Partners: United Nations International Computing Centre (UNICC)
- Links and Multimedia:
 - Digital Certificate of Entitlement (DCE) - UNJSPF ([https://www.unjspf.org/for-clients/digital-certificate-of-entitlement/"\)\)](https://www.unjspf.org/for-clients/digital-certificate-of-entitlement/))

- [Retirees and Beneficiaries: the new Digital Certificate of Entitlement App is now live - UNJSPF](#)
- [The Certificate of Entitlement soon in digital format - watch the video - UNJSPF](#)
- Lessons Learned:
 - Ensuring that the DCE App performs the “biometric test/validation” only locally on the device (i.e., no transmission/storage of biometrics data outside the control of the user).
 - Inability to use biometric-based authentication mechanisms natively available in the Android/Apple devices (i.e., SW libraries exposing limited functionalities; Need to limit App access to extended biometrics information.
 - Different approaches between Apple and Android devices in capturing user’s face in 3D.
 - Challenging “environmental conditions” (i.e., low lighting; background “noise”), during biometric profile capturing.
 - Relatively limited availability of “modern/secure” devices (i.e., devices with HSM module) in the user population.
 - Communicating user-friendly instructions
- Contact information: Dino Cataldo DELL’ACCIO (dellaccio@un.org)

2. Related Sustainable Development Goals

SDGs 1, 3, 4, 5, 8, 9, 10, 16, 17

3. Relevant Links

<https://www.unjspf.org/newsroom/unjspf-digital-certificate-of-entitlement-wins-the-united-nations-secretary-general-award-for-innovation-and-sustainability>

Contact information: Dino Cataldo DELL’ACCIO (dellaccio@un.org).

United Nations Office for the Coordination of Humanitarian Affairs



1. Description of Activities on AI

- Project 1: HDX Signals – Alerting Humanitarians to Deteriorating Crises
- **Project Description:** Every day, new information is produced about dozens of humanitarian crises around the world, yet critical warning signs can often go unnoticed. Without clear and timely analysis, opportunities for intervention may be missed, delaying essential aid and increasing intervention costs as crises worsen. To tackle these challenges, OCHA's Centre for Humanitarian Data developed HDX Signals, a tool that provides the insights needed for rapid action in response to humanitarian crises. HDX Signals monitors key datasets and produces automated alerts, or 'signals', when significant negative changes occur in specific locations.

Launched publicly in June 2024, HDX Signals integrates advanced analysis and AI-powered summaries to provide actionable insights, enhancing resource allocation and response times. As of February 2025, HDX Signals covers 200 locations and six topics: agricultural hotspots, conflict events, displacement, food insecurity, market prices and severity of humanitarian crises. Already, it has proven valuable for organizations like the UN Central Emergency Response Fund (CERF), which used HDX Signals to inform allocations exceeding US\$46 million across seven countries, aiding 2 million people. Other organizations, including GOALPrime Nigeria and the International Rescue Committee (IRC), leverage HDX Signals to allocate funds, protect staff, and save lives.

- Project Type/Output: Software tool, Early Warning system
- Project Status: Ongoing
- Project Start Year: 2024
- Project Domain: Humanitarian crisis monitoring
- Data Source:
 - Agricultural hotspots - European Commission's Joint Research Centre
 - Conflict events - Armed Conflict Location & Event Data Project (ACLED)
 - Food insecurity - Integrated Food Security Phase Classification (IPC)
 - INFORM Severity - ACAPS
 - Internal displacement - Internal Displacement Monitoring Centre (IDMC)
 - Market monitoring - World Food Programme (WFP)
- Technology/Platform: Mainly developed in R, HDX Signals incorporates Generative AI, utilizing OpenAI's GPT-4o model to transform reports into concise summaries and key messages, saving time by processing material that would otherwise take hours to read. Automatic data updates are implemented based on GitHub actions.
- Related SDGs: SDG 2 – Zero Hunger, SDG 10 – Reduced Inequalities
- Partners:
 - ACAPS
 - Armed Conflict Location & Event Data Project - ACLED
 - European Commission's Joint Research Centre - JRC
 - Integrated Food Security Phase Classification - IPC

- Internal Displacement Monitoring Centre - IDMC
- World Food Programme - WFP
- Links and Multimedia:
 - HDX Signals website: <https://data.humdata.org/signals>
 - Impact story on HDX Signals: <https://centre.humdata.org/hdx-signals-alerting-humanitarians-to-deteriorating-crises/>
- Lessons Learned:
 - Early detection of emerging crises faces several barriers, including difficulty in identifying worsening conditions within broader emergencies, managing overwhelming quantities of data, and the need for time- and resource-sensitive analysis. HDX Signals addresses these challenges by bridging the gap between data and actionable insights, allowing for timely humanitarian responses. AI can significantly increase access to insights from data for a broader, non-technical audience, democratizing the use of complex data analyses. Additionally, simple thresholds for warnings and actionable insights have proven to be very effective in guiding timely interventions and resource allocation in humanitarian contexts.
- Contact information: Leonardo Milano (leonardo.milano@un.org)

Project 2: AI based content classification service

- **Project Description:** Manually analyzing a large volume of text data can be a tedious and time-consuming task. By leveraging Azure Open AI service, the process becomes significantly more efficient. The service, built using Microsoft Power Platform, enables end-users to feed in text snippets or excel spreadsheets, receiving categorized content in return. This versatile service can be configured to analyze diverse content types, including news snippets, project descriptions, social media posts, or budgetary spreadsheets.

One notable application involves the Climate Team at OCHA, utilizing the service to analyze historical data within OCHA-administered Country-based Pooled Funds. Project summaries are input into the service, allowing the discernment of activities specifically relevant to climate adaptation. This enhances OCHA's ability to optimize the effectiveness and impact of these initiatives in the future.

Additionally, the Digital Services section at OCHA employs the service to analyze Internet or Cyber Security incidents, categorizing them into types such as Internet Outage and Data Breach. Leveraging Microsoft Power Automate Flow for real-time classification, the data feeds directly into a Power BI dashboard used for monitoring purposes.

We are also exploring applications such as automatically sifting through social media postings to identify those most relevant to humanitarian work.
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Humanitarian Information
- Data Source: The service is generic and can be applied to any context.
- Technology/Platform: Microsoft Azure Open AI, Microsoft Power Platform
- Related SDGs: SDG 13 – Climate Action
- Lessons Learned: We aim to test the service with diverse content types to comprehensively understand its limitations. In our experience, when utilizing the service to identify climate adaptation activities, we encountered instances where the AI generated new categories despite explicit prompts to the contrary. To address this, we plan to explore the application of fine-tuned models for specific variations. Engaging in more diverse applications will

undoubtedly contribute to a deeper understanding of the service's capabilities and areas for improvement.

- Contact information: Ikramullah Quraishi (ikramullah.quraishi@un.org), Ranu Gupta (guptar@un.org)

Project 3: Automated tagging of ReliefWeb content

- Project Description: Leverage a Large Language Model to automatically apply certain categories to content being posted to ReliefWeb - <https://reliefweb.int/>. The intention is to reduce human efforts in areas that where AI can provide a suitable solution thereby allowing our human capacity to focus on more impactful activities.
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025+
- Project Domain: Automatic tagging of humanitarian content being posted on ReliefWeb
- Data Source: Reports and job descriptions are provided by various humanitarian and development entities – either through an automated feed, by email, or by self-posting. We are using LLM without any fine-tuning as we have found the results to be more than sufficient 'as is'.
- Technology/Platform: LLM is AWS Nova, Website is Drupal
- Lessons Learned: Over-engineering is an easy trap to fall into. In our case, we were able to back away from advanced work and costs (e.g. fine-tuning, dedicated services running at all times) when we simply tested the LLM directly and found the results to be satisfactory.
- Contact information: Andrej Verity (verity@un.org)

Project 4: Ask ReliefWeb Q&A Chatbot

- Project Description: The Ask ReliefWeb Q&A Chatbot allows a site visitor to ask questions about the (single) report page that they are viewing. On average, a single report had an attached file of approximately 17 pages. The Q&A Chatbot retrieves answers from that material.
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2024+
- Project Domain: Humanitarian Information
- Data Source: Reports stored on ReliefWeb. Link to data: <https://reliefweb.int/updates>
- Technology/Platform: AWS Nova, AWS Bedrock, Drupal
- Partners:
 - Private Sector: Amazon AWS
- Lessons Learned: Trying to provide a Q&A (RAG) across many documents was challenging when users knew the content extremely well – as they did not find the results very usual (e.g. missing specific details or nuance). Focusing on a single report reduces that challenge and thus us time to gather feedback, better understand the technology and investigate how to expand/grow the solution.
- Contact information: Andrej Verity (verity@un.org)

Project 5: United Nations' Central Emergency Response Fund (CERF) AI project summarization tool

- **Project Description:** We've developed an AI summarization tool using Microsoft Azure OpenAI for the United Nations' Central Emergency Response Fund (CERF). This tool efficiently processes Microsoft Word project proposals, extracting relevant information from various sections to generate a three-sentence project summary. The summary serves dual purposes: it's publicly available on the CERF website, and it's submitted to OCHA management (including the OCHA USG) for project approval. Traditionally, CERF program officers manually crafted these summaries, which consumed approximately 5 minutes each. Our tool, however, produces accurate summaries within seconds. Given the volume of over 500 CERF projects annually, this tool stands to save more than 40 hours of staff time per year—a significant efficiency gain.
- **Project Type/Output:** Software tool
- **Project Status:** Completed
- **Project Start Year:** 2023
- **Project End Year:** 2023
- **Project Domain:** Humanitarian Financing
- **Data Source:** Project objective data, project activity data, targeted beneficiary data (disaggregated by sex, age and persons with disabilities)
- **Technology/Platform:** Microsoft Azure OpenAI
- **Lessons Learned:** We learned that creating an AI tool can take several iterations. The CERF AI project summarization tool required several attempts to create the prompt that would produce the project summarizations in the correct format. In the future, we plan to expand the suite of summarization tools which will include an application summarization tool and a reports summarization tool which are all currently manually written.
- **Contact information:** Samir Mahmoud (mahmoud14@un.org)

Project 6: OCHA ROWCA AI Project on Threats, Menaces, and Negative Messaging in West and Central Africa

In collaboration with bona fide researchers from University of South California and University of Edinburgh and experts in machine learning and AI language processing, ROWCA is attempting to establish mechanisms to automatically extract negative messaging and threats in multiple local languages from social media posts using NLP and AI techniques. This could trigger alerts and help identify where humanitarians are doing a good job and where to focus advocacy messages with affected populations.

The project is ongoing and still faces challenges such as the lack of a comprehensive library of locally spoken languages, AI-related libraries to match the wording, and difficulties in data access (especially for TikTok).

Summary:

The West and Central Africa humanitarian context is deteriorating year by year where humanitarian partners (e.g. UN OCHA) are losing access to severely affected areas, making it increasingly difficult to deliver aid to vulnerable populations. One challenge hindering humanitarians' ability to assist these populations is the spread of misinformation about humanitarian efforts, particularly on social media, among vulnerable communities. Whereas a deeper understanding of public perceptions towards humanitarian aid could help humanitarian organizations engage with vulnerable communities in more effective ways, it's challenging to

monitor social media posts at a large scale. We want to characterize public perceptions towards humanitarian aid on TikTok and build a tool that identifies potential targeting of humanitarian activities. We hope our tool will assist organizations in effective decision-making and improved guidance for Access Working Groups.

Research design:

We aim to identify opinions expressed towards humanitarian aid initiatives on social media, along with explanations of these opinions grounded in the content of the particular social media post. To collect data, we will use keywords and phrases related to opinions on humanitarian aid to retrieve TikTok data. For example, phrases such as “aid workers out” and “don’t trust them” which express negative opinions of humanitarian aid initiatives. We will use these keyphrases translated into multiple languages (e.g., French, Arabic) since humanitarian aid is typically dispersed in multilingual communities. Then we will use the data to identify opinions and opinion targets expressed in the data.

Contact: Mamadou Abdallah KA <mamadou.abdallahka@un.org>; Ibrahima Kane <ibrahima.kane@un.org>; Roberto Colombo Llimona <colombor@un.org>

Project 7: OCHA ROWCA AI Chatbot with DAVIS Platform Data

This project aims to identify the potential of having a chatbot that can answer questions based on all data collected by the Data Aggregation and Visualization Service (DAVIS at <https://davis.rowca.unocha.org/>). The project is currently in the design phase and undergoing a pivot with subsets of information to leverage the capacity. Other sources of generative AI might also be used in the future.

Contact: Mamadou Abdallah KA <mamadou.abdallahka@un.org>; Ibrahima Kane <ibrahima.kane@un.org>; Roberto Colombo Llimona <colombor@un.org>

2. Related Sustainable Development Goals

SDGs 10, 13, 17

3. Relevant Links

<https://www.unocha.org/>

Contact information: Andrej Verity (verity@un.org)

United Nations Office of Counter Terrorism



**United
Nations**

Office of Counter-Terrorism

1. Description of Activities on AI

Project 1: UNOCT's Global Programme on Preventing and Countering Violent Extremism, the "Artificial Intelligence (AI) and Preventing and Countering Violent Extremism"

- Project Description: UNOCT's Global Programme on Preventing and Countering Violent Extremism, the "Artificial Intelligence (AI) and Preventing and Countering Violent Extremism" project seeks to enhance awareness, understanding, and capacity among Member States, PCVE practitioners, policymakers, and programme managers on the intersection of AI and PCVE. Through comprehensive mapping, consultations, and the development of a Practice Guide, the project will provide stakeholders with accessible information and actionable insights. A 'Train the Trainer' curriculum will further equip practitioners to disseminate knowledge and foster peer-to-peer learning. By combining knowledge-sharing, training, and stakeholder engagement, the initiative aims to advance the integration of AI into effective PCVE strategies and programming.
- Project updates: N/A
- Department/Division: UNOCT/UNCCT Pillar I PCVE
- Project Type/Output: N/A
- Project Status: Ongoing
- Project Start Year: 2025
- Project End Year: 2025
- Project Domain: AI and PCVE
- Related Sustainable Development Goals (SDGs): SDG 16
- Partnership(s)/Collaborator(s): National authorities and regional organizations representatives; PCVE practitioners and field experts such as frontline PCVE practitioners and strategic communications experts; Research and innovation entities, such as academics and researchers, think tanks and technology companies.
- Relevant Links and Multimedia: N/A
- Lesson Learned: N/A
- Challenges: N/A
- Lessons learned: N/A
- Future work: N/A
- Contact Information: lilian.vicente@un.org

Project 2: CT TECH+

- Project Description: The CT TECH+ initiative is funded by the European Union and jointly implemented by UNOCT and INTERPOL. CT TECH+ supports Member States in strengthening their capacities to counter the use of new and emerging technologies for terrorist purposes, in full compliance with international human rights law. The AI stream of work under the initiative aims to explore the dual-use nature of AI in the context of terrorism, enhancing Member States' capacities to prevent and respond to the

malicious use of AI by terrorist actors. The initiative delivers awareness-raising workshops, and technical assistance to guide the ethical, human rights-compliant adoption of AI technologies for counter-terrorism purposes. It includes identifying use cases for responsible AI deployment in law enforcement.

- Project updates: The initiative started in 2024, with activities planned over a two-year period.
- Department/Division: United Nations Counter-Terrorism Centre (UNCCT) of the UN Office of Counter Terrorism (UNOCT), Global Counter-Terrorism Programme on Cybersecurity and New Technologies
- Project Type/Output: Publications on policy guidance, law enforcement capabilities guidebook, and tabletop exercises on the adoption of AI in counter-terrorism.
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2026
- Project Domain: Artificial Intelligence, Counter-Terrorism, New Technologies, Digital Threats
- Related Sustainable Development Goals (SDGs): SDG 16
- Partnership(s)/Collaborator(s) :
- INTERPOL
- UNICRI
- Relevant Links and Multimedia:

<https://www.un.org/counterterrorism/ct-tech-plus-initiative>

- Lesson Learned: AI is evolving faster than policy frameworks, requiring adaptive, anticipatory governance models. Early engagement with law enforcement stakeholders is essential to bridge technical capacity gaps and ensure human-rights-based approaches.
- Challenges:
 - Limited technical expertise among national Counter Terrorism entities on AI threats
 - Lack of normative clarity on responsible AI use in Counter Terrorism
 - Fast-evolving nature of generative AI outpacing regulatory responses
- Future work:
 - Develop a practical toolkit on AI risk mitigation for Counter Terrorism agencies
 - Expand regional workshops on AI threat awareness
- Contact Information: Balques Al Radwan (balques.alradwan@un.org)

2. Related Sustainable Development Goals

SDG 16

3. Relevant Links

<https://www.un.org/counterterrorism/cct/programme-projects/cybersecurity>

- Contact Information: Akvile Giniotiene (akvile.giniotiene@un.org), Balques Al Radwan (balques.alradwan@un.org)

United Nations Office for Disarmament Affairs



United Nations

**Office for
Disarmament Affairs**

1. Description of Activities on AI

Project 1: CCW Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems

- **Project Description:** The Office for Disarmament Affairs (ODA) supports the work of the Convention on Certain Conventional Weapons (CCW) Group of Governmental Experts on emerging technologies in the area of lethal autonomous weapons systems (LAWS). The Group has affirmed eleven guiding principles to guide its work, covering, inter alia, the applicability of international humanitarian law, the retention of human responsibility and that human-machine interaction should ensure LAWS are used in compliance with international law. The 2024 Meeting of High Contracting Parties to the CCW recalled the mandate of the Group, which was renewed by the 2023 Meeting of High Contracting Parties to the CCW. The Group has a three-years mandate (2023-2026) to further consider and formulate a set of elements of an instrument and other possible measures to address emerging technologies in the area of LAWS.
- **Project Type/Output:** Intergovernmental Meeting
- **Project Status:** Ongoing
- **Project Domain:** Peace and security, legal, humanitarian
- **Related Sustainable Development Goals (SDGs):** SDG 16 –Peace, Justice, and Strong Institutions
- **Relevant Links and Multimedia:** <https://meetings.unoda.org/ccw/convention-on-certain-conventional-weapons-group-of-governmental-experts-on-lethal-autonomous-weapons-systems-2025>
- **Contact Information:** Jeroen Klok (jeroen.klok@un.org), Sophie Guillermin-Golet (sophie.guillermin-golet@un.org), and Juliana Helou van der Berg (juliana.helou@un.org)

Project 2: Report of the Secretary-General on Developments in Science and Technology and their Potential Impact on International Security and Disarmament Efforts

- **Project Description:** As requested by United Nations General Assembly resolution 78/22, the United Nations Secretary-General reported to the 79th session of the General Assembly on current developments in science and technology and their potential impact on international security and disarmament efforts, including on developments related to AI. This report has been issued as [A/79/224](#).
- **Project Type/Output:** Report
- **Project Status:** Ongoing
- **Project Domain:** Peace and security
- **Related Sustainable Development Goals (SDGs):** 16 – PEACE, JUSTICE, AND STRONG INSTITUTIONS
- **Relevant Links and Multimedia:** <https://www.un.org/disarmament/topics/scienceandtechnology/>
- **Contact Information:** Rene Holbach (holbach@un.org) ; Beyza Unal (beyza.unal@un.org)

Project 3: Responsible Innovation in AI for Peace and Security

- **Project Description:** The Office for Disarmament Affairs (ODA) and the Stockholm International Peace Research Institute (SIPRI) have partnered for a three-year initiative on responsible innovation in artificial intelligence (AI) for peace and security. This project, which is funded by a decision of the Council of the European Union (Council Decision (CFSP) 2022/2269 of 18 November 2022), aims to support greater engagement from the civilian AI community in mitigating the risks that the misuse of civilian AI technology can pose to international peace and security. Combining awareness raising and capacity building activities, it seeks to provide the civilian AI community – especially the next generation of AI practitioners – with the necessary knowledge and means to engage in responsible innovation and help ensure the peaceful application of civilian AI technology. The project covers three work packages that:
 - engage with students – introduce selected Science, Technology, Engineering and Mathematics (STEM) students from around the world to how the peace and security risks posed by the diversion and misuse of civilian AI development by irresponsible actors may be identified, prevented or mitigated in the research and innovation process or through other governance processes. This through a number of channels including a series of international in-person workshops that centre a diverse group of young practitioners from around the world;
 - engage with the AI industry – work with practitioners in industry, as well as professional associations and standards bodies like the Institute of Electrical and Electronics Engineers (IEEE) to i) disseminate tailored education materials and engagement activities to technical professionals; ii) support positive uses of AI for peace and security; and iii) facilitate dialogue and information sharing between experts from academia, the private sector and government on how the risk of the diversion and misuse of civilian AI research and innovation by irresponsible actors can be mitigated; and
 - engage with educators– work with selected educators and developers of academic curricula on the development and promotion of educational materials that can be used to mainstream consideration of the peace and security risks that flow from the diversion and misuse of civilian AI research and innovation by irresponsible actors in the training of future AI practitioners (e.g. in courses on AI ethics and responsible innovation).

Such an approach allows the project to reach the AI community at all levels, including not only current practitioners but also future generations. It also enables engagement across academic, industry and other silos, and supports the sustainability of future efforts by establishing networks that cross these boundaries. Over 2024 the project carried out a series of in-person regional capacity building workshops aimed at connecting risk management practices with international peace and security issues for young AI practitioners from around the world, a series of podcasts with leading AI, robotics and autonomy experts, a blog series for diverse perspectives on dealing with the risks presented by the misuses of civilian AI, and a series of multi-stakeholder dialogues bringing together interested actors from across the AI life-cycle. It also offered a series of briefings, external publications, and a discussion side-event for the First Committee. In addition to SDGs 4, 5 and 16, the project responds to action 28 of the Secretary-General's Disarmament Agenda.

- **Project Type/Output:** Capacity building and Outreach
- **Project Status:** Ongoing
- **Project Domain:** Peace and security
- **Related Sustainable Development Goals (SDGs):** SDG 4 – Quality Education; SDG 5 – Gender Equality; SDG 16 – Peace, Justice, and Strong Institutions.
- **Partnership(s)/Collaborator(s):** Stockholm International Peace Research Institute (SIPRI), Federal University of Rio Grande do Sul, Malmö University New York University, Sorbonne

University, Tallinn University of Technology Umeå University, Institute of Electrical and Electronics Engineers (IEEE) (made possible thanks to generous support from the European Union)

- Relevant Links and Multimedia: <https://disarmament.unoda.org/responsible-innovation-ai/about>
- Contact Information: Charles Ovink (charles.ovink@un.org)

Project 4: Outreach on Autonomous Weapons and Artificial Intelligence

- Project Description: The Secretary-General, the High Representative and Under-Secretary-General for Disarmament Affairs and other ODA officials have sought to raise awareness of the possible implications of autonomous weapons and the weaponization of artificial intelligence.
- Project Type/Output: Outreach
- Project Status: Ongoing
- Project Domain: Peace and security
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions.
- Relevant Links and Multimedia: <https://www.un.org/disarmament/hrstatement/>
- Contact Information: Beyza Unal (beyza.unal@un.org), Charles Ovink (charles.ovink@un.org), René Holbach (holbach@un.org), Jeroen Klok (jeroen.klok@un.org), Sophie Guillermin-Golet (sophie.guillermin-golet@un.org), Juliana Helou van der Berg (juliana.helou@un.org),

Project 5: Military AI, Peace & Security (MAPS) Dialogues

- Project Description: UNODA is convening three multistakeholder exchanges to advance international discussions on the implications of artificial intelligence (AI) in the military domain for international peace and security. In response to General Assembly resolution 79/239, the project aims to facilitate knowledge-sharing and raise awareness through a series of structured exchanges. It will explore the opportunities and risks posed by military AI, including its impact on compliance with international law, the risks of miscalculation and escalation, and the challenges of ensuring accountability and trustworthiness. The initiative will also examine capacity-building efforts and international cooperation to address disparities in AI governance and responsible development. A dedicated in-person meeting in Geneva will take stock of existing and emerging normative proposals, providing a platform for States and stakeholders to contribute to the evolving multilateral dialogue on AI in military applications. These discussions will support States in maturing their submissions to the Secretary-General's report to the General Assembly on the topic.
- Project Type/Output: Multilateral exchange
- Project Status: Ongoing
- Project Domain: Peace and Security
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice and Strong Institutions
- Relevant Links and Multimedia: None
- Contact Information: Ulysse Richard (ulysse.richard1@un.org); Rene Holbach (holbach@un.org)

Project 6: Report of the Secretary-General on artificial intelligence in the military domain and its implications for international peace and security

- Project Description: As requested by United Nations General Assembly resolution 79/239, the Secretary-General will report to the 80th session of the General Assembly on the

opportunities and challenges posed to international peace and security by the application of artificial intelligence in the military domain, with specific focus on areas other than lethal autonomous weapons systems, based on the views of Member States and observer States. international and regional organizations, the International Committee of the Red Cross, civil society, the scientific community and industry will also be invited to submit views for inclusion in the annex to the report.

- Project Type/Output: Report
- Project Status: Ongoing
- Project Domain: Peace and security
- Related Sustainable Development Goals (SDGs): 16 – PEACE, JUSTICE, AND STRONG INSTITUTIONS
- Relevant Links and Multimedia: (none)
- Contact Information: Rene Holbach (holbach@un.org)

Project 7: Sci-fAI Futures Youth Challenge

- Project Description: With support from the Government of the Republic of Korea, Youth4Disarmament launched the Sci-fAI Futures Youth Challenge in May 2024. This creative science-fiction storytelling challenge engaged young people to explore the risks and opportunities of artificial intelligence (AI) and its implications for peace and security. Applicants aged 13 to 29 were invited to submit written or comic-style stories set in the year 2145, imagining a fictional world where militaries have integrated AI into their operations. Participants explored how AI could influence armed conflicts, interact with other emerging technologies, and potentially be leveraged positively in the military domain
- Project Type/Output: Capacity-Building and Outreach
- Project Status: Closed
- Project Domain: Peace and Security
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice and Strong Institutions, SDG 17 – Partnerships for the goals
- Relevant Links and Multimedia: <https://www.youth4disarmament.org/sci-fai-futures-youth-challenge>
- Contact Information: Ulysse Richard (ulyse.richard1@un.org), Soo Hyun Kim (kim12@un.org)

2. Related Sustainable Development Goals

SDG 4, 5, 16

3. Related Links

<https://www.un.org/disarmament/>

Contact Information

Beyza Unal (beyza.unal@un.org), Charles Ovink (charles.ovink@un.org), René Holbach (holbach@un.org), Jeroen Klok (jeroen.klok@un.org), Sophie Guillermin-Golet (sophie.guillermin-golet@un.org), Juliana Helou van der Berg (juliana.helou@un.org)

United Nations Office on Drugs and Crime



1. Description of Activities on AI

Project 1: Improving the monitoring of illicit crop cultivation and drug production by using artificial intelligence

- Project Description: Jointly with the main drug-growing countries in the world - Colombia, Peru and the Plurinational State of Bolivia for coca, Afghanistan, Lao PDR, Mexico and Myanmar for opium - the UNODC Illicit Crop Monitoring Programme (ICMP) uses GIS and geospatial analysis, satellite imagery and field surveys to monitor the extent and evolution of illicit crop cultivation and production, as well as the factors driving illicit cultivation. The crop and socio-economic surveys help Governments in their policy development and in planning how to tackle illicit drug production.

UNODC cooperates with external partners from academia and other research entities to continuously improve and develop the methods used in the surveys.

The present project seeks to research and eventually apply (semi-) automated methods such as deep learning and big data analysis for improving area estimates for illicit crop cultivation, more specifically the identification of illicit crops and spatial information on potential agricultural land and potential risk areas. Moreover, research is conducted on spectral based yield information, and the early detection of illegal landing runways applying AI techniques. In the Amazon rainforest, illegally built runways facilitate drug trafficking and harm the environment.

- Department/Division (if applicable):
- Project Type/Output: Software tool
- Project Status: Ongoing: Pilot activities have been conducted.
- Project Start Year: 2021
- Project End Year: 2025
- Project Domain: Agriculture and land use (Plant based illicit drug production, such as the cultivation of opium poppy and coca bush)
- Data Source: Satellite data
- Publicly Available Data: No
- Related Sustainable Development Goals (SDGs): SDG 16 – Peace, Justice, and Strong Institutions
- Partnership(s)/Collaborator(s): University of Salzburg Austria, Digital FAO and Agro-Informatics Division (CSI); Cranfield University, UK; University of Maryland, U.S.
- Contact information: Lorenzo Vita (Lorenzo.vita@un.org)

Project 2: Drugs Monitoring Platform

- Project Description: The UNODC Drugs Monitoring Platform (DMP) is a unique geo-coded system that brings together information for collecting, visualising, and sharing

drug seizure data aimed at providing access to near real-time data and insights on drug trafficking trends. It delivers data using interactive analytical visualisations adapted to user-specific needs to improve drug threat identification for law enforcement and analysts. The platform translates qualitative information on individual seizure cases into event-based data records where single seizures are geolocated and described with standardized variables, easy to use for analysis of trafficking patterns and improved understanding of illicit drug markets. The Platform relies on the integration of multi-sourced datasets stemming from data officially reported to UNODC by Member States and open data and information from cooperating partners. The DMP provides geographical insight on current drug trafficking trends, with approximately 1,800,000 geo-coded drug seizure data points obtained from countries around the world, with an increase rate of 40% in the last couple of years (with over one million data points in the last year alone). The platform has also been used to successfully pilot and host the mapping of illicit trafficking of tobacco, firearms and potentially crimes that affect the environment.

More than ever, there is a critical need to enhance capacities to produce rapid pictures of threats related to drug trafficking and build better analytical pictures to guide operational responses and support the development of evidence-based policy. One component of the DMP project aims to collect and enhance capacities to collect near real-time information through targeted text mining/text analytics applied to data harvested from the internet. Automation is critical for analysing text-based data efficiently to address the vast quantity of unstructured data that is generated on a daily basis. For UNODC to process large quantities of critical information 'harvested' in the form of external content, a combination of Artificial Intelligence (AI) procedures centred around Machine Learning modelling, the streamlining of data ETL (extract, transform, load) processes together with the implementation of MLOps have been deployed to ensure the delivery of over 18,000 real-time drugs quantitative data points annually from more than 50,000 articles scraped from different vetted sources. A series of nearly 20 analytical dashboards were launched to enhance the DMP user experience and optimise Platform geospatial content.

- Project Type/Output: Report, Dataset, Software and data modeling tools, analytical briefs and dashboards, training.
- Department/Division: Division for Policy Analysis and Public Affairs (DPA), Research and Trend Analysis Branch (RAB)
- AI Approach: Models based on transformers architecture
- Project Status: Ongoing
- Project Start Year: October 2019
- Project End Year: May 2025 (TBC)
- Project Domain: Drug Trafficking trends and other trafficking flows
- Data Source: webscraped open data on individual drug seizure events from media sites and official government websites. The use of information from select social media sources. Integration of multi-sourced datasets requiring rigorous deduplication and quality control procedures for the production of high quality, comprehensive and comparable data.
- Publicly Available Data: Yes (public environment within the Platform containing a subset of Individual Drug Seizure (IDS) data. All other seizure data content is housed within a closed environment requiring login credentials). Additional public content includes information related to drug cultivation and production in select countries.
- Technology/Platform: Python (transformers, spacy), Microsoft Azure Cognitive Services and other functions, PowerBI, MLOps, CosmosDB.
- Partnership(s)/Collaborator(s)(s):
- Links and Multimedia: dmp.unodc.org
- Contact information: Francesca Massanello (Francesca.massanello@un.org)

Project 3: Earth Observation and Open Source Intelligence for drugs and crime analysis

- Project Description: UNODC collaborates with a consortium comprising European Space Agency, e-GEOS, GAF (1st phase), Janes, Hensoldt and VITO (2nd phase). The partnership (EO4SECURITY) focuses on developing services for UNODC to investigate environmental crimes and illicit trafficking utilizing Earth Observation and Open-Source Intelligence (OSINT) data and AI processing techniques. OSINT and Large Language Models (LLMs) are leveraged to “web scrape” traditional and social media to retrieve information about the convergence of criminal activities in specific areas. After a successful conclusion of the first phase with applications in the Mekong region (illegal drug trafficking and scam cities) and Brazil (illegal deforestation and gold mining). The project was extended until 2026 focusing on Peru.
- Department/Division: Division for Policy Analysis and Public Affairs (DPA) , Research and Trend Analysis Branch (RAB)
- Project Type/Output: Analytical reports, maps, tools, methods and trainings
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2026
- Project Domain: Drugs and crime
- Data Source: Open-source data and satellite images from various sensors, including Synthetic-Aperture Radar.
- Data Publicly Available: yes/no, open-source data and commercial satellite imagery.
- Technology/Platform: various
- Partnership(s)/Collaborator(s)(s):
 - International organisation: European Space Agency
 - Private Sector: e-geos, GAF, Janes,Hensoldt, VITO
- Relevant Links and Multimedia:

[EO4Security: from Space, an aid against Environmental Crimes - e-GEOS](#)

- Contact Information: Coen Bussink (coen.bussink@un.org)

Project 4: Pilot Study to Improve Data Collection on Illegal Fishing

- Project Description: The pilot project seeks to improve the data and knowledge related to incidents of illegal fishing across the world. The objective was to use innovative techniques to identify and collect new data.
- Department/Division: Division for Policy Analysis and Public Affairs (DPA), Research and Trend Analysis Branch (RAB)
- Project Type/Output: New dataset and research brief
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2025
- Project Domain: Crimes that affect the Environment (including wildlife)
- Data Source: Open-source data and court cases. Generative AI’s deep research capabilities used to identify and expand the range of relevant data sources. This process helped UNODC to uncover non-traditional and hard-to-reach databases that did not surface through standard desk research. AI-assisted tools were used to verify and adapt to the varying structures of web pages, ensuring the web scraping process remains robust despite differences in page layouts and metadata formats across sites.

- Data Publicly Available: yes
- Technology/Platform: Application of Large Language Models (LLMs) to process and interpret complex legal documents in different languages, enabling the extraction of key insights, structured data points, and nuanced relationships embedded in unstructured legal text. AI assisted the strengthening of non-AI methods deployed for research purposes. For example, generating labels for human review and finetuning domain-specific knowledge that was not covered by common models. AI was also useful when dealing with typical problems in extracting and standardizing dates, quantities, and locations from text.
- Partnership(s)/Collaborator(s)(s): FAO
- Relevant Links and Multimedia: None
- Contact Information: Tanya Wyatt (tanya.wyatt@un.org)

2. Related Sustainable Development Goals

SDG 3, 14 16

3. Relevant Links

<https://www.unodc.org/>

Contact Information

Angela Me (angela.me@un.org), Anja Korenblik (anja.korenblik@un.org)

United Nations Office for Digital and Emerging Technologies



United Nations

Office for Digital and Emerging Technologies

1. Description of Activities on AI

Project 1: Secretary-General's High Level Advisory Body on AI

- As part of the follow-up to the Secretary General's Roadmap for Digital Cooperation, issued on June 11, 2020, the Office of the Secretary-Generals' Envoy on Technology coordinated the implementation of the Secretary-General's proposal to establish a multi-stakeholder advisory body on global artificial intelligence cooperation. The body provided guidance on artificial intelligence that was trustworthy, human-rights based, safe and sustainable, and promoted peace. In September 2024, the Advisory Body released its final report titled "Governing AI for Humanity," which built on months of work, including extensive global consultations, and the publication of an interim report in December 2023. The advisory body brought together experts from diverse backgrounds and disciplines from around the world to address issues around inclusion, coordination, and capacity-building by sharing and promoting best practices, as well as exchanging views on artificial intelligence standardization and compliance efforts.
- Project Type/Output: Policy Framework (Final report "Governing AI for Humanity" released in September 2024) SDG Knowledge HubUnited Nations
- Project Status: Final report completed and released (September 19, 2024) SDG Knowledge HubUnited Nations
- Project Start Year: Initially proposed in 2020 as part of the Secretary-General's Roadmap for Digital Cooperation (released June 11, 2020) DiploSDG Knowledge Hub, with the Advisory Body formally established on October 26, 2023 UnUnited Nations
- Project Domain: All Project Domains, as part of overall effort to strengthen governance of AI
- Data Source: Various.
- Related Sustainable Development Goals (SDGs): The Advisory Body's work related to all SDGs, as it was tasked with making recommendations on how to leverage AI to accelerate the delivery of the SDGs by 2030
- Partnership(s)/Collaborator(s):
 - UN Partners: Various, including coordination with the Secretary-General's Scientific Advisory Board and support for preparations for the 2024 Summit of the Future
 - Private Sector: Various, including representatives from technology companies, in their personal capacity, such as Microsoft, OpenAI, Google-Alphabet, and Sony
 - Civil Society: Various like Patrick J. McGovern Foundation, Digital Rights Foundation or Mozilla Foundation
 - Academia: Various, including professors and researchers from institutions around the world such as ETH Zurich, University of Helsinki, University of Tokyo, and Chinese Academy of Sciences United Nations
- Links:
 - <https://www.un.org/techenvoy/content/artificial-intelligence>
 - <https://www.un.org/en/ai-advisory-body>

Project 2: OSET-led Engagements on AI during the Summit of the Future and High-Level Week

- As part of the coordinated UN-wide effort to advance global digital cooperation and AI governance, the Office of the Secretary-General's Envoy on Technology (OSET) led and co-organized a series of strategic engagements during the High-Level Week and the Action Day of the 2024 Summit of the Future. These activities were designed to amplify the release of the final report of the Secretary-General's High-Level Advisory Body on AI, Governing AI for Humanity, and to operationalize key digital governance outcomes from the Global Digital Compact.

OSET activities included the following:

- High-Level Panel "AI for Humanity: Translating Principles into Action": Held on September 21, 2024, during the Action Day, this flagship event convened ministers, tech executives, civil society leaders, and scientists to explore actionable pathways for inclusive and interoperable AI governance.
- Launch Event of the Final Report of the AI Advisory Body: Organized in the Trusteeship Council Chamber on September 19, 2024, this event marked the public release of the Governing AI for Humanity report and featured remarks by the Secretary-General, the Envoy on Technology, and co-chairs of the Advisory Body.
- Expert Roundtables and Bilaterals: OSET facilitated closed-door discussions among Member States, international organizations, and AI developers on implementation strategies for the Global Digital Compact, including pathways to develop capacity in low- and middle-income countries.
- Multistakeholder Dialogue: Throughout the week, OSET hosted a number of informal events at UN Headquarters with stakeholders to engage with the themes of the AI Advisory Body's report and discuss ideas for future coordination efforts.

These activities reinforced the UN's commitment to inclusive, rights-based, and globally coordinated approaches to AI, and helped initiate follow-up processes tied to the implementation of the Global Digital Compact and other summit outcomes.

- Project Type/Output: High-level events, multistakeholder dialogues, and launch of final policy report (Governing AI for Humanity)
- Project Status: Completed (September 2024)
- Project Start Year: Activities developed throughout 2024 as part of the lead-up to the Summit of the Future
- Project Domain: Digital Cooperation, AI Governance, Capacity-building
- Related Sustainable Development Goals (SDGs): SDG 16 (Peace, Justice and Strong Institutions), SDG 9 (Industry, Innovation and Infrastructure), SDG 17 (Partnerships for the Goals), and overarching impact across all SDGs via responsible AI deployment
- Partnership(s)/Collaborator(s):
- UN Partners: OHCHR, UNESCO, ITU, UNDP, and others involved in the Global Digital Compact and Summit of the Future
- Private Sector: Participation from Microsoft, OpenAI, Google, Sony, and other companies represented on the AI Advisory Body
- Civil Society: Contributions from organizations including Mozilla Foundation, Access Now, Digital Rights Foundation, and others
- Academia: Contributions from Oxford University, ETH Zurich, University of Tokyo, African Institute for Mathematical Sciences, and others
- International Organizations: The Organisation for Economic Co-operation and Development (OECD) collaborated with the UN to advance international AI governance. This partnership focuses on regular science- and evidence-based AI risk and opportunity assessments, leveraging both organizations' networks and ongoing work on AI policy and

governance to support member states and stakeholders in fostering a globally inclusive approach.

- Links:
 - <https://www.un.org/en/ai-advisory-body>
 - <https://www.un.org/techenvoy/action-day-summit-future>
 - <https://www.un.org/techenvoy/global-digital-compact>
 - <https://www.oecd.org/en/about/news/press-releases/2024/09/oecd-and-un-announce-next-steps-in-collaboration-on-artificial-intelligence.html>

2. Related Sustainable Development Goals

SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17

3. Relevant Links

<https://www.un.org/techenvoy/>

United Nations Office of Information and Communications Technology



United Nations

Office of Information and Communications Technology

1. Description of Activities on AI

OICT is supporting implementation of the following AI initiatives in the UN Secretariat.

Project 1: UN Policy and Practice, UN Knowledge Gateway - Knowledge Assistant

- Focal Point: UN Office of Information and Communications Technology (OICT)
 - Project Type/Output: Software tool
 - Project Status: Ongoing
 - Project Start Year: 2024
 - (Projected) End Year: 2025
- This AI-powered solution will streamline access to operational guidance from the UN Policy and Practice Database, the UN Knowledge Gateway by enabling users to ask natural language questions and receive relevant responses with source references, improving efficiency for thousands of global users. The initiative aims to simplify knowledge retrieval, enhance user experience, and optimize information management within the UN's knowledge framework.
- Domain: Other - UN policies and knowledge
 - Data Source: UN Knowledge Gateway and UN Policy and Practice Database
 - Data is publicly available: No
 - Technology/Platform: Microsoft Copilot Studio.
 - Related SDGs:
 - SDG 16 - Peace, Justice, and Strong Institutions
 - Partners: N/A
 - Links: N/A

Project 2: Counter-Terrorism Committee Executive Directorate (CTED) Knowledge Assistant

- Focal Point: Counter-Terrorism Committee Executive Directorate (CTED)
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2024
- (Projected) End Year: 2025
- Project Description: The CTED Knowledge Assistant is the UN Secretariat's first AI chatbot in production powered by Microsoft Copilot Studio and Microsoft Power Platform, developed by the Counter-Terrorism Committee Executive Directorate (CTED) in collaboration with OICT. The Assistant leverages generative AI to enhance CTED's operational efficiency by enabling natural language Q&A, research support, and content generation. It is built on publicly available CTED content, and it required low development costs, making it an accessible and scalable solution. The Assistant supports three core functionalities:

- Ask (Q&A): Users can ask questions in plain language and receive concise, citation-backed answers drawn from over two decades of CTED's publicly available knowledge base.
- Research: Staff can prompt the Assistant to conduct tailored research for specific audiences and formats.
- Generate Content: The Assistant supports content generation across a range of documents, producing outputs in an established style consistent with CTED's institutional practices.

Having completed the UN Secretariat AI governance lifecycle—including rigorous testing, risk assessments, and security reviews—the Assistant demonstrates a responsible approach to AI adoption. It showcases how generative AI can transform knowledge management and reliably support mission-critical operations across the UN.

- Domain: Other – Counter Terrorism
- Data Source: UN internal documents and public CTED website
 - Data is publicly available: Not the internal data, only the data from the public website.
 - Technology/Platform: Microsoft Power Platform, Copilot Studio.
- Related SDGs:
 - SDG 16 – Peace, Justice, and Strong Institutions
- Partners: OICT
- Links: N/A

Project 3: Office of Administration of Justice (OAJ) - Knowledge Assistant 'Juri'

- Focal Point: Office of Administration of Justice (OAJ)
- Project Type/Output: Software tool
- Project Status: Ongoing
- Project Start Year: 2024
- (Projected) End Year: 2025

OAJ developed an advanced AI-powered chatbot solution to enhance its digital interaction capabilities, addressing limitations in current chatbot frameworks which faced challenges when dealing with complex language specifics and navigating UN data effectively. The proposed AI system will significantly improve the user experience by providing rapid, efficient access to information across the OAJ web resources, reducing user frustration and search time. By offering quick, summarized explanations and direct links to relevant content, the AI service can replace current chatbot solutions with more accurate and responsive interactions.

This enhanced digital tool would not only streamline information retrieval but also positively influence users' perceptions of the UN's digital platforms and overall organizational effectiveness. By leveraging advanced generative AI technologies, the solution aims to create a more intelligent, context-aware, and user-friendly interaction experience across UN digital ecosystem. Juri provides information based on the OAJ data, in a concise and informative manner. Juri is built to answer questions related to Administration of Justice at the UN. The user base consists of all UN personnel globally, and public users. It's available via a web client.

- Key Features and Benefits:
 - Intuitive, tailored navigation of OAJs public-facing web resources.
 - Offers sophisticated natural language understanding beyond traditional chatbot frameworks.

- Allows the ability to measure performance aspects such as user satisfaction, response accuracy, and system efficiency, providing ongoing insights for continuous improvement of the AI solution.
- User Satisfaction Rate: Achieve increased positive user feedback comparing the AI chatbot's performance to previous solutions.
- Information Retrieval Efficiency: Reduce average user search time across the OAJ web platforms.
- Language Comprehension Accuracy: Demonstrate accuracy in understanding complex, nuanced user queries across OAJ web resources and linguistic contexts.
- Domain: Other - UN internal justice
- Data Source: Public OAJ website and CaseLaw portal
 - Data is publicly available: Yes at <https://www.un.org/en/internaljustice/oaj> and <https://www.un.org/internaljustice/oaj/en>
 - Technology/Platform: Microsoft Azure AI services, Copilot Studio.
- Related SDGs:
 - SDG 16 - Peace, Justice, and Strong Institutions
- Partners: OICT
- Links: N/A

2. Related Sustainable Development Goals

SDG 16

3. Relevant Links

<https://unite.un.org/>

United Nations Office for Outer Space Affairs



1. Description of Activities on AI

Project 1: Access to Space for All Initiative and Artificial Intelligence

- Project Description: Access to Space for All is a joint initiative of UNOOSA and space agencies, research institutions and industry to offer access to space research facilities, infrastructure and information with the aim of developing technical know-how, engineering processes and infrastructure in the areas of hypergravity and microgravity, satellite development and space exploration and promote international cooperation in the peaceful uses of outer space.

Space technologies, data and applications are key enablers for development, in the same way access to internet is an enabler. Access to Space for All provides access to information, educational resources, tools and research infrastructure and facilities thanks to international collaboration.

The partners of the Initiative are space agencies, research institutions and private companies.

In the framework of the Initiative, the Office organized a webinar covering the use of artificial intelligence applications for space technology development. It aimed at providing applicants to the Access to Space for All hands-on opportunities an overview of what technologies can be incorporated in their projects. The webinar covered hardware and software elements. The webinar had speakers from NVIDIA, IBM and the European Space Agency as well as UNOOSA staff. The Office plans to have a follow up of the webinar this year.

We have continued to work with NVIDIA on artificial intelligence matters and, as part of this cooperation, UNOOSA was invited to present Access to Space for All during the Graphics Processing Unit Technology Conference April 2021 (GTC April 2021).

The objective is to raise awareness about how artificial intelligence can be integrated in space-technology projects.

- Project Type/Output: Seminar/meeting
- Project Status: Ongoing
- Project Start Year: 2020
- Project Domain: Outer Space Technology
- Technology/Platform: Webinar conducted in MS Teams and GTC conducted in a separate platform.
- Related Sustainable Development Goals (SDGs): SDG 4 – Quality Education; SDG 9 – Industry, Innovation and Infrastructure; SDG 17 – Partnership for the Goals
- Partnership(s)/Collaborator(s)
 - Private Sector: Nvidia Corporation, International Business Machines (IBM)
 - Other: China Manned Space Agency, European Space Agency, German Aerospace Center, Japan Aerospace Exploration Agency, Center of Applied Space Technology and Microgravity, Keldysh Institute of Applied Mathematics (Russian Academy of

Science), Kyutech Institute of Technology, Airbus Defence and Space, Avio and Sierra Space.

- Relevant Links and Multimedia:
 - <https://www.unoosa.org/oosa/en/ourwork/access2space4all/index.html>
 - [Access to Space for All and Artificial Intelligence](#)
- Lessons Learned: There webinar was well attended and the participants were very much engaged, demonstrating the interest for the combination of these two topics.
- Contact Information: Jorge Del Rio Vera (jorge.delriovera@un.org)

Project 2: AI and Climate Action Curriculum

- Project Description: The project consists on the development of a curriculum module on the utilization of space-based datasets for the development of AI applications on climate action, targeting girls in developing countries.
- Project Type/Output: Curriculum module and capacity building implementation
- Project Status: Ongoing
- Project Start Year: 2020
- Project End Year: 2022
- Project Domain: Outer Space and Sustainable Development Goals (SDGs)
- Project Updates: A partnership with Technovation (<https://technovation.org/>)) was launched in 2021 and several webinars presenting the role of space activities for climate action were organized. Including a Diversity and Inclusion event during the International Joint Conference on Artificial Intelligence (IJCAI 2021).
- Related Sustainable Development Goals (SDGs): SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 6 - Clean Water and Sanitation; SDG 13 - Climate Action; SDG 15 - Life on Land; SDG 17 - Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - Civil Society: Technovation, implementing through which mentors and girls will use space data and tools to address the SDGs
- Relevant Links and Multimedia:
 - <https://technovation.org/>
 - <https://youtu.be/GbX5QgHQSEQ>
 - <https://www.technovation.org/news-events/ijcai-2021-tech-for-sustainable-development/>
- Lessons Learned: The work is in progress, working to attract women (age 8-18) to STEM careers through the incorporation of space related concepts in the curriculum that is run by Technovation each year. The use of satellite remote sensing data created excitement and engagement in the audiences that participated in the various events organized. The use of space data requires dedicated expertise and time is needed to incorporate the expertise and knowledge into an accessible curriculum.
- Contact Information: Jorge Del Rio Vera (jorge.delriovera@un.org)

Project 3: UN-SPIDER Knowledge Portal Tools

- Project Description: In its [resolution 61/110 of 14 December 2006](#) the United Nations General Assembly agreed to establish the "United Nations Platform for Space-based Information for Disaster Management and Emergency Response - UN-SPIDER" as a new United Nations programme, with the following mission statement: "Ensure that

all countries and international and regional organizations have access to and develop the capacity to use all types of space-based information to support the full disaster management cycle".

A number of initiatives in recent years have contributed in making space technologies available for humanitarian aid and emergency response. Yet, UN-SPIDER is the first to focus on the need to ensure access to and use of such technologies during all phases of the disaster management cycle, including the risk reduction phase which is crucial for reducing the losses of lives and property.

UN-SPIDER works in delivering resources for Member States to facilitate the acquisition and processing of space remote sensing data.

- Project Type/Output: Software tool
 - Project Status: Ongoing
 - Project Start Year: 2009
 - Project Domain: Agriculture, Environment, Weather, Space, Disaster Management, Emergency Response
 - Data Source:
 - Sentinels, Aqua/Terra, Landsat and other satellite data,
 - Composite data from other sources developed by the space community (drought indices like NDVI, etc).
 - Additional data, products and services established by the space and geospatial communities
 - See "Data Sources": <https://un-spider.org/links-and-resources/data-sources>
 - Data Publicly Available: Yes
 - Technology/Platform:
 - Python (Jupyter notebooks) and R Studio SNAP, EsriGIS, Quantum GIS, etc
 - Project Updates: Continuing the compilation of technical content on data sources, services and products developed by the space community to support disaster management efforts. Continuing to present information on activities carried out by the space and the disaster management communities and technical information on how space-based technologies contribute to efforts in all phases of the disaster management cycle. Continuing with the creation of step-by-step workflows in GIS software, Python (Jupyter notebooks) and R scripts to download, process and visualize Earth observation data for monitoring and assessing droughts, floods, mudslides, burn severity after forest fires
 - Related Sustainable Development Goals (SDGs): SDG 11 - Sustainable Cities and Communities; SDG 13 - Climate Action
 - Partnership(s)/Collaborator(s)(s):
 - Other: UN-SPIDER Regional Support Offices <https://www.un-spider.org/network/regional-support-offices>
 - Relevant Links and Multimedia: <https://www.un-spider.org/>
 - Lessons Learned: The goal of this project is to provide the knowledge, tools, information, and assessments in the hands of those who can action them for the disaster management cycle including emergency response.
- Since its launch at the end of 2009, it has been gaining recognition as a one-stop-shop:
- to acquire information on what can be done with space technologies to support efforts in all phases of the disaster management cycle, and on the mechanisms, products and services established by the space community to support efforts in all phases of the disaster management cycle,

- to gain access to data, information and products developed and made available by the space and geospatial communities, information on software packages and tools that can be used to process data and to generate relevant products or information,
- To gain access to step-by-step procedures developed in open software to process data to generate maps that are relevant in disaster management applications,
- To find information on upcoming training opportunities (virtual, presential, academic)
- Nearly a million visits to the tool on an annual basis in the last two years (2023 and 2024)
- Contact Information: Lorant Czarán (czaran@un.org) and Jumpei Takami (jumpei.takami@un.org)

Project 4: Tonga Disaster Preparedness Pilot Project

- Project Description: The Tonga Preparedness Pilot Project enhances disaster preparedness using remote sensing in Tonga and is a joint initiative by the UN-SPIDER and the Committee on Earth Observation Satellites (CEOS). The National Disaster Risk Management Office leads this initiative in Tonga and will utilize satellite imagery and advanced Earth observation technologies to enhance our disaster preparedness significantly.
- Project Type/Output: Earth Observation Data Platform Development for Disaster Risk Management, AI processing of satellite imagery, Report, Dataset, Software tools, etc.
- Project Status: Finished (1-year)
- Project Start Year: 2024
- Project Domain: Agriculture, Environment, Weather, Space, Disaster Management, Emergency Response
- Data Source:
 - Optical Satellite Data: Airbus (VHR 15cm), Planet (3-4m mosaics), Sentinel-2, Landsat series.
 - SAR Satellite Data: ALOS-2, Sentinel-1, CSK/CSG, Spacety, SAOCOM
 - Other Data: DEM (Airbus TerraSAR-X, old LIDAR data from 2014 World Bank project), Digital Twin (SpaceData Inc. and Blackshark.ai), Nightlights satellite imagery (Wuhan University), GOES, UN Maps, Open Street Map (Building, Roads, Boundary, etc.)
- Data Publicly Available: No
- Technology/Platform:
 - (AI) Digital Twin Creation derived from VHR imagery: CNN, NeRF, and Gaussian Splatting
 - (AI) Palm Tree Detection using VHR imagery: Faster RCNN
 - EO Platform: GeoServer / Platform for AI: Python, Blender/Unreal Engine 5, ArcGIS Pro
- Project Updates: None
- Related Sustainable Development Goals (SDGs): SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action
- Partnership(s)/Collaborator(s)(s):
 - Government: MEIDECC/NDRMO in Tonga, Australian Government, New Zealand Government, and
 - International Organizations: Committee on Earth Observation Satellites (CEOS), UNOOSA/UN-SPIDER
 - University: Asian Institute of Technology and Wuhan University

- Space Agency: CONAE, JAXA, ASI, New Zealand Space Agency
- Private Sector: Athena Global, GNS - Science, CIMA Foundation, Blackshark ai, Space Data Inc. and Airbus
- Relevant Links and Multimedia: <https://www.youtube.com/watch?v=-RAIo5OfBIM>
- Lessons Learned: The impact of Digital Twin technology derived from satellite imagery is big for stakeholders, and after dissemination to other countries at the conference, there are many requests for the installment of the same product. Plus, in the first remote sensing workshop in Tonga on December 2024, we found that Google Earth Engine is favorable for any technical staffs on their operations and ArcGIS Pro Deep Learning tools brought new insights for ministries, especially Ministry of Climate Change for detection of palm trees in the island, Ministry of Statistics for detection of building footprint, and Ministry of Geology for InSAR analysis for monitoring the volcano.
- Contact Information: Lorant Czarán (czaran@un.org) and Jumpei Takami (jumpei.takami@un.org)

2. Related Sustainable Development Goals

SDG 4, 5, 6, 11, 13, 15, 17

3. Relevant Links

<https://www.unoosa.org/>

Contact Information

Jorge Del Rio Vera, Scientific Affairs Officer (Space Technology) (jorge.delrioverta@un.org);
Markus Woltran (Markus.woltran@un.org)

United Nations Research Institute for Social Development



1. Description of Activities on AI

UNRISD has completed a think-piece series on new technology and human rights (More details [here](#))

Project: Think Piece Series

UNRISD has completed a Think Piece Series which invited experts from academia, think tanks and civil society to engage with the topic of linking technology and human rights, and to share their experience at the front lines of policy-driven research and advocacy aimed at leaving no one behind in an increasingly digital, automated world.

This Series aimed to provide perspectives on the intersections between new technology and various dimensions of civil and political rights and economic, social and cultural rights, including the right to health, work, social protection, freedom of expression and more. It also presents reflections on how we conceptualize and practice human rights in the face of technology-driven change on a global scale.

The Series was launched to coincide with the 37th Session of the UN Human Rights Council, as part of UNRISD's commitment to promote socially just and sustainable development within and beyond the UN system. It is also part of the UN system's celebration of the 70th anniversary of the Universal Declaration of Human Rights.

- First Edition: From Disruption to Transformation
 - [Tech for Transformative Change? Looking beyond Disruption](#)—Kelly Stetter
 - [Time for a Fourth Generation of Human Rights?](#)—Changrok Soh, Daniel Connolly and Seunghyun Nam
 - [Embracing Human Diversity: Policies and Enabling Factors for Accessible Technologies](#)—Alejandro Moledo
 - [Data Frameworks for a Right to Development](#)—Anita Gurumurthy and Nandini Chami
 - [Big Data and Monitoring Sustainable Development Goal 3: Not Counting Those Left Behind?](#)—Carmel Williams
 - [Accounting for the Most Vulnerable: Ensuring Big Data Works for Sustainable and Inclusive Development](#)—Sabrina Rau and Sheldon Leader
 - [How IT Threatens Democracy](#)—Kofi Annan
 - [Technology and Freedom of Expression: Opportunities and Threats through the Journalist's Lens](#)—Mariateresa Garrido
 - [A Feminist Interrogation of Autonomy on the Internet](#)—Jac sm Kee
- Second Edition: Tools for Transformation

The second edition of this think piece series on new technologies and human rights focuses more on responses and possible solutions to issues sketched out in the first edition. The authors were speakers at our [official side event of the 39th session of the United Nations Human Rights Council](#) on new technologies and human rights held in September 2018.

- o [Profiling and Automated Decision Making: Is Artificial Intelligence Violating Your Right to Privacy?](#)—Tomaso Falchetta
- o [Legal Literacy: An Essential Complement to Digital and Scientific Literacy](#)—Thérèse Murphy
- o [Human Rights and New Technologies: Setting the Agenda for Human Rights-Centred Innovation](#)—Molly K. Land

UNRISD held an event on **new technologies and human rights**, co-sponsored by Austria and Denmark, at the 39th session of the UN Human Rights Council. More detail [here](#).

2. Challenges and Opportunities

Great interest in the topic, but difficult to convert into solid funding for holistic and critical research enquiries.

3. Relevant Links

Contact Information

Paul Ladd, Director (paul.ladd@un.org)

United Nations System Staff College



1. Description of Activities on AI

Project 1: UN Gen-IA Professional Certificate

- Description: This course is tailored for UN staff members who aim to harness the potential of Generative AI in their functions. Generative AI, a transformative subset of artificial intelligence, is reshaping content creation, data analysis, and complex problem solving. The course provides a comprehensive understanding of Generative AI, covering its mechanisms and practical applications in text, video, and images. By the end of the course, participants will gain foundational AI knowledge and be able to effectively utilize Generative AI technologies to enhance their work, contributing to the UN's mission more efficient.
- Project TYPE/OUTPUT:
 - Thematic self-paced modules.
 - Live webinars with led instructors.
 - On the job/case study guided practice
- Project Status: Course developing
- Project Start Year: 2024
- Project end year: Ongoing
- Project domain: Technical capacity development, responsible AI use, digital skills training, AI policy awareness
- Partners/Collaborators:
 - The course is informed by insights gathered through the UN Innovation Network, which facilitated input from staff across various UN agencies on emerging Generative AI trends and needs.
 - A focused desk review, along with contributions from academic experts experienced in UN learning and AI, helped shape the content.
 - The course entered a pilot phase with participation and feedback from diverse UN entities.
 - Relevant frameworks, including ITU's AI for Good Impact Report, were referenced to ensure alignment with ethical and inclusive AI use.
- Contact information: Itziar Arispe Ruiz de Gauna, Evaluation Learning Specialist, Knowledge Centre for Leadership and Management, United Nations System Staff College (UNSSC). Email: p.duman@unssc.org

Project 2: UN SDG:Learn AI Working Group and Integration of AI in Sustainable Development Learning

- Description: As the Joint Secretariat of UN SDG:Learn, UNITAR and UNSSC brought together UN agencies, governments, civil society, and academic partners through a dedicated AI Working Group to explore the role of artificial intelligence in sustainable

development learning. In 2024, the group held three meetings that highlighted innovations such as generative AI for instructional design, AI-powered patent summarization, and emerging AI-based edtech solutions. A collaborative online space was established to enable ongoing knowledge exchange. AI was also a central theme during the UN SDG:Learn Retreat in November 2024, where partners engaged in strategic discussions on the future of AI in learning, including its potential to transform instructional design and learner engagement. In addition, the UN SDG:Learn podcast featured a thematic episode titled “Banking on Biodiversity: The Seed Saver’s Crusade”, which explored how artificial intelligence and digital tools can support biodiversity, local knowledge systems, and sustainable agriculture. In the episode, Stefan Schmitz, Executive Director of the Global Crop Diversity Trust, emphasized the role of AI and data mining in advancing modern breeding technologies and reviving neglected crops. This episode illustrates the intersection of AI, local innovation, and the SDGs—broadening the scope of sustainable development learning by linking digital innovation with global food systems and biodiversity preservation.

- Project TYPE/OUTPUT:
 - AI Working Group Coordination
 - Expert Webinars and Presentations
 - Strategic Discussion and Workshop
 - Podcast Episode (Audio Learning Resource)
- Project Status: Ongoing
- Project Start Year: 2019
- Project end year: Ongoing (open-ended)
- Project domain: Artificial Intelligence for Sustainable Development Learning and Public Awareness
- Partners/Collaborators:
 - FAO eLearning Academy
 - WIPO Academy
 - World Bank Group Open Learning Campus
 - Leeds Beckett University
 - UNITAR
 - UNSSC
 - UN SDG:Learn partner network
- Relevant links:
 - [UN SDG:Learn AI Podcast Episode – Banking on Biodiversity](#)
 - [UN SDG:Learn Platform](#)
 - [UN SDG:Learn LinkedIn](#)
- Contact information:
 - Paulyn Duman, Knowledge Management, Communications, and Reporting Officer, Knowledge Centre for Sustainable Development, United Nations System Staff College (UNSSC). Email: p.duman@unssc.org
 - Madina Imaralieva, Associate Programme Officer, Strategic Implementation of the 2030 Agenda Unit, Division for Satellite Analysis and Applied Research, UNITAR. Email: madina.imaralieva@unitar.org

Project 3: AI in Sustainable Development Learning: Integration in Climate and Digital Transformation Courses

- Description: In 2024, the UN System Staff College Knowledge Centre for Sustainable Development (KCSD) integrated emerging discussions on Artificial Intelligence (AI) into two of its major learning programmes. The first is the facilitated online course, The Paris Agreement on Climate Change as a Development Agenda, where Module 6 introduces AI as a cross-cutting enabler in supporting climate mitigation and adaptation strategies. The second is the Digital Skills Capacity Building (DSCB) module, which focuses on how digital transformation can be harnessed to advance sustainable development outcomes. It bridges theory and practice by equipping participants with practical digital skills such as product design and deployment in solving some of our pressing environmental problems. The module zooms on the opportunities AI offers the unintended consequences of widespread AI use in designing and utilizing digital products for sustainable development. These efforts represent UNSSC's steps in building AI literacy and responsible innovation capacity within the broader framework of the 2030 Agenda.
- Project TYPE/OUTPUT: E-learning courses (self-paced and facilitated)
- Project Status: Ongoing
- Project Start Year: 2024
- Project end year: Ongoing
- Project domain: Learning; Climate Change and Sustainable Development; Digital Transformation; Capacity Development
- Partners/Collaborators: UNFCCC, UNEP, GIZ, CODES, Office of the UN Technology Envoy
- Relevant links:
 - Digital4Sustainability Learning Path
 - The Paris Agreement on Climate Change as a Development Agenda
- Contact information:
 - Sandhya Balasubrahmanyam, Learning Portfolio Manager, Knowledge Centre for Sustainable Development, United Nations System Staff College (UNSSC), s.bala@unssc.org
 - Christianna Pangalos, Learning Portfolio Manager, Knowledge Centre for Sustainable Development, United Nations Systems Staff College (UNSSC), c.pangalos@unssc.org

Project 4: Blue Line Global Learning Hub

- Description: The Blue Line is an online learning hub created by the UN System Staff College to equip all UN personnel with personalized and self-directed learning opportunities. Beyond an e-learning platform, the Blue Line is a value-driven learning community where UN colleagues from across the globe share collective experiences and knowledge to advance the UN's goals and make a lasting impact. The Blue Line is now in use by 57,000+ UN personnel across 150+ duty stations, with corporate subscriptions from 15 UN entities committed to continuous learning.
- Project TYPE/OUTPUT: Development and integration of AI to generate insights on learning trends, perform semantic and sentiment analysis of qualitative feedback, and provide personalized recommendations to participants through a bespoke recommendation system.
- Project Status: On-going
- Project Start Year: 2023
- Project end year: Ongoing (open-ended)
- Project domain: Learning and training

- Partners/Collaborators: LINKS Foundation
- Relevant links: <https://www.unssc.org/blue-line/about>
- Contact information:
 - Ugo Caruso, Team Lead, Digital Learning Services Unit, United Nations System Staff College (UNSSC), u.caruso@unssc.org
 - Sofia Exarchou, Associate Learning Officer, Digital Learning Services Unit, United Nations Systems Staff College (UNSSC), s.exarchou@unssc.org

2. Related Sustainable Development Goals

All SDGs

3. Relevant Links

Contact information:

Ugo Caruso, Team Lead, Digital Learning Services Unit, United Nations System Staff College (UNSSC), u.caruso@unssc.org

United Nations World Tourism Organization



1. Description of Activities on AI

UN Tourism, the United Nations World Tourism Organization, works with Artificial Intelligence principally through providing opportunities for startups that are either primarily involved in this technology or utilise it in their solutions. Spanning several startup competitions powered by UN Tourism, up to 60 top solutions from 35 countries are engaged in emerging technologies directly relevant or adjacent to AI. They are being supported by the UN Tourism Innovation Network through connection to Member States and investors as well as training and development support. By doing so, the Organization enables the digitalization of the tourism sector and facilitates broader adoption of technologies worldwide for the benefit of local communities and the sector stakeholders.

Project 1: UN Tourism - Artificial Intelligence Challenge

With AI and advanced technologies reshaping the travel industry, countries around the globe have been integrating these solutions to improve personalized services, streamline operations, and elevate customer engagement, delivering scalable solutions that bring measurable results. This vision drives the UN Tourism AI & Deep Tech Start-up & Scale-Up Challenge, which aims to spark innovation and entrepreneurship in tourism with practical, high-impact AI applications across the tourism value chain.

Categories:

- Branding, Promotion and Marketing: Reputation, Branding & Marketing Focus on enhancing destination branding and promotion through the use of AI and deep technologies.
- SMART Destinations and Deep Technologies: Creating Cohesive Experiences Harness integrated technologies to create seamless and sustainable visitor experiences at smart destinations.
- Education & Technology: EdTech for Tourism: Empowering Sustainable futures Utilize AI and digital platforms to enhance education and training in the tourism sector.
- Efficiency and Operations: Tourism Flow Management & Cross-Border Efficiency Leverage AI and deep technologies to manage tourism flows and improve cross-border travel efficiency.

This competition closed with a total of 441 applicants from 84 countries.

Percentage per UN Tourism Region:

- Africa: 16.71%

- Americas: 23.24%
- Asia and the Pacific: 14.53%
- Europe: 39.46%
- Middle East: 6.05%

(the finalists and winners will be made available mid-May)

Project 2: UN Tourism – Women in Tech Startup Competition Middle East 1st Edition

Countries across the Middle East have been integrating innovation and women empowerment within their long-term economic development plans. With women across the region becoming more interested in STEM degrees and launching startups, they need support and access to growth and funding opportunities. In this regard, the Women in Tech Startup Competition offers a platform for innovation opportunities in tourism for new entrepreneurs.

Categories:

- Tourism & Travel Experience (food and beverage, transportation and accommodation, travel, and retail industries)
- Social Impact (technology in wellness, health, urban development, rural development, sustainability, and education)
- Events & Community (social and messaging platforms, e-sports and gaming platforms, community-based applications, events-related platforms, and education technology)
- Future Tech (AI, AR/VR, crypto currency, internet of things, blockchain technology, digital twining and the metaverse)

This competition closed with a total of 143 applicants from 11 countries in the Middle East. All the winning startups of the competition were based off AI-solutions:

- [Sparkle Haze](#) (UAE): Award-winning voice AI assistant speaker for luxury hospitality.
- [Plastus Biotech](#) (KSA): Patented tech converts organic waste into 100% biodegradable bioplastic.
- [Fosha](#) (Egypt): AI-powered app for travel service bookings.
- [Xenios Academy](#) (UAE): AI powered EdTech startup with gamified training programs for cafes, restaurants, and hotels to bridge skill gaps.

Official website: <https://www.unwto.org/startup-competition/unwto-women-in-tech-middle-east>

Project 3: UN Tourism – Awake Tourism Challenge

Following a careful evaluation process, 15 winners out of 2,000 participants from 120 countries were released. The majority of applications came from Africa, Europe and the Americas, and mainly from the Tourism Tech for Good and Local Community Involvement categories. Top ready-to-implement solutions have joined the UN Tourism Innovation Network and look forward to engaging projects all over the world.

Official website: <https://www.unwto.org/unwto-awake-tourism-challenge>

Project 4: UN Tourism Online Academy

UN Tourism Online Academy continues to grow now offering 40+ courses, including courses on AI and technology, from renowned universities and now introducing more content on technologies and their application to daily tourism and hospitality operations. Women account for 57% of the total of students.

Official website: <https://www.unwto-tourismacademy.ie.edu/>

Project 5: ITU Focus Group on Metaverse and the UN Tourism Task Group on Metaverse Tourism

UN Tourism is vice-chair of the ITU Focus Group on Metaverse and leads the Task Group on Metaverse Tourism which attempts to compile a list of possible use cases and applications of technology in the tourism sector and to analyse whether there is a need for standards or guidelines. Recommendations are expected as outputs of the expert discussions.

Official website: <https://www.itu.int/en/ITU-T/focusgroups/mv/Pages/default.aspx>

Project 6: AI Global Report, Policy Recommendations & Training Programme

- Project Short Description: UN Tourism is working on the “Global AI Report, Policy Recommendations for Member States, and Training for Officials from the Member States” initiative. The project develops a comprehensive report assessing the global adoption and impact of artificial intelligence (AI) in the tourism sector, based on the findings of a global survey. It further delivers concrete policy recommendations tailored for Member States, a practical training course, and a digital toolkit. These resources aim to support governments in integrating AI into tourism governance, enhancing workforce skills, and strengthening destination competitiveness.
- Responsible Department: Innovation, Education and Investments
- Project Outcome: A comprehensive AI global report, tailored policy recommendations for Member States, a practical training programme, and a digital toolkit to support responsible and strategic AI adoption in national tourism agendas.

Project 7: AI Impact Analysis on Tourism Jobs & Digitalization and the Future of Tourism

- Project Description: In collaboration with the Ministry of Tourism of the Kingdom of Saudi Arabia, UN Tourism is working with this project which aims to deliver an in-depth report examining the transformative effects of Artificial Intelligence (AI) and digitalization within the tourism sector. The study analyses AI’s impact on job roles, skill requirements, and workforce dynamics, assesses the adoption of emerging technologies, and forecasts future workforce trends. It highlights digitalization trends, customer experience enhancements, and workforce adaptability, providing actionable recommendations to guide policymakers, industry leaders, and stakeholders in shaping a future-ready tourism sector.
- Responsible Department: Innovation, Education and Investments and Regional Office for the Middle East
- Project Outcome: A comprehensive report offering analysis, forecasts, and actionable recommendations on impact of AI on tourism jobs and digitalization, helping Member States and industry stakeholders navigate technological shifts and workforce transformations in the tourism sector.

Project 8: Other UN Tourism Startup Competitions and Innovation Challenges

UN Tourism has developed additional programmes which identify startups with use cases of AI in different segments of the value-chain, tourism products, and destination types.

- Event Tourism Startup Competition: <https://www.unwto.org/startup-competition/mega-events-and-mice-tourism>
- Startup Competition for Island Destinations: <https://www.unwto.org/unwto-tourism-tech-adventures-canarias-2023>
- Hospitality Challenge: <https://www.unwto.org/startup-competition-tourism-technologies-solutions-in-hotels-new-business-models>
- 4th Global Gastronomy Tourism Startup Competition: <https://www.unwto.org/startup-competition/4th-global-gastronomy-tourism-startup-competition>
- UN Tourism Open Innovation Challenge France: Collaborations between French Travel Tech Startups and Large Tourism Companies: <https://www.unwto.org/event/concours-d-open-innovation-france>

2. Related Sustainable Development Goals

SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

3. Relevant Links

<https://www.unwto.org/>

Contact Information

- Natalia Bayona, Executive Director (nbayona@untourism.int)
- Antonio López de Ávila, Director - Innovation, Education and Investments Department (alopezdeavila@untourism.int)
- Glenn Cauwenberghs, Senior Specialist - Innovation, Education and Investments Department (gcauwenberghs@untourism.int)
- José Díaz Ardila, Senior Specialist - Innovation, Education and Investments Department (jdiaz@untourism.int)

United Nations University



**UNITED NATIONS
UNIVERSITY**

1. Description of Activities on AI

Project 1: UNU-EGOV and ISSA joint webinar series on Artificial Intelligence dedicated to the social security agencies and government services

- **Project Description:** This is part of a series of webinars on Artificial Intelligence collaboration between UNU-EGOV and International Social Security Agency (ISSA) University with whom we are also preparing a report on the use of Artificial Intelligence in Social Security.
The plan for the webinar is to have an initial 20-minute presentation to researchers and academics as a framing “academic” presentation. Then multiple practitioners from well-known international agencies, technology focus on their experience and approaches in implementing AI and data driven interventions, it can also be of about 20 minutes. Finally, we will have a 30-minute Questions and Answers discussion session. The audience is very varied. It will very likely attract CIOs and ICT managers from social security institutions wanting to understand more about what various issues on AI ranging from AI in healthcare, Conversational Agents, Explainability, Risk, Information protection. On average about 200-300 people remain online during the webinar, mostly concentrated in Europe, Africa and Americas and some from Asia region. The webinars are recorded for later viewing for those who could not connect on the spot.
- **Division/Department:** UNU EGOV under general ISSA - UNU-EGOV partnership on digital transformation and capacity development
- **Project Type/Output:**
- **Project Status:** On going
- **Project Start Year:** 2022
- **Project End Year:** 2024
- **Project Domain:** Social Security Agencies, Government Agencies
- **Data Source:** N/A
- **Data Publicly Available:** N/A
- **Technology/Platform:** Webinar via zoom
- **Related Sustainable Development Goals (SDGs):** SDG 1-12, 16, 17
- **Partnership(s)/Collaborator(s):**
- **Relevant Links and Multimedia:** A few recent links
 - <https://www.issa.int/events/webinar-2024-01-18>
 - <https://www.issa.int/events/webinar-2023-06-29>
 - <https://www.issa.org/event/risk-management-in-the-age-of-ai/>
- **Contact Information:** Delfina Soares (soares@unu.edu)

Project 2: Digital Transformation for the Implementation of BMZ Flagship Projects on Digitalisation – Lot 3 AI Expertise

- Project Description: Consultancy for GIZ and its partners on the following topics:
 - a. The application of artificial intelligence (AI) and machine learning (ML) in a sustainable development context (e.g. in agriculture, mobility, urban development, energy, financial inclusion and the wider financial system and the public sector), including the development, deployment and integration of ML systems with other software.
 - b. Explanations of artificial intelligence and machine learning systems including the current status and potential of AI and ML that are accessible for a non-expert audience, in particular in GIZ's partner countries.
 - c. Risk assessments of the use of AI and ML in a sustainable development context, following international best practices and GIZs standards and focussing on issues including potential discrimination, especially of disadvantaged groups, in training datasets and by AI/ML models, as well as mitigation measures for these identified risks, including approaches for de-biasing of training data.
 - d. Sustainability assessments for AI and ML deployments following GIZs the following three good practice standards 1) Principles for Digital Development 2) criteria for ML projects and 3) "Self-sustaining Open AI cycle in nine steps".
 - e. Analyses of the ecosystems of AI and ML including the mapping and assessment of stakeholders and analysis of framework conditions in partner countries of German Development Cooperation, nationally, regionally or globally.
 - f. Contributions from a technical point of view to policy discussion around artificial intelligence e.g. data governance, local hosting requirements, data flows etc.
 - g. Creation of material for and implementation of capacity building measures in GIZ's partner countries, especially India, in the cross-section of AI and cyber security, especially on secure AI systems, the relationship between AI and cyber security and open AI training data and AI-based cybersecurity.
 - h. The creation of training datasets for AI and ML in a sustainable development context, especially the creation of openly available datasets in a manner that ensures the sustainable maintenance and extension of such datasets.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Consulting
- Project Status: Ongoing
- Project Start Year: 2022
- Project End Year: 2024
- Project Domain: Public Administration, e-Government
- Data Source: Participation in calls and other off-site activities like virtual working group meetings, coaching and mentoring of GIZ's partners, desk research and drafting of factsheets and practical reports, on-site consulting
- Data Publicly Available: No
- Partnership(s)/Collaborator(s): GFA Consulting Group GmbH
- Contact Information: Delfina Soares (soares@unu.edu)

Project 3: AI4PA Portugal Artificial Intelligence & Data Science for Public Administration Portugal Innovation Hub

- Project Description: The AI4PA aims to support the digital transition of public administration by introducing Artificial Intelligence and other technologies (technically adequate and socially responsible and oriented towards the common good) to increase the effectiveness of public policies, as well as capacitating relevant stakeholders at the

central, regional and local public administration and SMEs that offer digital solutions suited to the needs of the State.

- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Collaborative network, Testing, Experimentation, Training, Consulting
- Project Status: Ongoing
- Project Start Year: 2021
- Project End Year: -
- Project Domain: Public Administration, e-Government
- Data Source: public policies
- Data Publicly Available: No
- Related Sustainable Development Goals (SDGs): 11
- Partnership(s)/Collaborator(s): AMA – Agência para a Modernização Administrativa, CVTT-Iscte - Associação Iscte Conhecimento e Inovação - Centro de Valorização e Transferência de Tecnologias, AESINTRA - Associação Empresarial de Sintra, AIP - CCI - Associação Industrial Portuguesa - Câmara de Comércio e Indústria, ANPME - Associação Nacional Pequenas Médias Empresas, Associação Laboratório Colaborativo para o Trabalho, Emprego e Proteção Social - LCTEPS (CoLABOR), AUDAX - Centro de Inovação e Empreendedorismo, Cisco International Limited, Sucursal em Portugal, Comunidade Intermunicipal do Oeste (OESTECIM), Direção-Geral de Estatísticas da Educação e Ciência (DGEEC), Esri Portugal - Sistemas e Informação Geográfica, S.A, GEP/MTSSS - Gabinete de Estratégia e Planeamento, INDEG - Iscte Executive Education, IPPS - Instituto para as Políticas Públicas e Sociais, MORE CoLAB - Laboratório Colaborativo Montanhas de Investigação, Município de Sintra, Município de Viseu, UGT -União Geral de Trabalhadores, UNINOVA - Instituto de Desenvolvimento de Novas Tecnologias
- Contact Information: Aymen Boudebouz (aymen.boudebouz@unu.edu)

Project 4: Global assessment of responsible AI in cities (AI4Cities)

- Project Description: Provide technical support to develop a thorough assessment of the opportunities and constraints for local government development to responsibly implement, use and govern Artificial Intelligence (AI) technologies in cities. The following activities are included:
 - designing and analysing a global survey for cities,
 - performing desk-based research to capture case studies on the use and governance of AI in cities,
 - drafting a research paper with findings and policy recommendations to address capacity gaps.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Consulting
- Project Status: Ended
- Project Start Year: 2022
- Project End Year: 2024
- Project Domain: Local government
- Data Publicly Available: No
- Related Sustainable Development Goals (SDGs): 11 Relevant link and multimedia: <https://unhabitat.org/global-assessment-of-responsible-ai-in-cities>

- Partnership(s)/Collaborator: International Development Research Centre (IDRC), UN-HABITAT
- Contact Information: Soumaya Ben Dhaou (bendhaou@unu.edu)

Project 5: AI for Social Security and Public Service in CARICOM and Small Island States (2024 _

- Project Description: In collaboration with the International Social Security Association (ISSA), UNU-EGOV was engaged in a training program for CARICOM member states, focusing on the relevance of AI for social security and public services for building local AI capacity in the context of Small Island Developing States.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Consulting
- Project Status:
- Project Start Year: 2024
- Project Domain:
- Related Sustainable Development Goals (SDGs):
- Relevant Links and Multimedia:
- Contact Information: Delfina Soares (soares@unu.edu)

Project 6: Guiding Principles for Artificial Intelligence in Cities

- Project Description: ITU working group in collaboration with U4SSC-ITU_ This initiative focuses on developing comprehensive guidelines and assessment tools to support cities in responsibly adopting AI technologies, ensuring inclusivity, sustainability, and ethical governance. Furthermore, FAIR Cities incorporates stakeholder engagement methodologies, such as workshops, interviews, and surveys, which are key for gathering diverse perspectives and fostering co-ownership of AI strategies. The project's focus is on practical tools for evaluating AI readiness and governance gaps.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Working Group
- Project Status: Ongoing
- Project Start Year: 2025
- Related Sustainable Development Goals (SDGs): 11
- Relevant Links and Multimedia:
- Contact Information: Delfina Soares (soares@unu.edu)

Project 7: Digital transformation and emerging technologies

- Project Description: The research project is part of the research line “Emerging Technologies for Digital Transformation in the Public Sector”, is coordinated by Dr. Soumaya Ben Dhaou. The purpose of this research line is to explore how emerging technologies, such as Blockchain, Internet of Things (IoT), Big Data, Data Analytics, Artificial Intelligence (AI), machine and cognitive learning can transform the public sector, service delivery, decision-making, and support the sustainable development. This research line focuses on the adoption process and use-cases driven by the opportunities, benefits, potential weaknesses, and risks associated with new technologies and concepts in innovation and digital transformation. This project will focus more specifically on the defining the emerging technology and alleviate the confusion related to better explore its potential for Government and Public sector field. It also includes an in-depth analysis of a

specific technology, which is blockchain technology from a use and adoption perspective from Governments and Public service to comply with the sustainable development goals.

- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Research
- Project Status: Ongoing
- Project Start Year: 2017
- Project End Year: 2025
- Project Domain: Digital Transformation in the Public Sector
- Data Publicly Available: No
- Related Sustainable Development Goals (SDGs): 5, 7, 10, 11, 12, 14
- Relevant link and multimedia: <https://unu.edu/egov/project/digital-transformation-and-emerging-technologies>
- Partnership(s)/Collaborator:
- Contact Information: Soumaya Ben Dhaou (bendhaou@unu.edu)

Project 8: Explainable identification of predictive factors for successful inter-agency partnerships

- Project Description: The seminar showcases an AI engine for ranking partnership success factors and improving decision-making in multilateral development organizations.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Seminar/meeting
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Decision-Making, Responsible AI, Sustainable Development, Text Mining, Semantic and Sentiment Analysis
- Data Source: N/A
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 9
- Relevant Links and Multimedia: <https://unu.edu/egov/seminar/explainable-identification-predictive-factors-successful-inter-agency-partnerships>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 9: A Futuristic Scenario of Digital Governance in 50 Years

- Project Description: Explore AI's vision for the future of digital governance as UNU approaches its 50th anniversary, imagining citizen-government interactions in 2074.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Series
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Digital Governance, Citizen, Generative Artificial Intelligence
- Data Source: N/A
- Data Publicly Available: No
- Technology/Platform: N/A

- Related Sustainable Development Goals (SDGs): 11
- Relevant Links and Multimedia: <https://unu.edu/egov/series/futuristic-scenario-digital-governance-50-years>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 10: Artificial Intelligence and Development: the Missing Link

- Project Description: This seminar clarifies AI4D's role in ICT4D, ensuring AI technologies genuinely support development goals.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Seminar
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Information and Communication Technologies, AI for Development, Human Rights, social and Societal Values and Principles
- Data Source: N/A
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 9
- Relevant Links and Multimedia: <https://unu.edu/egov/seminar/artificial-intelligence-and-development-missing-link>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 11: Artificial Intelligence in Social Security Organizations

- Project Description: The United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV) has done a report in collaboration with the International Social Security Association (ISSA), examining the growing use of Artificial Intelligence (AI) in social security. "Artificial Intelligence in Social Security Organizations" underscores the transformative potential of AI in enhancing the efficiency and effectiveness of social security institutions.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Report
- Project Status: Completed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain: Social Security Agencies, Government Agencies
- Data Source: N/A
- Data Publicly Available: N/A
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 1-12, 16, 17
- Partnership(s)/Collaborator(s): International Social Security Association
- Relevant Links and Multimedia: <https://unu.edu/sites/default/files/2024-06/2-AI%20in%20SecSoc%202024.pdf>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 12: Predictive factors for interagency partnership success

- Project Description: Can development agencies' project data, design, monitoring and evaluation, scrutinized by AI technologies, systematically inform evidence-based policymaking? Can real-time local media and social media contextualize such data? The seminar explores such a domain by focusing on project evaluations and interagency partnerships..
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Seminar
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Development Agencies, Project Data, Interagency Partnerships
- Data Source: N/A
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 17
- Relevant Links and Multimedia: <https://unu.edu/egov/seminar/predictive-factors-interagency-partnership-success>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 13: Responsible AI for Sustainable Development in Asia-Pacific Cities

- Project Description: This research project is conducted in the Asia-Pacific region. It explores how the "responsible" adoption, implementation, and governance of AI in cities address the risks and challenges of AI across various application areas, such as healthcare, public services, public safety, social welfare, transportation, environment, education, energy, and tourism. It examines how these AI applications contribute to urban sustainability and their role in achieving the Sustainable Development Goals (SDGs). Based on the study of thirty cases from the Asia-Pacific region, the findings reveal diverse AI landscapes, presenting advantages and challenges.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Policy brief, article, and report
- Project Status: Completed
- Project Start Year: 2023
- Project Domain: Digital Governance, Artificial Intelligence
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 11
- Relevant Links and Multimedia: https://apctt.org/sites/default/files/attachment/2024-08/06_Responsible_artificial_intelligence_for_sustainable_development.pdf
- Contact Information: Delfina Soares (soares@unu.edu)

Project 14: AI Adoption in Brazilian Cities

- Project Description: UNU-EGOV research on AI Adoption in Brazilian Cities involved conducting a baseline assessment of the existing AI ecosystem, focusing on improving public services and addressing urban challenges through AI technologies.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance

- Project Type/Output: Policy brief, article, and report
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Digital Governance, Smart Cities, Artificial Intelligence
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 11
- Relevant Links and Multimedia: <https://cetic.br/pt/publicacao/year-xvi-n-2-technologies-for-public-services/>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 15: Responsible and Inclusive Urban AI: Opportunities and Challenges for Advancing Sustainable Development Goals.

- Project Description:: This project navigates the intersection of Artificial Intelligence (AI) in cities and the imperative of responsible governance for sustainable development. The paper addresses the transformative potential of AI for urban challenges by leveraging insights from the global assessment of AI in cities and proposes key considerations for responsible AI adoption in cities, offering actionable strategies for aligning AI initiatives with the SDGs.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Policy brief, article, and report
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Digital Governance, Smart Cities, Artificial Intelligence
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 11
- Relevant Links and Multimedia: https://sdgs.un.org/sites/default/files/2024-05/Isagah_Responsible%20and%20Inclusive%20Urban%20AI.pdf
- Contact Information: Tupokigwe Isagah (isagah@unu.edu)

Project 16: Artificial Intelligence in Africa

- Project Description: This research project assesses the implementation of AI in Africa to provide recommendations for responsible design and use of the technology. The research paper provides a thorough literature review of the AI ecosystem, encompassing the current infrastructure, standards, policies, and regulations related to Artificial Intelligence readiness in Africa, and proposes actions to be taken to accelerate the responsible adoption of the technology.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Policy brief, article, and report
- Project Status: Completed
- Project Start Year: 2024
- Project Domain: Digital Governance, Artificial Intelligence
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): 11

- Relevant Links and Multimedia: <https://dl.acm.org/doi/full/10.1145/3680127.3680199>
- Contact Information: Tupokigwe Isagah (isagah@unu.edu)

Project 17: 17th International Conference on Theory and Practice of Electronic Governance (ICEGOV), TRACK 1: Trust and Ethical Digital Governance for the World We Want

- **Project Description:** The rapidly changing technology advances charged with Artificial Intelligence (AI) and Generative AI (GenAI) accelerate disruptions and innovations. The rapid adoption of these technologies without careful design and governance principles, ensuring ethical and human rights considerations, can have a huge implication in trust in the digital and physical society. The potentially transformative power of these technologies is yet to be determined and could fundamentally change the way societies function and the way technology is governed. This Track invites papers that deal with issues related to advancing trust, ethical uses, transparency and accountability in digital governance, without inhibiting the development of new technologies for a better world we want. The track further welcomes empirical studies of government organisations' work and experimentation with enhancing digital participation and inclusiveness in the governance of emerging technologies. The track welcomes alternative and creative methods and experimentations to reflect the voices and digital participation of all stakeholders from the global landscape (North-South, South-South, East-West, Tech-Gov, etc) in shaping governance considerations. Alternative methods may include those that cross the boundaries of traditional bureaucracy and show the potential of participatory design, eParticipation, collaborative online initiatives, and crowdsourcing in the public sector to collect policy-relevant information, knowledge, opinions, proposals, and ideas from citizens and public value co-creation with citizens and businesses. The Track also welcomes conceptually oriented papers that further the field's understanding of emergence and anticipation related to ethical digital governance.
- **Division/Department:** UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- **Project Type/Output:** Conference Session
- **Project Status:** Completed
- **Project Start Year:** 2024
- **Project End Year:** 2024
- **Project Domain:** Advancing trust, ethical uses, transparency and accountability in Artificial Intelligence
- **Data Publicly Available:** No
- **Relevant Links and Multimedia:** <https://www.icegov.org>
- **Contact Information:** Delfina Soares (soares@unu.edu)

Project 18: 17th International Conference on Theory and Practice of Electronic Governance (ICEGOV), Roundtable Session 3: Building Information for All in Africa: Artificial Intelligence for inclusion and human-centered digital futures

- **Project Description:** ICEGOV 2024 Roundtable Session
- **Division/Department:** UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- **Project Type/Output:** Conference session
- **Project Status:** Completed
- **Project Start Year:** 2024
- **Project End Year:** 2024
- **Project Domain:** Artificial Intelligence

- Data Publicly Available: No
- Related Sustainable Development Goals (SDGs): 11
- Partnership(s)/Collaborator: Data Economy Policy Hub (DepHUB) South Africa, Broadcasting Commission of Jamaica, UNESCO, Global Digital Inclusion Partnership, CETIC.br, NIC.br
- (Brazil)
- Relevant Links and Multimedia: <https://www.icegov.org>
- Contact Information: Delfina Soares (soares@unu.edu)

Project 19: Climate Action, Justice, and Responsible e-GOV & Technology (Just-CARE)

- Project Description: Just-CARE aims to deepen our understanding of the relationship between climate justice and advanced digital technologies (e.g. artificial intelligence, Big Data, digital infrastructure, and emergent technologies) and their differentiated impacts on systematically marginalized communities through an intersectional, relationship-centred, and rights-based approach. The project consists of four focus areas:
 1. Just-CARE 2 ENGAGE: Mapping the climate justice and tech space and/or implicated systems. Engaging systematically marginalized communities in co-designing and implementing research, policy and programming to realize just climate futures.
 2. Just-CARE 2 KNOW: Recovering and generating knowledge through mixed-methods of research, including community-participatory action research, strategic foresight, and trend analysis, in order to develop a robust and more nuanced understanding of the impacts of digital technologies on climate change and action.
 3. Just-CARE 2 MOBILIZE: Identifying and mobilizing resources to support climate justice and tech work, with an emphasis on centring the Global Majority through an intersectional, decolonial approach.
 4. Just-CARE 2 IMPACT: Translating the insights generated through a state-of-the-art literature review, community-engaged and led research, and strategic foresight to actionable recommendations to influence both climate and digital policy and governance to meaningfully address climate justice locally and globally.
- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: Conference session, collaborative network, workshops, policy briefs, research
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: -
- Project Domain: Climate change, Indigenous rights, human rights, digital governance, justice
- Data Source: Peer-reviewed research, workshop insights (primary data), news/media, government documents/policies, and datasets
- Data Publicly Available: No
- Related Sustainable Development Goals (SDGs): 5, 6, 7, 10, 11, 12, 13, 14, 15, and 16.
- Partnership(s)/Collaborator(s): Climate Refugees, Costa Rica Indígena, Asociación de Mujeres Indígenas Cabecar Kjala Bata, Ye! Community, FRENAPI, UNECA, Goodwall, Queering Climate, Arctic Basecamp, YME Bahamas, the Cat Island Conservation Institute, etc.
 - Relevant Links and Multimedia: Forthcoming
- Contact Information: Bushra Ebadi (ebadi@unu.edu)

Project 20: Decolonizing Technology: Powering Just Futures

- **Project Description:** Existing technology design, development, deployment, and procurement practices tend to replicate colonial dynamics that negatively impact marginalized communities and their agency in deciding when, how, and if they will use certain technologies. Within existing systems, it is common practice for populations in the Global South, as well as marginalized populations within the Global North, to be forced to utilize digital technologies, such as social media platforms, fintech, edtech, health-tech, systems software and hardware, and IoTs, that are developed by Big Tech corporations or wealthy individuals based in the Global North. At the same time, the material, data, and human resources required to power and support these technologies are often extracted from the Global South in ways that replicate or foster colonial power dynamics and systems.

The Decolonizing Technology: Powering Just Futures project presents an overview of scholarship on colonial and inequitable dynamics and/or power relations perpetuated by digital technologies and the systems underpinning, conceptualizing, or enabling them. The project aims to generate, share, honour, and translate insights and knowledge from research centring and conducted in partnership and collaboration with Global Majority communities in order to support existing and emergent efforts to decolonize digital technology, transformation, and governance. Core issues and concepts that are explored in this project include: digital apartheid, digital gender apartheid, Indigenous and Afro (Digital) Futurism, digital justice, decolonization, indigenization, liberatory and rights-based digital design, and digital divides.

- **Division/Department:** UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic
- **Governance**
- **Project Type/Output:** Conference session, collaborative network, workshops, policy briefs, research, report
- **Project Status:** Ongoing
- **Project Start Year:** 2023
- **Project End Year:** -
- **Project Domain:** Digital justice, decolonization, digital governance, human rights, AI ethics, digital ethics, values-based technology design
- **Data Source:** Peer-reviewed research, workshop insights (primary data)
- **Data Publicly Available:** Yes and No
- **Related Sustainable Development Goals (SDGs):** 1, 3, 4, 5, 8, 9, 10, 11, 12, 16, and 17.
- **Partnership(s)/Collaborator(s):** Cetic,br, Citizen Lab, Taraaz Research, the Azadi Project, etc.
- **Relevant Links and Multimedia:** Forthcoming
- **Contact Information:** Bushra Ebadi (ebadi@unu.edu)

Project 21: Safeguarding (Digital) Cultural Heritage in Crises

- **Project Description:** Safeguarding (Digital) Cultural Heritage in Crises is a collaborative initiative led by UNU-EGOV in partnership with scholars, cultural practitioners, artists, and to mobilise knowledge, resources, and relevant stakeholders across generations, geographies, and sectors to:
 - deepen our understanding of the ways digital technologies support and undermine cultural heritage in crises;
 - inform and shape the development and design of meaningful policies and governance mechanisms;

- support capacity building and training of artists, cultural practitioners, policymakers, and advocates;
- and facilitate knowledge sharing, including best practices and methods, across different crises contexts.

Digital technologies, including advanced digital tools such as extended reality, autonomous drones, and AI, are both supporting and undermining cultural heritage. The absence of meaningful and comprehensive digital governance mechanisms poses specific threats and challenges to the culture sector as a whole, as well as artists, cultural practitioners, and heritage (tangible and intangible), especially in crises contexts. Culture can be conceptualized as a technology, and leveraged as a tool for social transformation, community development and wellbeing, collective action, and the exercising of our individual and collective rights and agency.

- Division/Department: UNU-EGOV, United Nations University Operating Unit on Policy-Driven Electronic Governance
- Project Type/Output: workshops, stakeholder mapping, collaborative network, research, conference session/paper, journal article, capacity building and training, and mixed artistic mediums (including exhibits, zines, digital art).
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: -
- Project Domain: Culture, Cultural Heritage, Arts, Human rights, Artificial Intelligence, XR (extended reality), Crises, Conflict
- Data Source: Peer reviewed research, reports from international cultural and rights organizations (e.g., Amnesty International, Human Rights Watch,
- Data Publicly Available: Yes and No
- Related Sustainable Development Goals (SDGs): 1, 2, 4, 5, 8, 10, 11, 12, 16, 17
- Partnership(s)/Collaborator(s): University of Glasgow, Palestinian Cultural Fund, various artist collectives and cultural practitioners from crises contexts.
- Relevant Links and Multimedia: Forthcoming
- Contact Information: Bushra Ebadi (ebadi@unu.edu)

Project 22: Gendered implications of Artificial Intelligence on the implementation of the Women, Peace and Security agenda in Southeast Asia

- Project Description: The mainstreaming of artificial intelligence technologies (AI) globally has had an important impact on the security of women. While AI can be used for peacebuilding purposes, it is used unequally across genders, with women much more impacted than men by the digital divide. At the same time, AI systems have been shown to pose security risks to women, particularly with relation to online harms (such as cyberbullying, cyberstalking, doxing, misogynistic hate-speech and other forms of harassment), dis- and misinformation, and privacy. Finally, as Southeast Asian countries begin to develop strategies and regulations for AI, they often have not taken into consideration gender risks in AI, which can be obfuscated under the projected economic potential of the technologies.

Investment in AI technologies is increasing in the Southeast Asian region, although at an uneven pace, with some countries positioning themselves as global leaders in AI, while others having a much more limited capacity. It is projected, however, that AI will add 1 trillion dollars to the GDP of Southeast Asian countries by 2030. In this context, understanding the impact of these technologies on the Women, Peace and Security agenda (WPS) is critical to supporting Southeast Asian countries to regulate the technologies and mitigate their risks.

This research examined the opportunities and risks of AI from a WPS lens in Southeast Asia, with a focus on four types of gender biases in AI which will need to be addressed before the region can fully benefit from new technological developments; discrimination, stereotyping, exclusion, and insecurity. Understanding these and mitigating them is an important step in developing a safe and trustworthy AI ecosystem. The research included interviews with relevant stakeholders to understand the relationship between AI and WPS as well as a social media analysis of women civil society organisations in the region. Findings highlight three types of AI and its applications: AI for Peace, Neutral AI, and AI for Conflict. In each category, there are favourable and unfavourable effects of AI for gender-responsive peace and women's agency in peace efforts. These findings were used to inform an e-learning module on AI and the WPS agenda for women civil society in Southeast Asia and two critical recommendations are made; mitigating the risks of AI systems to advancing the WPS agenda and fostering the development of AI tools built explicitly to support gender-responsive peace in line with WPS commitments.

- Division/Department: United Nations University Institute in Macau
- Project Type/Output: Policy research project and training programme
- Project Status: Closed
- Project Start Year: 2021
- Project End Year: 2024
- Project Domain: Women's rights
- Data Source: Primary data collected via interviews
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 5
- Partnership(s)/Collaborator(s): UN Women Regional Office for Asia and the Pacific
- Relevant Links and Multimedia: <https://asiapacific.unwomen.org/en/digital-library/publications/2024/05/artificial-intelligence-and-the-women-peace-and-security-agenda>
- Contact Information: Jaimee Stuart (stuart@unu.edu)

Project 23: Generative AI, Anxiety, and Hope for the Future Among Young Adults

- **Project Description:** Generative Artificial Intelligence (Gen AI) is rapidly becoming part of our everyday digital experiences, it is not only embedded in apps in our smartphones but also in virtual assistants, software, chatbots and within search engines. Research has shown that young people are already using Gen AI in a variety of ways, and this technology provides many new and emerging risks and opportunities. For instance, it can be used as a means of enhancing creativity, with platforms and tools offering the opportunity to generate artwork, stories, and music. It can also help create personalized learning systems, tailoring help to young people's specific learning style and needs. Similarly, for young people with learning disabilities, Gen AI can enhance the accessibility of digital platforms, making them easier to use for more individuals. However, Gen AI is not without its potential risks and research shows that young people are aware of this. Their key concerns center around Gen AI's ability to spread misinformation and the potential for job displacement. Youth also have concerns that society may become overly reliant on Gen AI technology, the potential privacy concerns it poses and how it can be misused to cheat within an academic context or by governments and corporations.
- Overall, while young people accept that Gen AI is here to stay and will inevitably impact their future, they may face anxiety in response to concerns over the way AI is changing their future careers and educational opportunities, otherwise known as "AI-anxiety". Such impacts highlight the need for greater attention to be given to how generative AI is impacting young people's wellbeing, and whether helping them learn how to use these platforms can prevent their fear and anxiety surrounding it. The aim of this project, therefore, is to understand young adults' experiences of Gen AI – specifically examining motivations for using Gen AI technologies, what perceived risks and opportunities youth

believe it poses to their futures, and the association (if any) between perceptions of Gen AI developmental outcomes. This project is made up of two complementary among young adults (aged 18 – 25 years old), a survey with youth from a range of countries ranging from LMIC to HIC, and a series of interviews with young people in the United States. As such, the research used a mixed methods approach incorporating both quantitative and qualitative data collection. This approach will enable a deeper understanding of the topic and more complete evidence.

- Division/Department: United Nations University Institute in Macau
- Project Type/Output: Policy brief, journal article, report
- Project Status: Ongoing
- Project Start Year: 2023
- Project End Year: 2025
- Project Domain: Youth wellbeing
- Data Source: Primary data via surveys
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 3, SDG 4
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://unu.edu/macau/brief/cautiously-optimistic-young-peoples-thoughts-about-impacts-and-influences-generative>
- Contact Information: Jaimee Stuart (stuart@unu.edu)

Project 24: UNU Generative AI Monthly Series of Webinars

- Project Description: An in-depth exploration into ChatGPT and Generative Artificial Intelligence (AI) is a new monthly series of webinars that, recognizing the rapid advancements and transformative potential of Artificial Intelligence, aims to cultivate a comprehensive understanding and foster informed and responsible engagement with these emerging technologies. United Nations University Institute in Macau (UNU Macau) will be leading this programme, inviting distinguished scholars and researchers from the UNU system and an extensive network in academia and broader field, to deliver presentations on topics related to generative AI. The discussions will encompass a wide array of themes, from technical advancements to the ethical implications, societal impacts, and policy considerations surrounding the advanced technology. This series is aiming at presenting diverse perspectives on how generative AI will impact our collective future on health, education, environment, climate, UN peacekeeping, and humanitarian work.
- Division/Department: UNU-IIST Macau
- Project Type/Output: Seminar/meeting
- Project Status: Ongoing
- Project Start Year: 2023
- Project Domain: Education, Responsible AI, Law, Computer Science
- Data Source: N/A
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation and Infrastructure
- Relevant Links and Multimedia: <https://unu.edu/macau/unu-generative-ai-series>
- Contact Information: Serge Stinckwich (stinckwich@unu.edu)

Project 25: UNU-UNESCO-UM Workshop: Ethical AI - Pioneering Progress in the Asia-Pacific

- **Project Description:** In the unfolding era of Artificial Intelligence (AI), marked by the broader Fourth Industrial Revolution (Industry 4.0), intricate questions emerge at the intersections of ethics, politics, law, and economics. The transformative impact of AI, particularly generative models like ChatGPT, is automating tasks and generating content, promising substantial economic gains. Yet, this innovation brings ethical challenges, from data bias to misinformation. Recognizing the urgency for ethical oversight, UNU-IIST, in collaboration with UNESCO and the University of Macau, is delighted to host the international workshop titled "Ethical AI: Pioneering Progress in the Asia-Pacific". This workshop aims to facilitate multi-stakeholder dialogue, uniting experts, policymakers, and stakeholders to explore the ethical dimensions of AI and seeks to catalyze collective efforts toward responsible AI development and deployment in the region.
- **Division/Department:** UNU-IIST Macau
- **Project Type/Output:** seminar/meeting
- **Project Status:** Closed
- **Project Start Year:** 2023
- **Project Domain:** Ethics of Artificial Intelligence
- **Data Source:** N/A
- **Data Publicly Available:** No
- **Technology/Platform:** N/A
- **Related Sustainable Development Goals (SDGs):** SDG 4 - Quality Education, SDG 9 - Industry, SDG 17 Partnerships for the Goals,
- **Relevant Links and Multimedia:** <https://unu.edu/macau/event/international-workshop-ethical-ai-pioneering-progress-asia-pacific>
- **Contact Information:** Serge Stinckwich (stinckwich@unu.edu)

Project 26: Baseline assessment of the Artificial Intelligence landscape in Mongolia

- **Project Description:** The project aims to do a baseline assessment of the AI landscape in Mongolia to develop AI standards, frameworks, policies, and initiatives at the national level. Desk research has been conducted covering existing policies and uses of AI in Mongolia. Following the AI readiness methodology for the UNESCO Recommendations for the Ethics of AI (2021), the project develop a pilot AI readiness assessment that will help Mongolia to develop the complete methodology in the future and prepare for the national AI roadmap. The work has been conducted by UNESCO and the United Nations University Institute in Macau to develop a research project analyzing the current state of AI readiness in Mongolia. The project will inform the Mongolian National commission of UNESCO.
- **Division/Department:** UNU-IIST Macau
- **Project Type/Output:** Policy research project
- **Project Status:** closed
- **Project Start Year:** 2023
- **Project Domain:** Ethics of AI
- **Data Source:** Primary data collected via interviews
- **Data Publicly Available:** No
- **Technology/Platform:** N/A
- **Related Sustainable Development Goals (SDGs):** SDG 9 - Industry, Innovation and Infrastructure, SDG 17 Partnerships for the Goals
- **Relevant Links and Multimedia:** N/A
- **Contact Information:** Serge Stinckwich (stinckwich@unu.edu)

Project 27: The Use of Synthetic Data to Train AI Models: Opportunities and Risks for Sustainable Development

- **Project Description:** Using synthetic or artificially generated data in training AI algorithms is a burgeoning practice with significant potential. It can address data scarcity, privacy, and bias issues and raise concerns about data quality, security, and ethical implications. This issue is heightened in the Global South, where data scarcity is much more severe than in the Global North. Synthetic data, therefore, addresses the problem of missing data, leading, in the best case, to better representation of populations in datasets and more equitable outcomes. However, we cannot consider synthetic data to be better or even equivalent to actual data from the physical world. In fact, there are many risks to using synthetic data, including cybersecurity risks, bias propagation, and simply an increase in model error. This technology brief proposes recommendations for the responsible use of synthetic data in AI training and the associated guidelines to regulate the use of synthetic data.
- **Division/Department:** UNU Centre, UNU-CPR and UNU-IIST Macau
- **Project Type/Output:** Policy brief
- **Project Status:** Closed
- **Project Start Year:** 2023
- **Project Domain:** All
- **Data Source:** N/A
- **Data Publicly Available:** No
- **Technology/Platform:** N/A
- **Related Sustainable Development Goals (SDGs):**
- **Relevant Links and Multimedia:** <https://unu.edu/publication/use-synthetic-data-train-ai-models-opportunities-and-risks-sustainable-development>
- **Contact Information:** Serge Stinckwich (stinckwich@unu.edu)

Project 28: Building Citizen Science Intelligence for Pandemic Preparedness and Response: Needs Assessment and Pilot Implementation

- **Project Description:** No more pandemics – this is the ambitious goal set by the Independent Panel for Pandemic Preparedness and Response, whose report reviews the international community's response to COVID-19 and identifies lessons learned. COVID-19 has shown that our lack of globally accurate, real-time data on outbreaks is a matter of life and death. A leading group of scientists and experts, from every part of the world, must come together urgently to create a new, neutral, and trusted digital system that can revolutionise how data is gathered and used globally. This project involving participatory modelling and Artificial Intelligence based simulation, funded by I-DAIR, the International Digital Health and AI Research Collaborative, is based on the premise that, to contain the pandemic through accurate, real-time and data-driven measures, it is urgent to establish collective intelligence capabilities that involve all stakeholders. UNU Macau is currently involved in a pilot study focusing on Vietnam, Kenya and Brazil and aimed at addressing how to effectively manage patients and resources available in a hospital and its surrounding communities such that citizens can play an active role in the response and develop broad disaster resilience in the context of a pandemic crisis. In partnership with local communities in these three countries, two artefacts has been developed: one role playing game and a participatory agent-based simulation.
- **Division/Department:** UNU-IIST Macau
- **Project Type/Output:** Policy research project, software development
- **Project Status:** Closed
- **Project Start Year:** 2023
- **Project Domain:** Public Health, AI

- Data Source: data collected during FGD and workshops
- Data Publicly Available: No
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 3 - Good Health and Wellbeing
- Relevant Links and Multimedia: <https://unu.edu/macau/project/building-citizen-science-intelligence-pandemic-preparedness-and-response-needs>
- Contact Information: Serge Stinckwich (stinckwich@unu.edu)

Project 29: Disinformation and Peacebuilding in Sub-Saharan Africa: Security Implications of AI-Altered Environments

- Project Description: This research project examines the effects of new AI technologies, namely generative AI, on peacebuilding and conflict in Sub-Saharan Africa, namely in DRC, Kenya, and Côte d'Ivoire. In this context, this report aims to further explore the way in which AI technologies as they currently stand impact peace and conflict, and what methods might be used to mitigate their adverse effects - through the development of better tools and the inclusion of peace and conflict considerations in AI governance frameworks.
- Division/Department: UNU Centre for Policy Research
- Project Type/Output: Report and Seminar
- Project Status: Complete, pending publication
- Project Start Year: 2023
- Project End Year: 2024
- Project Domain: AI Policy, Disinformation, Peace and Security
- Data Source: Interviews
- Data Publicly Available: Interview summaries to be published in report
- Technology/Platform: NA
- Related Sustainable Development Goals (SDGs): SDG 16
- Partnership(s)/Collaborator(s): Interpeace
- Relevant Links and Multimedia: NA
- Contact Information: Eleonore Fournier-Tombs (fourniertombs@unu.edu)

Project 30: Towards a Peacekeeper Diversity Index: Evaluating the Relative Effectiveness of Peace Support Personnel Gender, Origin, and Status

- Project Description: This study aims to cover a critical methodological gap by testing the utility of machine learning in identifying potential correlations between UN PSO demographics and conflict in four case studies: the Central African Republic, the Democratic Republic of Congo, Mali, and South Sudan. Quantitative data relating to the PSO personnel characteristics was sourced from the UN Peace and Security Data Hub. The conflict location/intensity information was sourced from the Armed Conflict Location and Event Data Project (ACLED).
- Division/Department: UNU Centre for Policy Research
- Project Type/Output: Report and Seminar
- Project Status: In progress
- Project Start Year: 2023
- Project End Year: 2024
- Project Domain: Peacekeeping, Diversity
- Data Source: Peace Security Data Hub
- Data Publicly Available: Yes

- Technology/Platform: <https://psdata.un.org/>
- Related Sustainable Development Goals (SDGs): SDG 16
- Partnership(s)/Collaborator(s): XCEPT
- Relevant Links and Multimedia: NA
- Contact Information: Eduardo Albrecht (albrecht@unu.edu)

Project 31: Identifying, classification and predictions of Land use and Land cover (LULC) using Machine learning and remote sensing data

- Project Description: the projects aims to classify the different LULC from satellites such as the sentinels or Landsat to identify different classes on the ground, i.e. water, forest, urban, bare, etc. – this will allow to better identify these different classes, allowing users to better understand the changes in cities or villages, to help protect the environment, improve the adaptation measures, but also understand the challenges that people are facing due to natural disasters. These in turn, will enhance our understanding of disaster risks, the impacts of climate change, and help in intervening in case of emergency response.
- Division/Department: UNU-EHS/MCII/Analytics Team
- Project Type/Output: Relevant course for our Joint Master program and a collaboration with UN-SPIDER & The University of Bonn
- Project Status: ongoing
- Project Start Year: 2020
- Project Domain: Climate change, environment, satellite remote sensing, AI
- Data Source: open-source satellite data mainly from the European Space Agency (ESA)
- Data Publicly Available: Yes
- Technology/Platform: Google Earth Engine (GEE), MATLAB, Python, JAVA
- Related Sustainable Development Goals (SDGs): SDG 6, 10, 11, 13 & 15
- Relevant Links and Multimedia: no
- Contact Information: David Daou (daou@ehs.unu.edu)

Project 32: Identifying, classification and predictions of Land Surface Temperature (LST) using Machine learning and remote sensing data

- Project Description: the project aims to classify the different LST from satellites such as the sentinels to identify the variations of surface temperatures on the ground, – this will allow to better identify how LST is impacting ground changes and impacts on people health and mental health, but also for identifying impacts on the crops and livestock allowing users to better understand the changes in cities or villages, to help protect the environment, improve the adaptation measures, but also understand the challenges that people are facing due to increase in temperatures and impacts on of the latter on natural disasters, such as heatwaves and droughts. These in turn will enhance our understanding of disaster risks, the impacts of climate change, and help in intervening in case of emergency response.
- Division/Department: UNU-EHS/MCII/Analytics Team
- Project Type/Output: Relevant course for our Joint Master program and a collaboration with UN-SPIDER
- Project Status: ongoing
- Project Start Year: 2020
- Project Domain: Climate change, environment, satellite remote sensing, AI
- Data Source: open-source satellite data mainly from the European Space Agency (ESA), Canadian Space Agency (CSA) and the NASA
- Data Publicly Available: Yes

- Technology/Platform: Google Earth Engine (GEE), MATLAB, Python, JAVA
- Related Sustainable Development Goals (SDGs): SDG 6, 10, 11, 13 & 15
- Relevant Links and Multimedia: no
- Contact Information: David Daou (daou@ehs.unu.edu)

Project 33: Drought classification and predictions using basic Machine learning, deep learning neural networks and remote sensing data

- Project Description: the project aims to enhance the drought classification and predict if a drought will happen in the future years. We started the development in 2020, with CNN (Convolution neural network), as well as using other algorithms like random forest, support vector machines, decision trees and CART (classification and regression trees), the idea was to replace the probabilistic drought model we developed at UNU-EHS in 2019. The problem with the drought is that there are many indices to classify the different types of extreme to no drought, but there is no agreement whatsoever between scientists around the World on what is the best index to use. Using satellite data and AI helped us improve the identification of the drought, without the need to use any drought index.
- Division/Department: UNU-EHS/MCII/Analytics Team
- Project Type/Output: Project on drought in Ethiopia and Vietnam
- Project Status: ongoing
- Project Start Year: 2020
- Project Domain: Climate change, environment, satellite remote sensing, AI
- Data Source: open-source satellite data mainly from the European Space Agency (ESA)
- Data Publicly Available: Yes
- Technology/Platform: Google Earth Engine (GEE), COLAB, MATLAB, Python, JAVA
- Related Sustainable Development Goals (SDGs): SDG 6, 10, 11, 13 & 15
- Relevant Links and Multimedia: no
- Contact Information: David Daou (daou@ehs.unu.edu)

Project 34: Flood classification and predictions using segmentation deep learning neural networks and remote sensing data

- Project Description: the project aims to enhance flood detection and predict flood risks that will happen in the near and far future years. We started the development in 2025, with segmentation CNN, as well as using other different deep learning algorithms, the idea is trying to better understand the detection of flood from satellite remote sensing using SAR and RGB images, in order to enhance the activation of EWS. The project just started, and we hope it will serve the UNSPIDER community and all countries facing flood events.
- Division/Department: UNU-EHS/MCII/Analytics Team
- Project Type/Output: developing early warning system for flood
- Project Status: ongoing
- Project Start Year: 2025
- Project Domain: Climate change, environment, satellite remote sensing, AI
- Data Source: open-source satellite data mainly from the NASA & ESA
- Data Publicly Available: Yes
- Technology/Platform: Google Earth Engine COLAB, Python
- Related Sustainable Development Goals (SDGs): SDG 6, 10, 11, 13 & 15
- Relevant Links and Multimedia: no
- Contact Information: David Daou (daou@ehs.unu.edu)

Project 35: Classification of clouds and aerosols physics parameters using PINN & CNN model and Satellite active remote sensing images.

- Project Description: This is an ongoing work on the development of a Physics informed neural network (PINN) & CNN to better classify aerosols and cloud particles in the atmosphere from zero to 30 km using lidar and radar images from previous and current satellite remote sensing data. We are trying to improve the detection of the size, the shape and the type of atmospheric particles in order to enhance the effect of radiative forcing on the planet and the effect on health as some fine aerosols' particles can cause serious health issues, like lung cancer, asthma, respiratory infections, and heart disease
- Division/Department: UNU-EHS/MCII/Analytics Team
- Project Type/Output: detection of physics properties of aerosols and cloud particles and effects on people and the heating/cooling of the planet.
- Project Status: ongoing
- Project Start Year: 2023
- Project Domain: Climate change, environment, satellite remote sensing, AI
- Data Source: open-source satellite data mainly from the CSA, NASA & ESA
- Data Publicly Available: Yes
- Technology/Platform: Google Earth Engine COLAB, Python, MATLAB
- Related Sustainable Development Goals (SDGs): SDG 3, 13
- Relevant Links and Multimedia: Presentations in several conferences and invited talks
- Contact Information: David Daou (daou@ehs.unu.edu)

Project 36: Global Regime Complex System of Artificial Intelligence

- Project Description: The objective of this project is to map, cluster, and model the emergence and evolution of the Global Regime Complex System of Artificial Intelligence. There is no comprehensive database to analyse the development of AI governance systems linking global, regional, national, and sectoral policies. The existing dataset does not involve multi-level relationality between different spatial jurisdictions. Moreover, the analysis focuses on AI ethical frameworks, but they are quickly outdated (Jobin et al., 2019; Correa et al., 2023) or include only national policies (Papishev and Yarime, 2023; Guenduez & Mettler, 2023). To address this shortcoming, this project will collect data on global AI regimes in three waves: global and regional international governance regimes, national policies and regulations, and private sectoral data. The dataset will map and cluster the Complex Global Regime System linking global, regional, national, and sectoral AI policies based on manual (qualitative) and automatized (topic modeling) methods. Data will require identifying and operationalizing governance functions focusing on the thematic/policy scope, authority role, policy instruments, institutional arrangements, the legal nature of governance frameworks, and the interactions between public and private actors in shaping AI governance and regulation processes (Tallberg et al., 2023). The qualitative analysis will follow the policy instrument taxonomy, which combines information, authority, finances, and organization (Hood and Margetts 2007). The topic modeling in the collected dataset is based on unsupervised machine learning techniques to determine cluster topics from a document (Debnath & Bardhan, 2020). Using the STM, a statistical generative model of word count technique, allows for latent narratives in textual data (Isoaho et al., 2021). Finally, the dataset will be used in discourse network analysis (DNA) to represent the interactions in structures of a Complex Global Regime System and levels of governance. The network data capture the relationships between political actors based on their congruence or conflict around concepts and the relative strength of discourse coalitions (Leifeld, 2017). As such, this method visualizes the complexity of the transformations of multi-level multilateral governance regimes of AI policies.
- Division/Department: UNU-MERIT

- Project Type/Output: Open-access academic research outputs (journal articles, policy briefs) and LLM data sets
- Project Status: ongoing
- Project Start Year: 2024
- Project Domain: AI Global Governance, International Relations, multilateralism
- Data Source: open sources, interviews, media, participant observation
- Data Publicly Available: Yes
- Technology/Platform: LLM models, Machine Learning topic modelling
- Related Sustainable Development Goals (SDGs): SDG 16, 17
- Partnership(s)/Collaborator(s): Maastricht University
- Relevant Links and Multimedia: no
- Contact Information: Michal Naturski (naturski@merit.unu.edu)

Project 37: Embassy Science Fellow – Artificial Intelligence: geopolitical and security-related implications of new technology in South Korea.

- Project Description: The project aims to map the evolution of the Republic of Korea's foreign policy strategy regarding the governance of Artificial Intelligence within international cooperation frameworks. Through interviews with academic experts, industry stakeholders, and institutional representatives active in the field of Artificial Intelligence, as well as study visits, the project will gain insights into the Republic of Korea's role in civilian and military AI governance in the context of geopolitical and security implications of emerging technologies. The research analyses the link between the Korean role of middle power status and international processes, such as the Global Digital Compact, UNESCO Recommendations on the Ethics of AI, the Convention on Certain Conventional Weapons (CCW) process related to emerging technologies, including lethal autonomous weapons systems (LAWS), and other United Nations debates. The project particularly emphasizes the Republic of Korea's involvement in discussions regarding military AI governance, especially as it will host the second summit on Responsible Artificial Intelligence in the Military Domain in September 2024.

The project is funded by the Dutch Science Council (NWO) and is supported by the Embassy of the Kingdom of the Netherlands in the Republic of Korea.

- Division/Department: UNU-MERIT
- Project Type/Output: Policy research outputs (journal articles, policy brief) and Large Language Models model interactive tool
- Project Status: ongoing
- Project Start Year: 2023
- Project Domain: AI Global Governance, Military AI, AI Ethics, Diplomacy, Peace and Security
- Data Source: Data collected via field work: interviews, media, and participant observation
- Data Publicly Available: Yes
- Technology/Platform: Multiple LLM models
- Related Sustainable Development Goals (SDGs): SDG 16, 17
- Partnership(s)/Collaborator(s): Maastricht University, Dutch Science Council (NWO), Dutch Ministry of Foreign Affairs and the Embassy of the Kingdom of the Netherlands in the Republic of Korea
- Relevant Links and Multimedia: no
- Contact Information: Michal Naturski (naturski@merit.unu.edu)

Project 38: AI and sustainability in higher education

- **Project Description:** This project underlines the higher education sector's contribution to harness the potential of AI for sustainable development by enhancing synergies among three UNU-IAS-led higher education institution networks – Higher Education Sustainability Initiative (HESI), Promotion of Sustainability in Postgraduate Education and Research (ProSPER.Net) and SDG-Universities Platform (SDG-UP). Members of these partnerships established the Futures of Higher Education and AI Action Group, a transdisciplinary platform that develops knowledge-sharing activities. These activities examine the impacts of AI in higher education across four key pillars: research, teaching and learning, university management, and ethics.
- **Division/Department:** UNU-IAS
- **Project Type/Output:** Policy briefs, Webinars, Reports
- **Project Status:** On-going
- **Project Start Year:** 2024
- **Project Domain:** AI in education, AI and sustainability, AI governance, AI ethics
- **Data Source:** Academic journal papers
- **Data Publicly Available:** Yes
- **Technology/Platform:** Zoom
- **Related Sustainable Development Goals (SDGs):** SDG 4
- **Relevant Links and Multimedia:** <https://sdgs.un.org/HESI/Futures>
- **Contact Information:** Jonghwi Park (Jonghwi.park@unu.edu) and Jerome Silla (silla@unu.edu)

Project 39: AI & Sustainability Podcast Series

- **Project Description:** This project launched a podcast series that explores the innovative, ethical and responsible use of AI in higher education through the lens of sustainability. Each episode features thought-provoking conversations with speakers who are shaping the future of education, AI, and sustainability. Conversations will delve into real-world stories that illustrate AI's impact across different sectors, demonstrating AI's power to transform and/or disrupt and giving voice to leaders and trailblazers from the Global South and pioneering women in tech.
- **Division/Department:** UNU-IAS
- **Project Type/Output:** Podcast
- **Project Status:** On-going
- **Project Start Year:** 2025
- **Project Domain:** AI in education, AI and sustainability, AI governance, AI ethics
- **Data Source:** Interviews
- **Data Publicly Available:** Yes
- **Technology/Platform:** Adobe Premiere Pro, Adobe Podcast, Zoom, Apple Podcast, Spotify, YouTube, Canva, GenAI tools
- **Related Sustainable Development Goals (SDGs):** SDG 4, 5, 8, 9, 10, 11, 13, 17
- **Relevant Links and Multimedia:**
 - **Apple Podcast:** <https://podcasts.apple.com/us/podcast/ai-and-sustainability/id1791027824>
 - **Spotify:** <https://open.spotify.com/show/6dsXfY1hpZmbcU8vwS3vQ?si=0yY-KGd4T5aZvgkuis-7Ow&nd=1&dlsi=8c1110beb6294c9f>
 - **YouTube:** https://www.youtube.com/playlist?list=PLgOAxywtFmF4w5C9jgru3to4S4_jGzaQy

- Contact Information: Jerome Silla (silla@unu.edu)

Project 40: Mapping AI usage in higher education

- Project Description: This project will generate baseline data on AI use in higher education institutions (HEIs) globally, offering one of the first global scans of AI use within the higher education sector. It aims to identify trends, gaps, and promising practices, and offering evidence to inform policy and institutional decision-making. By shedding light on how AI is currently being integrated across different institutional missions and geographies, it will provide a valuable evidence base to guide future strategies and collaborations—ensuring AI contributes meaningfully and ethically to quality, equity, and relevance in higher education systems. This project is in collaboration with UNESCO IESALC.
- Division/Department: UNU-IAS
- Project Type/Output: Report
- Project Status: On-going
- Project Start Year: 2025
- Project Domain: AI in education, AI governance, AI ethics
- Data Source: Surveys, interviews
- Data Publicly Available: No
- Technology/Platform: Quantitative and qualitative survey data analysis tools
- Related Sustainable Development Goals (SDGs): SDG 4
- Relevant Links and Multimedia: N/A
- Contact Information: Jerome Silla (silla@unu.edu)

Project 41: UNU-WIDER collaboration with Schmidt Sciences: Assessing AI's impact on firms and labour markets in developing countries

- Project Description: This project focuses on the firm and labor market effects of artificial intelligence (AI) in developing countries. It is part of UNU-WIDER's 2024–27 work programme on 'Inequality, Conflict, and Fiscal Space'. The initiative aims to build a robust portfolio of rigorous research examining the transformative impact of AI technologies on firms, labor markets, and associated outcomes in low- and middle-income country (LMIC) settings. In collaboration with the Schmidt Sciences 'AI at Work: Field Experiments on the Workforce Effects of New AI Tools' initiative, this project supports innovative empirical studies employing randomized controlled trials (RCTs). The goal is to generate evidence on how AI-driven tools reshape job search mechanisms, recruitment, firm productivity, labor retention, and inequality outcomes, addressing questions like whether AI tools can improve the overall match between employers and employees.
- Division/Department: UNU-WIDER
- Project Type/Output: Research Portfolio, Empirical Studies, Evidence Generation via RCTs
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: 2027
- Project Domain: Development Economics, Labour Markets, Inequality, Firm Behavior, Technology Adoption in LMICs, AI Impact Assessment
- Data Source: Data collected as part of Randomized Controlled Trials (RCTs)
- Data Publicly Available: No
- Technology/Platform: –
- Related Sustainable Development Goals (SDGs): 1, 8, 9, 10
- Partnership(s)/Collaborator(s): Schmidt Sciences (AI at Work initiative)
- Relevant Links and Multimedia: –

- Contact Information: lastunen@wider.unu.edu

Project 42: UNU-WIDER and ACET collaboration: Enhancing fiscal policy analysis in Ghana using AI and synthetic data

- **Project Description:** This project is a collaboration between UNU-WIDER and the African Center for Economic Transformation (ACET). It focuses on enhancing the Ghanaian tax-benefit microsimulation model (GHAMOD), a tool used for analysing the distributional and budgetary impacts of fiscal policies. Recognizing that GHAMOD's reliance on infrequent survey data limits its ability to reflect dynamic socio-economic changes, this project explores the feasibility of generating synthetic input data. It uses statistical, AI, and Machine Learning (ML) methods, combined with complementary data sources, to improve the model's accuracy, timeliness, and predictive capabilities for better policy analysis in Ghana.
- **Division/Department:** UNU-WIDER, SOUTHMOD project, DRM
- **Project Type/Output:** Feasibility Study, Methodology Development, Technical Note
- **Project Status:** Ongoing
- **Project Start Year:** 2025
- **Project End Year:** 2025
- **Project Domain:** Development Economics, Public Finance, Taxation, Social Policy, Microsimulation Modelling, Computational Social Science, Synthetic Data Generation, AI for Policy Analysis
- **Data Source:** The Ghana Living Standards Survey (GLSS), complementary public and private data sources
- **Data Publicly Available:** Partly
- **Technology/Platform:** Python, R
- **Related Sustainable Development Goals (SDGs):** 1, 10, 16, 17
- **Partnership(s)/Collaborator(s):** African Center for Economic Transformation (ACET).
- **Relevant Links and Multimedia:** -
- **Contact Information:** lastunen@wider.unu.edu

Project 43: Digital Technologies, Hiring, Training, and Firm Outcomes: Evidence from AI and ICT Adoption in Indian firms

- **Project Description:** In this study, using a novel dataset that matches firm-level data with online job vacancy data, we investigate the effects of firms' digital technology adoption on future hiring and the dynamics of hiring and training, focusing on different types of technologies and categories of occupations. First, we examine the impact of adopting different types of digital technologies, namely AI, Advanced ICT, and Basic ICT, on future firm hiring. Our findings reveal that less advanced digital jobs (eg. Basic ICT, Advanced ICT) are substituted by more advanced digital jobs (eg. AI), while the advanced technology adoption by firms leads to increased overall hiring of non-digital roles. Second, we show that there is a positive relationship between training and new hiring only for one occupational category, namely, managers, with no significant relationship for other occupations. Third, we investigate the joint effect of training and technology adoption for firm performance. Our findings reveal that digital technology adoption enhances a firm's financial performance only when combined with internal staff training. The sole exception is AI, which yields positive performance benefits even in the absence of training.
- **Department/Division:** United Nations University - Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT) and United Nations University - Comparative Regional Integration Studies (UNU-CRIS)
- **Project Type/Output:** Working Paper/ Published Paper

- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: Ongoing
- Data Source: Firm-level data, Online job vacancy data
- Publicly Available Data: No
- Related SDGs: SDG 8: Decent Work and Economic Growth.
- Partnership(s)/Collaborator(s): UNU-CRIS, University of Konstanz, University of Roma Tre
- Lessons Learned: AI leads to reduction in advanced digital jobs; Digital Technology Adoption should be combined with internal firm training • Links: <https://unu-merit.nl/publications/wppdf/2025/wp2025-004.pdf>
- Contact information: Sneha Marydas (marydas@merit.unu.edu)

Project 44: The geography of AI adoption - the impact of regional dynamics on Dutch firms from 2012 to 2020

- Project Description: Artificial intelligence is used extensively in many workplaces today. Yet, little is known about the adoption process of this new general-purpose technology, how it occurs, when and where. This paper investigates whether a regional head start in AI adoption determines the regional variation in adoption rates over time, by studying AI adoption in firms across municipalities in the Netherlands between 2012-2020. Because this period is marked by the introduction and first adoption of several AI techniques, this case offers an interesting quasi-experimental setting to study adoption of a new technology in firms and across regional labour markets. Findings indicate that AI adoption by firms is concentrated in urban areas and is positively associated with regional AI adoption in the beginning of the period, suggesting a strong path dependency process in AI adoption.
- Department/Division: UNU-MERIT
- Project Type/Output:
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: Ongoing
- Publicly Available Data: Yes
- Technology/Platform:
- Related SDGs: all.
- Partnership(s)/Collaborator(s):
 - Harm-Jan Rouwendal (University of Groningen), Sierdjan Koster (University of Groningen), Teresa Farinha (UNU-MERIT)
- Lessons Learned:
- Links:
- Contact information: Teresa Farinha (farinha@merit.unu.edu)

Project 45: Workshops on Digital Methods and AI for Health Policy and Systems Research

- Project Description:
- The aim of these courses is to equip participants with both comprehensive knowledge and practical skills for analysing health policies and translating evidence into policy within the context of health systems research. The training typically features a balanced mix of presentations, hands-on exercises, and interactive discussions to foster a collaborative and engaging learning environment.

- February, 26, 2025: Workshop on **AI-powered Insights and Analysis**, in partnership with Institute for Health Systems Research (IHSR), Malaysia
- February 20-21, 2025: **Workshop on Leveraging AI to Optimize Scientific Reviews**, in partnership with IHSR, Malaysia
- June 26 – 28, 2024: **Digital Document Analysis for Health Policy Research**, in partnership with IHSR, Malaysia
- June 5 – 7, 2024: **Workshop on Machine Learning-based Forecasting Methods**, in partnership with Pharmaceutical Services Programme, Ministry of Health (MOH), Malaysia
- Division/Department: UNU IIGH
- Project Type/Output: Training courses/workshops
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: ongoing
- Project Domain: Government Agencies
- Data Source: N/A
- Data Publicly Available: N/A
- Technology/Platform: In-person
- Related Sustainable Development Goals (SDGs): SDG 3, 17
- Partnership(s)/Collaborator(s): Ministry of Health Malaysia
- Relevant Links and Multimedia: A few recent links: [In-Person Workshops and Training Programme | United Nations University](#)
- Contact Information: Dr Claudia Lopes (claudia.lopes@unu.edu)

Project 46: 2025 UNU Macau AI conference

- Project Description: Under the theme AI for All: Bridging Divides, Building Sustainable Futures, the United Nations University Institute in Macau (UNU Macau) convened a multisectoral conference to provide a platform for coordination and collaboration of diverse stakeholders in explicating the problems and solutions of AI.
 Nearly 500 participants from governments, business, academia and civil society from more than 30 countries, including 30 Ministers of ICTs and senior officials from 20 countries, participated in the meeting and connected across diverse viewpoints on the AI. The conference convened under the theme AI for All: Bridging Divides, Building a Sustainable Future, featuring 26 sessions in 3 thematic tracks. The plenary session launched the UNU Policy Guideline: Recommendations on the Use of Synthetic Data to Train AI Models. The UNU Global AI Network launched officially under the witness of over 30 members.
- Division/Department: UNU Macau
- Project Type/Output: Conference
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: ongoing
- Project Domain:
- Data Source: N/A
- Data Publicly Available: N/A
- Technology/Platform: In-person
- Related Sustainable Development Goals (SDGs): SDG 1-17
- Partnership(s)/Collaborator(s): N/A

- Relevant Links and Multimedia: <https://unu.edu/macau/conference/unu-macau-ai-conference-2024>
- Contact Information: Dr Serge Stinckwich (stinckwich@unu.edu)

Project 47: 2025 United Nations University Global Artificial Intelligence Network

- Project Description:
 - The United Nations University Global Artificial Intelligence Network (UNU Global AI Network) was launched by the United Nations University (UNU) to materialize the Global Digital Compact. The UNU Global AI Network is a global platform that facilitates multi-stakeholder cooperation on AI to advance sustainable development. It is comprised of members of academic institutions, the private sector, international organizations, government institutions, and civil society organizations.
 - The Network unites the expertise of academia, the innovation of the private sector, the foresight of policymakers, and the engagement of civil society to:
 - Share knowledge on AI that benefits society as a whole.
 - Conduct research on AI to advance its benefits for the people and planet today and in the future and to counter potential harms from AI.
 - Co-create solutions to advance sustainable development for AI and with AI.
 - Promote evidence-based policymaking around AI and AI governance frameworks.
 - Establish partnerships on AI capacity-building to develop education and training programmes.
- Division/Department: UNU Macau
- Project Type/Output: Network
- Project Status: Ongoing
- Project Start Year: 2024
- Project End Year: ongoing
- Related Sustainable Development Goals (SDGs): SDG 1-17
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://unu.edu/unu-global-ai-network>
- Contact Information: Dr Paula Hidalgo-Sanchis (paula.hidalgo.sanchis@unu.edu)

Project 48: Recommendations on the Use of Synthetic Data to Train AI models

- Project Description: Using synthetic or artificially generated data in training Artificial Intelligence (AI) algorithms is a burgeoning practice with significant potential to affect society directly. It can address data scarcity, privacy and bias issues but does raise concerns about data quality, security and ethical implications. While some systems use only synthetic data, most times synthetic data is used together with real-world data to train AI models.
- Recommendations in this document are for any system where some synthetic data are used. The use of synthetic data has the potential to enhance existing data to allow for more efficient and inclusive practices and policies. However, we cannot assume synthetic data to be automatically better or even equivalent to data from the physical world. There are many risks to using synthetic data, including cybersecurity risks, bias propagation and increasing model error. This document sets out recommendations for the responsible use of synthetic data in AI training.
 - Philippe de Wilde, Payal Arora, Fernando Buarque, Yik Chan Chin, Mamello Thinyane, Stinckwich Serge, Fournier-Tombs Eleonore and Marwala Tshilidzi. *Recommendations on the Use of Synthetic Data to Train AI Models* : UNU Centre, UNU-CPR, UNU Macau, 2024.

- Division/Department: UNU Macau
- Project Type/Output: Policy brief
- Project Status: Closed
- Project Start Year: 2024
- Project End Year: 2024
- Project Domain:
- Data Source: N/A
- Data Publicly Available: N/A
- Technology/Platform: N/A
- Related Sustainable Development Goals (SDGs): SDG 1-17
- Partnership(s)/Collaborator(s): N/A
- Relevant Links and Multimedia: <https://unu.edu/publication/recommendations-use-synthetic-data-train-ai-models>
- Contact Information: Dr Serge Stinckwich (stinckwich@unu.edu)

2. Related Sustainable Development Goals

SDG 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

3. Relevant Link

<https://unu.edu/>

- Contact Information
- Serge Stinckwich (stinckwich@unu.edu)

United Nations Women



1. Description of Activities on AI

Project 1: Action Coalition for Technology and Innovation for Gender Equality

- **Project Description:** With the rapid digitalization of work, school and social life stimulated by the COVID-19 pandemic, the importance of technology and innovation to achieving gender equality and inclusive development have never been clearer nor more urgent.

From a gender perspective, specific applications of AI and machine learning have shown the greatest risks of bias and misuse, like facial recognition and deep fakes. The AI world today is almost entirely dominated by men and we find societal biases relating to gender roles and identities embedded in social programs and services via automated decision-making. Data modelling such as predictive policing or social intervention increasingly transcends the individual to focus on groups or communities, making women more at risks of being discriminated.

UN Women's role and mandate is to reaffirm the need to focus on diversity and inclusiveness when developing AI technologies. Ensuring that societal values are reflected in algorithms and AI technologies will require no less creativity, hard work and innovation than developing the AI technologies themselves.

In order to drive action and unite efforts from across governments, private sector and civil society, UN Women is convening partners working on gender and technology as part of the Generation Equality Forum. An Action Coalition focusing on innovation and technology will be launched in 2021 to generate innovative ideas for policies and initiatives needed to accelerate progress for more gender-responsive AI.

The Action Coalition will explore how to harness opportunities arising from the use of AI and overcome the challenges associated with algorithms. By breaking down silos and fostering collaboration through this new multi-stakeholder platform, the Coalition aims to inspire public and private partners to make strong and actionable commitments that will advance gender equality and women's rights.

- **Project Update:** The Generation Equality Forum, held in Mexico and Paris in 2021, resulted in the launch of the Action Coalition for Technology and Innovation for Gender Equality, to ensure women and girls have equal opportunities to safely and meaningfully access, use, lead, and design technology but also to ensure that building inclusive digital economies is at the core of the COVID-19 recovery efforts.

This initiative is open to world leaders and grassroots leaders equally, which makes it a unique space for co-creating innovative solutions and for generating bold and transformative commitments in the next five years.

The Coalition's Global Acceleration Plan recommend stakeholders to join efforts on four priorities:

- First, to prioritize initiatives that support digital access and the development of digital skills, to ensure equal use, creation and control of digital technology by women and girls.
- Second, to invest in feminist technology and innovation, to embed gender in tech development and create solutions that leverage technology for social impact.

- Third, to build inclusive, transformative and accountable innovation ecosystems that ensure women and girls' full participation in digital economy and society.
- And finally, to prevent and eliminate online and tech-facilitated GBV and discrimination to allow women and girls in all their diversity to use digital spaces safely. More than a thousand commitments and 40 billion dollars were pledged for Generation Equality, many originating from governments, civil society, international organizations, youth networks and companies engaged in building more inclusive and gender-transformative technology and innovation ecosystems. This resulted in commitments to improve regulatory frameworks, to systematize gender impact assessments and AI audits, to improve the availability of disaggregated data and to bridge the massive gender gap that currently exists in tech professions – and Artificial Intelligence in particular.
- In 2024, the collective mobilization of the Action Coalition led to the launch of the Position Paper “ Placing Gender Equality at the Heart of the Global Digital Compact” which includes recommendations on AI governance.
- Project Type/Output: Multi-stakeholder partnership
- Project Status: Ongoing
- Project Start Year: 2021
- End Year: 2026
- Project Domain: Gender
- Related SDGs: SDG 4 – Quality Education, SDG 5 – Gender Equality; SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - UN Partners: ITU, UNICEF
 - Government: Chile, Rwanda, Armenia, Tunisia, Finland
 - Private Sector: Salesforce, Microsoft, Koc Holding
 - Civil Society: A+ Alliance, Social Builder, Global Fund for Women, Digital Grassroots
- Links and Multimedia:
 - <https://techforgenerationequality.org/>
 - <https://forum.generationequality.org/action-coalitions>
 - <https://www.unwomen.org/en/get-involved/beijing-plus-25/generation-equality-forum>
- Contact information: Helene Molinier (helene.molinier@unwomen.org)

Project 2: Women, Peace and Cybersecurity: Promoting Women's Peace and Security in the Digital World

- Project Description: UN Women ROAP has been conducting research in 2023 on the implications of AI, including leveraging AI, for the implementation of the Women, Peace and Security agenda in Southeast Asia , in partnership with United Nations University Institute (UNU) in Macau. The research has been conducted under a broader project on digital security in the context of the WPS agenda, [“Women, Peace and Cybersecurity: Promoting Women's Peace and Security in the Digital World”](#), in partnership with the Governments of the Republic of Korea and Australia. The project aims to ensure that women meaningfully participate in cybersecurity decision-making processes and online peacebuilding efforts, in the prevention of cybersecurity threats (including disinformation and hate speech) and cybercrimes, and contribute to reforming cybersecurity laws, policies and norms, where emerging technologies such as AI plays an important part. Within the context of this project, a key knowledge product has been produced on [Artificial Intelligence and Women, Peace and Security in Southeast Asia](#) with UNU Macau.

UN Women also developed an [E-module](#) : Introduction to Artificial Intelligence and Women, Peace and Security , and will soon publish a Training of Trainers Manual on a similar topic. Furthermore, UN Women has strengthened the cyber-resilience of CSOs in the Solomon Islands and Papua New Guinea, enhancing their understanding of AI as it relates to their work within the WPS framework. Similar initiatives will be undertaken in Timor-Leste, Cambodia, and the Philippines, with a regional event planned for 2026.

- Project Status: ongoing
- Project Sector: Peace and Security
- Related Sustainable Development Goals (SDGs): SDG 16; SDG 5
- Name/email of focal point for the project: gaelle.demolis@unwomen.org

Project 3: Andi-the Chatbot

- **Project Description:** UN Women MCO Caribbean is supporting a registered charity in Trinidad and Tobago - the Coalition Against Domestic Violence (CADV), to pilot an AI online platform - "Andi the Chatbot", that will provide immediate information to connect victims and survivors of domestic violence and the public to protective and essential services in the country. The chatbot is intended to augment human support with its 24/7 availability, in addition to a locally operated helpline "800-SAVE". The project will be implemented by three collaborating institutions - the Coalition against Domestic Violence, The Shelter and The Andrea Project, all of whom are working with vulnerable communities affected by violence.
- **Project Status:** Andi-the Chatbot, will be launched in March 2024 and UN Women MCO Caribbean will be providing technical support for the development of the Chatbot as well as supporting a portion of the services required for its operationalization.
- **Project Sector:** Social services
- **Related Sustainable Development Goals (SDGs):** SDG5

Project 4: AI Chatbot Development: Artificial Buddy for Indonesian Migrant/ Sahabat Artificial Migran Indonesia (SARI)

- **Project Description: SARI (Artificial Buddy for Indonesian Migrants)** is an AI-powered, gender-responsive chatbot developed to support Indonesian women migrant workers, particularly those using the Ministry of Foreign Affairs' *Safe Travel* app. Built through a Human-Centered Design approach and in partnership with UN Women and ThinkWeb, SARI delivers empathetic, multilingual information on destination countries and critical issues like gender-based violence and trafficking. It uses verified data from trusted sources, was co-designed with migrant workers, and is trained on inclusive datasets to avoid bias and harmful stereotypes.
 - <https://www.youtube.com/live/8WfmzSLhnhw?si=hnazKi8jXeM3KYyo>
 - <https://www.instagram.com/p/Dlu7osXPRvf/?igsh=MWFiczFxODBqdm5iaQ==>
- **Project Status:** Completed (2023-2024)
- **Project Domain:** Ending Violence Against Women (EVAW), Migration, development/ utilization of AI Chatbot
- **Related Sustainable Development Goals (SDGs):** SDG 5, SDG 16.
- **Contact Person:** nunik.nurjanah@unwomen.org

Project 5: Digital Sheroes

- **Project Description: Digital Sheroes**, a UN Women Indonesia initiative, integrates AI training to bridge the gender gap in the digital economy by equipping women with in-demand STEM and digital skills. In 2024, the program trained 45 women from 15

provinces through online sessions covering Artificial Intelligence, ethical AI, big data, UI/UX, and web design, all delivered with a gender-sensitive approach. Participants applied their learning by developing landing pages promoting gender equality, gaining practical experience in AI and digital technologies for real-world impact. <https://asiapacific.unwomen.org/en/stories/press-release/2024/09/to-grow-numbers-of-digital-sheroes-in-indonesia>

- **Project Status:** Completed (2024)
- **Project Domain:** Women Economic Empowerment (WEE), women and girls in ICT, capacity building
- **Related Sustainable Development Goals (SDGs):** SDG 4, SDG5.
- **Contact Person:** iriantoni.almuna@unwomen.org

Project 6: UN Women AI School

- **Project Description (one paragraph):** The [UN Women AI School](#) designed to build inclusive, gender-responsive AI literacy for changemakers across the Asia-Pacific region. It equips young leaders, UN staff, and policymakers with the knowledge and skills to harness artificial intelligence for advocacy, innovation, and social impact. Through adaptive learning tracks, expert talks, hands-on projects, and a graduation competition, the AI School empowers participants to co-create ethical, effective AI solutions that advance gender equality and sustainable development.
- **Project Status :** Ongoing
- **Project Domain:** Advocacy and Innovation
- **Related Sustainable Development Goals (SDGs):** 5, 9, 10, 13
- **Name/email of focal point for the project:** Emad Karim: emad.karim@unwomen.org

Project 7: Big Data and Data Science for Filling Gender Data Gaps

- **Project Description:** Gender Statistics team is 1) Utilize machine learning techniques (e.g. random forest) to optimize data analysis, including to explore explanatory power of model variables found in geospatial data and microdata. 2) Utilize natural language processing to conduct sentiment analysis utilizing social media data. ROAP Gender Statistics unit Developed training materials and implement training course for NSOs on Big Data and Data Science for Gender Statistics wherein web scraping methods and AI are utilized to harness gender data from online media. ROAP (Gender Statistics): Established a Technical Advisory Group on Big Data and Data Science for Filling Gender Data Gaps, to advise on devising innovative research methods, including utilizing AI, to generate timely evidence on issues where gender data is persistently lacking.
- **Project Status :** Ongoing
- **Project Domain:** Gender Statistics
- **Related Sustainable Development Goals (SDGs):** 5, 9, 10, 17
- **Name/email of focal point for the project:** Sneha Kaul <sneha.kaul@unwomen.org>

Project 8: Neuvo

- **Project Description:** Under the global UN Women - Nokia partnership that focuses on closing the gendered digital divide to strengthen WEE and EVAW, UN Women is working with a Finnish start-up Neuvo Inc to develop a technological solution that can maintain diverse types of functionalities (eg. Educational module, Online Chat, Service search). For the initial pilot version, the partners built and implemented an educational module addressing financial literacy for women. This pilot was tested by 26 women during a training on digital literacy skills led by Nokia and UN Women in October 2024. In the next stage (Q2 2025), the partners will include online chat functionality to respond to specific

questions by users and serve as a more intuitive way of searching for information without the use of generative AI or the risk of leaking sensitive data.

- Project Domain: WEE and VAW, including online and technology-facilitated violence against women.
- Related Sustainable Development Goals (SDGs): SDG 5

Project 9: Evaluations Unpacked

- **Project Description:** "Evaluations Unpacked" is an innovative AI-generated podcast series designed to present insights from UN Women evaluation reports in an engaging and accessible format. Each episode is customized for the audience, showcasing findings and recommendations from recent evaluations in the Americas and Caribbean regional offices. The project aims to enhance the dissemination and use of evaluation knowledge.
- **Project Status:** Currently, "Evaluations Unpacked" is in its pilot phase. Two test episodes based on recent reports have been produced, and they are accessible through a dedicated Spotify channel for initial feedback and refinement
- **Project Domain:** The podcast is on Spotify. However it could also connect to other streaming platforms.
- **Related Sustainable Development Goals (SDGs):** The podcast supports multiple SDGs, with a focus on:
 - SDG 5: Gender Equality
 - SDG 10: Reduced Inequalities
 - SDG 16: Peace, Justice, and Strong Institutions

Project 10: UN WOMEN ICT initiatives

- Microsoft 365 Copilot

Project Description: The Microsoft 365 Copilot pilot initiative aims to integrate AI-powered assistance (Copilot) into Microsoft 365 applications for selected pilot users. Copilot helps users with tasks such as drafting emails, summarizing meetings, generating content, and providing insights based on data. The pilot focuses on evaluating the effectiveness of Copilot in enhancing productivity and efficiency across various Microsoft 365 applications like Word, Excel, PowerPoint, Outlook, and Teams

Project Status : The pilot phase began in October 2024 and is scheduled to conclude in June 2025. During this period, participants have been exploring the functionalities of Copilot, and feedback is being collected through surveys and a dedicated Teams channel. As the pilot nears its end, a survey is currently underway to help management make an informed decision on whether to expand the pilot or consider alternative approaches.

Project Domain: The project is implemented for the pilot participants within UN Women.

Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation and Infrastructure

- PPG Chatbot

Project Description: [UN Women PPG chatbot](#) is an AI tool designed to provide employees with a convenient and efficient way to access information about UN Women organizational policies, procedures, and guidance. It utilizes natural language processing and AI search technologies to provide accurate and relevant answers, considering the current conversation context and returning answers with citations to source documents

Project Status: The chatbot was launched for all UN Women internal users in August 2024, with ongoing maintenance for continuous service. It has been used since then with around 500 requests per month.

Project Domain: The project is based on UN Women's internal policy, guidance and procedures and can be used by UN Women personnel only.

Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation and Infrastructure

- IST Help Bot (Beta mode)

Project Description: IST Help Bot is an AI-powered chatbot designed to assist UN Women staff with various ICT-related support queries. Built using Copilot Studio, the bot is linked to ICT support related learning materials and aims to provide quick access to information on topics such email accounts setup, application support, and general helpdesk support issues.

Project Status: The IST Help Bot is currently in its beta release phase. It has been deployed to part of UN Women personnel for testing and feedback. The team is continuously improving the bot based on user feedback to enhance its accuracy and response capabilities

Project Domain: The project is built for UN Women's internal personnel

Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation and Infrastructure

- Unify HR Chatbot Solution

Project Description: The UNify HR Chatbot is an interagency collaboration involving multiple UN organizations, developed by the United Nations International Computing Centre (UNICC). This AI-based solution is designed to streamline HR policy inquiries and it aims to enhance the efficiency and accuracy of HR processes across multiple agencies.

Project Status: UNify HR Chatbot is currently operational with ongoing support and maintenance.

Project Domain: The project is launched for UN Women's HR policy experts

Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation and Infrastructure

Project 11: UN Women Equality Lab

- Project Description: UN Women Equality Lab
 - The UN Women Equality Lab is a dynamic incubator empowering UN Women teams to harness the power of AI for advancing gender equality. Rooted in human-centered design, creative problem-solving, and a bold embrace of experimentation and growth, the Lab fosters the co-creation of AI-driven solutions that are efficient, scalable, and transformative. Through capacity building, pilot programs, and scaling support, the Lab has enabled several groundbreaking initiatives – including the RBM Guide for Gender Practitioners, the Transparency Portal's AI-powered search engine, and ResultMate, a tool designed to streamline results-based management. The Equality Lab exemplifies how AI, when guided by inclusive values and innovative thinking, can be a catalyst for lasting social impact.
- ResultMate
 - **Project Description: Boosting Results Reporting with AI - Introducing ResultMate:** In 2024, UN Women launched ResultMate—a cutting-edge AI copilot chatbot designed

to support and enhance how UN Women country and regional offices tell their results stories. Trained on UN Women's Results-Based Management (RBM) principles, policies, procedures, and guidelines, ResultMate helps craft stronger, clearer reports by offering real-time guidance on structure, language, and relevant requirements, while annual reports are being drafted. Integrated within Microsoft Teams, ResultMate supports capacity building across the organization to deliver sharper, more compelling and result-focused insights for both internal use and external audiences. While still in pilot phase, the tool is already transforming how results are captured and communicated.

- Transparency Portal AI search
 - **Project Description: AI-powered search - The UN Women Transparency Portal:** Launched in 2022, the UN Women Transparency platform, based on the IATI (International Aid Transparency Initiative) standard, is a cornerstone of accountability, providing open access to financial data and results achieved across the organization. In 2024, the platform took a major leap with a beta AI-powered search function in line with our UN 2.0 commitment –enabling users to instantly explore funding flows, programme outcomes, and impact data. These innovations enhance how UN Women communicates the value of resources and results, making data more visible and accessible. The platform empowers stakeholders to track the real-time impact of their investments, reinforcing trust, transparency, and support for gender equality.
- UNSPN AI Working Group
 - **Project Description: AI/Data Sessions: Building AI Capacity Across the UN System:** Led by UN Women under the UNSPN Working Group, the AI/Data Sessions provide a collaborative platform to showcase how AI is actively transforming work across the UN system in alignment with the UN 2.0 vision. These sessions bridge theory and practice by featuring real-world case studies, templates, and actionable insights that demonstrate AI's practical applications. Covering essential topics—such as problem and solution formulation, evaluation methods, ethical considerations, and human-centered design principles—the sessions equip participants with the knowledge and tools needed to navigate the evolving AI landscape. In addition to technical skills, the sessions connect participants to valuable resources, fostering deeper understanding and more effective implementation of AI technologies. By promoting cross-UN collaboration and innovation, these sessions are critical for enhancing decision-making, problem-solving, and advancing gender equality initiatives across the organization.
- RBM (Results-Based Management) Guide for Gender Practitioners
 - **Project Description: RBM Guide for Gender Practitioners:** An external, go-to resource for reliable, practical advice on results-based management tailored towards gender perspectives based on the United Nations Development Group (UNDG) RBM guidelines and other trusted resources. This chat-bot allows individuals to assess projects and programmes against gender markers for gender practitioners. This can assist in drafting smart and impactful results, indicators, and narratives, as well as in the evaluation process to enhance quality through disseminating evaluation guidance and templates.
- UNWAdvantage
 - **Project Description: UNAdvantage Chatbot:** This AI project, internally supports UN Women in developing the Strategic Plan Integrated Results and Resources Framework for 2026-2029 by leveraging lessons learned from previous frameworks. This AI chatbot facilitates the exploration of contributions from other UN agencies to UN Women's work, focusing on ten key agencies. It identifies complementarities and commonalities between UN Women and these agencies, highlighting comparative advantages and niches. Aligning strategic plans with other entities is crucial for effective evaluation and

learning, identifying areas of shared competencies and collaboration, and recognizing areas of focus.

- CF Indicator Dashboard
 - **Project Description: CF Indicator Dashboard:** Created in 2025, this Power BI dashboard provides comprehensive information and insights into the relevance of Strategic Plan Integrated Results and Resources Framework IRRF 2022-2025 indicators to the work of UN Country Teams (UNCTs). By examining both past and future indicators in United Nations Sustainable Development Cooperation Frameworks (UNSDCFs) from 2022-2027, the dashboard uses two distinct similarity algorithms to match similar indicators and provides a 'similarity score' to evaluate matches. This tool is crucial for internal strategic planning and evaluation, as it helps identify which indicators have been, are, and will be most pertinent to UNCTs' efforts. By leveraging advanced algorithms, the dashboard enhances the ability to recognize patterns, align objectives, and ensure that resources are directed towards the most impactful initiatives. This alignment is vital for fostering collaboration and optimizing resource use.
- Project Status
 - Ongoing
- Project Domain
 - Gender equality
- Related Sustainable Development Goals (SDGs)
 - SDG 5

2. Related Sustainable Development Goals

SDG 4, 5, 9 and 17

3. Relevant Link

<https://www.unwomen.org/en>

Contact Information:

Helene Molinier (helene.molinier@unwomen.org);

Universal Postal Union



1. Description of Activities on AI

Project 1: State of the Postal Sector Report

- Project Description: Artificial intelligence (AI) is at the forefront of revolutionizing the next wave of postal services. The "State of the Postal Sector" report, UPU's flagship publication, delves into AI's transformative role in fostering enhanced collaboration among postal sector stakeholders worldwide. Spanning two dedicated chapters, the report explores the vast, yet to be fully realized, potential of AI within the sector and among UPU member states. It outlines a strategic roadmap to capitalize on AI, detailing pivotal use cases that could significantly elevate the efficiency and innovation of postal services at all development levels.
- Project Type: Report
- Project Status: Published
- Project Start Year: 2023
- Partnership: postal services, regulators and governmental authorities in UPU member states
- Project Website (link):
 - State of the Postal Sector 2023 <https://www.upu.int/en/publications/2ipd/state-of-the-postal-sector-2023>
- Contact Information: José Anson (jose.anson@upu.int)

Project 2: Prediction of postal item delivery day on the UPU global track and trace system

- Project Description: The UPU's global postal supply chain consists of almost 700,000 postal access points and reaches 95% of the world's population for the delivery of postal items; mail, parcels and postal payments.
In the delivery process to the addressee, the provision of reliable information on the expected delivery date of the postal item is a challenge, especially so for postal operations in least developing, developing countries and small island developing states.
Using machine learning models trained on postal big data, the UPU's global track and trace solution (<https://globaltracktrace.ptc.post/>) which provides international routing information of the postal item, now includes a prediction engine for the estimated delivery day. It achieves up to 67% accuracy from posting and up to 87% accuracy on the delivery leg.
- Project Type: AI Big Data Platform
- Project Status: Active
- Project Start Year: 2023
- Project Domain: Postal logistics
- Technology Platform: Hadoop cluster
- Project Website (link): <https://globaltracktrace.ptc.post/>
- Contact Information: PTC.PostInfo@upu.int, external.relations@upu.int

Project 3: Detection of dangerous (and prohibited) goods in the UPU postal network

- Project Description: The UPU postal network is sometimes used for illegal traffic (such as: drugs, counterfeit items) and dangerous items (such as: inflammable/explosive products) that may get injected into the network.

The Dangerous Goods Search tool (DGST) uses machine learning models trained on postal big data, to score the likelihood of the item to be dangerous (or prohibited). At the time of this report, the system is still under User Acceptance Tests (UAT) and we do not have as yet metrics to report. In the future, there are plans to interface the DGST with other intelligence databases, and offer a comprehensive tool to postal officers in charge of protecting the postal network.

- Project Type: AI Big Data Platform
- Project Status: Active (UAT)
- Project Start Year: 2023
- Project Domain: Postal logistics
- Technology Platform: Hadoop cluster
- Project Website (link): <https://qcsmailbd.ptc.post/> (restricted application)
- Contact Information: PTC.PostInfo@upu.int, external.relations@upu.int

Project 4: Detection of counterfeit philatelic products and stamp identification

- Project Description: The postage stamp, a pillar of postal activity, has a fiduciary value and is a significant source of revenue for Posts worldwide. Counterfeiting has always been a problem, as it has a direct impact on operators' revenues. The stamp is also the most widely collected item in the world, and the secondary market is a direct source of revenue for operators.

Relying on the data within the UPU's digital database of certified stamps, the UPU has developed an AI-based tool presented on a mobile application, which will enable customs and law enforcement officers to check the legality of a seized stamp in just a few steps. This counterfeit detection functionality is reserved for customs, however the same tool also allows collectors to identify stamps and thus enhance their philatelic hobby.

- Project Type: Software tool/Application
- Project Status: Active (UAT)
- Project Start Year: 2024
- Project Domain: Postal services, regulators and governmental authorities in UPU member states
- Technology Platform: Own and use Python
- Project Website (link): <https://www.wnsstamps.post>
- Contact Information: wns@upu.int,

2. Related Sustainable Development Goals

SDGs 8, 9, 13 and 17

3. Relevant Links

- FAQ: <https://www.upu.int/en/Contact-us/Postal-shipments>
- Product: <https://globaltracktrace.ptc.post/>
- State of the Postal Sector 2023 <https://www.upu.int/en/publications/2ipd/state-of-the-postal-sector-2023>

World Bank Group



1. Description of Activities on AI

Project 1: Financial Stability Advisory Services

- Project/initiative description: The paper "AI for Risk-Based Supervision: Another 'Nice to Have' Tool or a Game-Changer?" explores the transformative potential of Artificial Intelligence (AI) in enhancing risk-based supervision (RBS) within the financial sector. It highlights the uneven global implementation of RBS, with developed countries achieving robust frameworks while middle- and low-income countries struggle. The paper argues that AI, with its advanced data processing and predictive capabilities, can revolutionize financial supervision by automating routine tasks, improving data quality, and enabling proactive risk management. AI's ability to handle large volumes of data and provide real-time insights can significantly enhance the efficiency and effectiveness of supervisory authorities, making it a game-changer in financial regulation. However, the paper also addresses the challenges and risks associated with AI adoption, such as data quality issues, regulatory compliance, and the need for specialized skills. It emphasizes the importance of a balanced approach, combining AI's capabilities with human judgment to ensure effective supervision. The paper concludes that while AI will not replace human supervisors, it will increasingly complement their work, leading to a more resilient and inclusive financial sector. The future of financial supervision lies in the symbiosis between AI and human expertise, driving innovations that ensure market integrity and protect consumer interests.
- Unit/GP leading: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Development Research Reports
- Project status: Completed
- Project starts year: 2024
- Project end year: 2025
- Related SDGs: Related to SDG 8 (Decent work and economic growth) and SDG 9 (Industry, Innovation, and Infrastructure)
- Partners: ITS Technology Innovation Office (Ji Ho Shin - jshin5@worldbankgroup.org)
- Any publicly available URL links/multimedia: <https://documents1.worldbank.org/curated/en/099021725190042788/pdf/P503970-2c607262-8673-4797-b5a6-52df7187e543.pdf>
- Project lead contacts: Matei Dohotaru - mdohotaru@worldbank.org

Project 2: AI for Tax Administration in Armenia

- Project/initiative description: The AI tool will be used to improve tax compliance through the tax audit, fraud detection.
- Unit/GP leading :Governance GP ECA Region
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing
- Project start year: 2022

- Project end year: 2028
- Related SDGs: Related to SDG 16 (Peace, justice, and strong institutions)
- Partners: Government of Armenia, Digital Transformation GP
- Any publicly available URL links/multimedia: <https://blog-pfm.imf.org/en/pfmblog/2025/05/the-ai-revolution-in-tax-administration-armenia-is-leading-by-example>
- Project lead contacts: Khuram Farooq - kfarooq@worldbank.org

Project 3: Fostering Long-term Savings linked to the Zambia Financial Inclusion Country Support Program

- Project/initiative description: The project used a novel AI-based text-messaging-based intervention to: i) identify the behavioral barriers that lead to low engagement with formal financial services amongst those using the services; and ii) test strategies to help people overcome those barriers to increase engagement and financial security. Additionally, it provides the first evidence (that the team is aware of) on the impact of conversational machine-learning based, two-way text messaging designed to encourage savings and improve loan repayment behaviors through Q&A capabilities and efforts to enhance trust in formal financial products.
- Unit/GP leading: Finance, Competitiveness, and Innovation Practice Unit and Development Economics Research Unit
- Project type: Impact Evaluation Report
- Project status: Completed
- Project start year: 2015
- Project end year: 2020
- Related SDGs: The project had a strong focus on financial inclusion which is positioned prominently as an enabler of other developmental goals in the 2030 Sustainable Development Goals, where it is featured as a target in eight of the seventeen goals. These include:
 - SDG 1 (No Poverty)
 - SDG 2 (Zero Hunger)
 - SDG 5 (Gender Equality)
 - SDG 9 (Industry, Innovation, and Infrastructure)
 - SDG 17 (Partnerships to achieve the Goal)
- Partners: Natsave, Junto Finanzas (acquired by Nubank), Trinity College Dublin, Swarthmore
- Project lead contacts: Siegfried Zottel - szottel@worldbank.org

Project 4: Using AI to Analyze Road Traffic Crash Data in Kenya

- Project/initiative description: Data on road traffic crashes is lacking in low-income countries with official data estimated to capture only 17% of road traffic deaths. Missing data largely results from poorly developed administrative data systems that often rely on paper records where data is not up to date. This project investigates whether data generated from smartphones and social media usage can help fill gaps in administrative records. Specifically, the project creates road traffic crash location data from crowdsourced crash reports posted on Twitter in Nairobi, Kenya. The project scraped 874,588 traffic related tweets from Nairobi and applied a machine learning model to capture the occurrence of a crash and developed an improved geoparsing algorithm to identify its location. We geolocate 32,991 crash reports from Twitter for 2012-2020, clustering them into 22,872 unique crashes. For a subset of crashes reported on Twitter, a motorcycle delivery service was dispatched in real-time to verify the crash and its location; the results show 92% accuracy.

- Unit/GP leading: Development Impact Evaluation (DIME)
- Project type: Development Research Report
- Project status: Completed
- Project start year:2018
- Project end year:2021
- Related SDGs: Related to SDG 3 (Good Health and Well-being) and SDG 11 (Sustainable Cities and Communities)
- Any publicly available URL links/multimedia:
 - [Academic Paper] <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0244317>
 - [Brief] <https://documents1.worldbank.org/curated/en/609971608546546068/pdf/Urban-Planning-I-Spy-Crashes.pdf>
 - [Blog] <https://blogs.worldbank.org/opendata/finding-missing-data-creating-actionable-information-solving-development-problems>
- Project lead contacts: Sveta Milusheva - smilusheva@worldbank.org

Project 5: Natural Language Processing (NLP) to evaluate the presence of gender biases in the written decisions of judges

- Project/initiative description: Natural Language Processing (NLP) to evaluate the presence of gender biases in the written decisions of judges
 - Do Judges Favor their Own Ethnicity and Gender? Evidence from Kenya: Leveraging publicly available information on hundredths of thousands of judicial decisions in Kenya, the team uses NLP to measure gender attitudes in the language of decisions and evaluate the presence of gender biases. The paper finds that the written judgments are on average shorter and less likely to be cited when defendants who are of the same gender or ethnicity as the judge win their case. This is consistent with in-group biased decisions being of lower quality. In addition, the findings show that female defendants are less likely to win the case if the judge exhibits stereotypical or negative attitudes towards women in their writings.
 - Gender Attitudes in the Judiciary: Evidence from U.S. Circuit Courts: this is earlier work by some of the team members using the same method for the US. The paper proposes a novel judge-specific measure of gender attitudes based on use of gender-stereotyped language in the judge's authored opinions. The authors find that slanted judges vote more conservatively in gender-related cases. Slant influences interactions with female colleagues: slanted judges are more likely to reverse lower-court decisions if the lower-court judge is a woman than a man, are less likely to assign opinions to female judges, and cite fewer female-authored opinions
- Unit/GP leading: Development Impact Evaluation (DIME)
- Project type: Research Report
- Project status: Completed
- Project start year:2019
- Project end year:2022
- Related SDGs: Related to SDG 16 (Peace, justice, and strong institutions)
- Any publicly available URL links/multimedia:
 - <https://openknowledge.worldbank.org/handle/10986/37108>
 - <https://ideas.repec.org/p/cge/wacage/462.html>
- Project lead contacts: Manuel Ramos-Maqued - mramosmaqueda@worldbank.org

Project 6: Artificial Intelligence in the Public Sector: Maximizing Opportunities, Managing Risks

- Project/initiative description: This report provides a preliminary synthesis of the existing opportunities, risks, and building blocks required for implementing and integrating AI in government operations. The report also highlights policy, governance, and people aspects necessary for AI implementation. It draws on the accumulated literature, case studies, and emerging trends to provide guidance to World Bank teams working in this field.
- Unit/GP leading: Equitable Growth, Finance, and Institutions (Governance Unit)
- Project type: Research Report
- Project status: Completed
- Project start year: 2019
- Project end year: 2022
- Related SDGs: Related to SDG 16 (Peace, justice, and strong institutions)
- Partners: GovTech Global Partnership
 - Any publicly available URL links/multimedia: <https://documents1.worldbank.org/curated/en/809611616042736565/pdf/Artificial-Intelligence-in-the-Public-Sector-Maximizing-Opportunities-Managing-Risks.pdf>
- Project lead contacts: Khuram Farooq - kfarooq@worldbank.org

Project 7: New policy and regulatory pathways for harnessing artificial intelligence

- Project/initiative description: The project aims at developing a framework of enabling policies and regulatory measures for client countries to harness artificial intelligence for development and mitigate associated risks, leading to improved understanding and increased quality of advice provided by the WBG.
- Unit/GP leading: Digital Development
- Project type: Advisory Services and Analytics (ASA)
- Project status: Completed
- Project start year: 2019
- Project end year: 2021
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Partners: Digital Development
- Any publicly available URL links/multimedia: <https://documents1.worldbank.org/curated/en/487931621237422984/pdf/Harnessing-Artificial-Intelligence-for-Development-on-the-Post-COVID-19-Era-A-Review-of-National-AI-Strategies-and-Policies.pdf>
- Project lead contacts: Zaki Badie Khoury - zkhoury@worldbank.org

Project 8: Using remote sensing and artificial intelligence to measure trade node activity

- Project/initiative description: The objective of this project is to demonstrate the use of alternative tools based on artificial intelligence and remote sensing of domestic and international trade nodes and corridors, based on quantitative, objective metrics, to inform policy and country interventions.
- Unit/GP leading: Trade and Regional Integration Unit; Macroeconomics, Trade, and Investment Unit
- Project type: Research report
- Project status: Completed

- Project start year:2022
- Project end year:2024
- Related SDGs: Related to SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation and Infrastructure)
- Partners: Development Data Group
- Any publicly available URL links/multimedia: <https://opswork.worldbank.org/home/P178398>
- Project lead contacts: Daniel Saslavsky / Satya Prasad Sahu - dsaslavsky@worldbank.org / ssahu8@worldbank.org

Project 9: AI and Digital Development (AI/DD) Research Initiative

- Project/initiative description: The world is in a critical phase of AI development, as adoption decisions are being made and regulatory frameworks are put in place. The AI/DD Research Initiative of the Development Research Group at the World Bank aims to grow the body of evidence on AI and novel AI solutions that is relevant for LMIC and can support the policy decisions and objectives of governments and policy makers. Building on the cumulative expertise of DECRG researcher from health and education to global trade, AI/DD creates and disseminates high-quality, independent evidence on AI's effects both on the global economy and on individual outcomes. We work to increase technical capacity on AI among social scientists and development research institutions, and partner with AI researchers to identify scalable, high-impact solutions that LMIC can adopt to improve their citizens' lives. An important objective is to understand what complementary investments ensure that the benefits of AI are widely shared rather than concentrated among a few. In support of these goals, we are convening an interdisciplinary community of researchers, AI experts, and policy makers who are committed to using AI to advance the World Bank's mission of ending poverty and boosting shared prosperity on a livable planet.
- Unit/GP leading: DEC
- Project type: Research Projects
- Project status: Ongoing
- Project start year:2024
- Project end year:2027
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 3 (Good Health and Well-being)
 - SDG 4 (Quality Education)
 - SDG 5 (Gender Equality)
 - SDG 6 (Clean Water and Sanitation)
 - SDG 8 (Decent Work and Economic Growth)
 - SDG 10 (Reduced Inequality)
 - SDG 13 (Climate Action)
 - SDG 16 (Peace and Justice Strong Institutions)
 - SDG 17 (Partnerships to achieve the Goal)
- Any publicly available URL links/multimedia:<https://www.worldbank.org/en/about/unit/unit-dec/research/initiatives#1>
- Project lead contacts: Anja Sautmann - asautmann@worldbank.org

Project 10: IFC MALENA

- Project/initiative description: MALENA is an AI-powered solution developed by the World Bank Group's International Finance Corporation (IFC) to enhance environmental, social, and governance (ESG) analysis and increase investments in emerging markets. It is the Bank Group's first AI-as-a-Service and is available as a free, global public good for Bank Group clients, multilateral development banks, development finance institutions, investors, asset managers, financial institutions, and regulators. Based on a bring-your-own-data model, users can access MALENA's sentiment analysis and Questionnaire Hub features via a web interface or API connection. Since launch, site usage has grown to 1,000+ users. In development are capabilities to automate Environmental & Social Impact Assessment (ESIA) report reviews—checking for completeness and information adequacy, benchmarking against the World Bank Environmental and Social Framework, and recommending potential impacts and mitigation measures based on location and sector. An internal version of MALENA went live in 2022. The system integrates large internal and external document sets to generate AI-powered insights using a taxonomy of 1,000+ ESG, climate, and gender-related terms. It employs natural language processing, conversational AI, and sentiment analysis to improve the quality and efficiency of due diligence.
- Unit/GP leading: IFC CES (Environmental & Social Policy and Risk Department)
- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year: 2021
- Project end year: 2029
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 5 (Gender Equality)
 - SDG 6 (Clean Water and Sanitation)
 - SDG 7 (Affordable and Clean Energy)
 - SDG 8 (Decent Work and Economic Growth)
 - SDG 10 (Reduced Inequality)
 - SDG 13 (Climate Action)
 - SDG 14 (Life Below Water)
 - SDG 15 (Life on Land)
- Partners:
 - Internal (IFC Financial Institutions Group, CIT, WB Office of Information Security, Legal, Corporate Business Risk, Data Privacy Office)
 - External (Donors: Danida, Korea Ministry of Economy and Finance, FIAS: Facility for Investment Climate Advisory Services); (Clients: Amundi Asset Management, New Development Bank, Export and Investment Fund of Denmark, Capital Markets Authority Kenya, Nigerian Federal Ministry of Environment)
- Any publicly available URL links/multimedia: <https://malena.ifc.org/>
- Project lead contacts: Atiyah Curmally - acurmally@ifc.org

Project 11: Croatia Innovation and Digital Economy

- Project/initiative description: The World Bank is supporting the government of Croatia by informing strategies for the improvement of the innovation performance of firms, and supporting the promotion of firm digitalization, as is set out in the sub-component C1.1.2. Resilient, Green and Digital Economy of the Croatian EU National Recovery and Resilience

Plan ("NRRP"). The relevant sub-objective is the third sub-objective which is to provide technical input for the design and implementation of a national plan for digitalization and artificial intelligence.

- Unit/GP leading: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year: 2022
- Project end year: 2026
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Partners: Finance, Competitiveness, and Innovation Practice Unit
- Project lead contacts: Anita Okemini - aokemini@worldbank.org

Project 12: Who on Earth Is Using Generative AI ?

- Project/initiative description: Leveraging unconventional data, including website traffic data and Google Trends, this paper unveils the real-time usage patterns of generative artificial intelligence tools by individuals across countries. The paper also examines country-level factors driving the uptake and early impacts of generative artificial intelligence on online activities. As of March 2024, the top 40 generative artificial intelligence tools attract nearly 3 billion visits per month from hundreds of millions of users. ChatGPT alone commanded 82.5 percent of the traffic, yet reaching only one-eighth of Google's monthly visits. Generative artificial intelligence users skew young, highly educated, and male, particularly for video generation tools, with usage patterns strongly indicating productivity-related activities. Generative artificial intelligence has achieved unprecedentedly rapid global diffusion, reaching almost all economies worldwide within 16 months of ChatGPT's release. Middle-income economies have disproportionately high adoption of generative artificial intelligence relative to their economic scale, now contribute more than 50 percent of global traffic, while low-income economies contribute less than 1 percent. Regression analysis reveals that income level, share of youth population, digital infrastructure, specialization in high-skill tradable services, English proficiency, and human capital are strongly correlated with higher uptake of generative artificial intelligence. The paper also documents disruptions in online traffic patterns and emphasizes the need for targeted investments in digital infrastructure and skills development to harness the full potential of artificial intelligence.
- Unit/GP leading: Infrastructure VPU (GGIVP)
- Project type: Policy Research Working Paper
- Project status: Completed
- Project end year: 2024
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Partners: DEC-IFC, Off of VP (DECVP), Infrastructure VPU (GGIVP)
- Project lead contacts: Yan Liu - yanliu@worldbank.org

Project 13: Improving Equitable Access to High Standard Public Services through GovTech

- Project/initiative description: The project is using AI and ML to accelerate digital transformation by harnessing advanced digital technologies such as machine learning. It aims to further promote digital innovation and skills, improve data governance, and increase accountability through policy reforms. In line with the Digital Agenda of Albania 2021+, the project proposes to capitalize on the progress made in digitalization by increasing investments in advanced computing, data processing, artificial intelligence, and cyber security. The project aligns with the Country Partnership Framework's focus

on digitalization and enhancing the effectiveness and efficiency of the public sector, contributing to Albania's response to and recovery from COVID-19.

- Unit/GP leading: Governance
- Project type: PforR
- Project status: Ongoing
- Project start year:2023
- Project end year:2029
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure) and SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Simon Carl O'Meally; someally@worldbank.org

Project 14: Digital Inclusion and Innovation in Public Services in Argentina

- Project/initiative description: The project aims to leverage AI and machine learning to improve decision-making and service delivery in the public sector. It highlights the limited use of data analytics tools and artificial intelligence in supporting policy and managerial decision-making. Furthermore, it plans to implement machine learning in reengineering systems and platforms, as well as develop data analytics dashboards and artificial intelligence in the current platforms. Additionally, the project emphasizes leveraging the value of data generated by implementing innovative tools such as data analytics and artificial intelligence to improve service delivery. Therefore, the project is using AI/ML to enhance decision-making processes and service delivery.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year:2021
- Project end year:2025
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Silvana Kostenbaum - skostenbaum@worldbank.org

Project 15: Climate Intelligent and Inclusive Agri-food Systems Project

- Project/initiative description: The project is leveraging AI and ML in the context of digital agriculture by promoting the use of advanced technologies such as remote sensing and machine learning tools. These technologies offer potential for improving efficiency and overcoming the challenges identified in the agricultural sector. By incorporating machine learning tools, the project aims to support farmers in making more informed decisions based on advanced data analysis techniques, ultimately contributing to sustainable economic growth in the agriculture sector.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year:2022
- Project end year:2027
- Related SDGs: Related to SDG 2 (Zero Hunger) and SDG 13 (Climate Action)
- Project lead contacts: Edward Bresnyan - ebresnyan@worldbank.org

Project 16: Fourth Public Sector Modernization Project

- Project/initiative description: The project is leveraging artificial intelligence and machine learning (AI/ML) in GovTech to increase efficiency in citizen engagement, service

delivery, and cybersecurity. The activities include providing technical assistance on the development of an integrated data fabric architecture concept for the whole-of-government approach to AI, piloting AI concepts in selected areas, and capacity building on AI. Additionally, the government is already using AI in the State Revenue Committee (SRC) to improve tax collection efficiencies, and the project aims to support the expansion of AI usage in other domains through technical assistance on architecture, proof-of-concepts, and capacity building.

- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year:2022
- Project end year:2028
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions):
- Project lead contacts:Arman Vatan - avatan@worldbank.org

Project 17: Enhancing Digital Government & Economy Project

- Project/initiative description: The project is leveraging Artificial Intelligence (AI) and Machine Learning (ML) by offering training in emerging technologies such as IoT, blockchain, machine learning, and big data. These technologies are aimed at increasing digital skills and digital-enabled employment for youth, with a specific focus on the use of these technologies for addressing future pandemics and climate-related disasters. Additionally, the project will assess and select beneficiary IT companies for training based on specific criteria outlined in the Operations Manual, indicating a strategic approach to integrating AI/ML within the training program for impactful outcomes.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year:2020
- Project end year:2026
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Jerome Bezzina - jbezzina@worldbank.org

Project 18: COVID-19 Emergency Response and Pandemic Preparedness Project

- Project/initiative description: The project aims to leverage artificial intelligence-based telemedicine and mobile health approaches for monitoring and evaluation of COVID-19 preparedness and response efforts. The use of AI in telemedicine could potentially enhance diagnostic processes and improve healthcare delivery. Additionally, the project may use AI or ML for analyzing data related to nosocomial infection rates, disease severity, and transmission dynamics, contributing to more effective prevention and preparedness strategies.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Completed
- Project start year:2020
- Project end year:2024
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Iffat Mahmud - imahmud@worldbank.org

Project 19: Belarus Higher Education Modernization Project

- Project/initiative description: Based on the provided text snippets, the project is using artificial intelligence and/or machine learning to modernize teaching and learning within tertiary education systems. The mention of "use of artificial intelligence" as an important opportunity to modernize teaching and learning suggests that AI may be implemented to enhance educational delivery modes and approaches. While the text does not explicitly outline specific AI/ML applications, it implies that AI technologies and innovations are being considered to improve tertiary education systems.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year:2020
- Project end year:2026
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Tigran Shmis - tshmis@worldbank.org

Project 20: Belize Energy Resilience for Climate Adaptation (GEF/SCCF)

- Project/initiative description: Based on the given text snippets, the project is leveraging AI/ML by developing a predictive model for the energy sector to test the impact of policies and investments. This model will address significant gaps in socioeconomic and energy data and will help in identifying necessary policies and capabilities. Additionally, the project aims to strengthen capacity to periodically update and refine the model, indicating the use of machine learning techniques for iterative improvements. These AI/ML techniques will be based on data from multiple stakeholders and citizens to enhance energy and climate adaptation planning in Belize.
- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year:2017
- Project end year:2025
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action)
- Project lead contacts: Nguyet Anh Pham - npham@worldbank.org

Project 21: ProgestÃo Alagoas: Public Sector Management Efficiency

- Project/initiative description: The project is leveraging AI and ML in several ways, including the development and implementation of an integrated digital system for processing and analyzing data in public procurement and contract management, using artificial intelligence tools for processing electronic invoices and spend analysis, and implementing management analytics and artificial intelligence for automated wage bill audits. Additionally, the project aims to make use of artificial intelligence for automated wage bill audits to strengthen HRM practices and strategic workforce planning. These AI and ML tools will contribute to more efficient and data-driven decision-making in public procurement, contract management, and HRM practices.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year:2023
- Project end year:2028

- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Carolina Vaira - cvaira@worldbank.org

Project 22: Progestão Mato Grosso: Public Sector Management Efficiency

- Project/initiative description: The project is leveraging Artificial Intelligence (AI) in various aspects such as the identification and reduction of fraud and corrupt practices using electronic invoices, the use of AI for automated data analysis to guide new policies, the adoption of AI for identifying "red flags" for fraud in public procurement, and the implementation of AI for automated wage bill audits. Additionally, the project aims to use AI to support actions leading to an increase in women's participation in leadership positions. These initiatives demonstrate the project's strategic use of AI to enhance efficiency, combat fraud, and support decision-making processes across different components, including procurement, human resource management, and public investment management.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Project end year: 2029
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Rovane Battaglin Schwengber - rschwengber@worldbank.org

Project 23: Progestão Piau: Public Sector Management Efficiency

- Project/initiative description: This project is using artificial intelligence in the implementation of an integrated system for sustainable e-procurement, incorporating the application of AI using electronic invoices to identify and reduce fraud and corrupt practices. Additionally, the project includes the development of integrated dashboards with reliable data aligned with sustainability and gender equity practices, which may also involve the use of AI for data analysis and decision-making. Overall, the project demonstrates the use of AI in improving transparency and efficiency in public procurement processes.
- Unit/GP leading: Social Protection & Jobs
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Project end year: 2028
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Rovane Battaglin Schwengber - rovane.schwengber@worldbank.org

Project 24: Brazil Climate Finance Project

- Project/initiative description: The project is using Artificial Intelligence to evaluate and assign weights to criteria. This application of AI aligns with the project's aim to apply a good market approach and value-for-value practices in achieving its intended purpose. By utilizing AI for computational systems, the project is integrating advanced technology to enhance its methodologies and decision-making processes.
- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: IPF
- Project status: Ongoing

- Project start year: 2023
- Related SDGs: Related to SDG 13 (Climate Action)
- Project lead contacts: Gabriel Sensenbrenner - sensenbrennerg@worldbank.org

Project 25: ProgestÃo Acre: Public Sector Management Efficiency

- Project/initiative description: The project is leveraging artificial intelligence (AI) to support procurement planning and enhance transparency within the public procurement process. Specifically, the implementation of an integrated digital system, use of electronic invoices for fraud detection, and the development and implementation of an artificial intelligence system for automated payroll audit demonstrate the use of AI in streamlining procurement and personnel management processes to improve efficiency and effectiveness.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Sadia Afolabi - sadia.afolabi@worldbank.org

Project 26: ProgestÃo Tocantins: Public Sector Management Efficiency

- Project/initiative description: This project involves development and implementation of a management analytics and artificial intelligence system for automated payroll audit to reduce errors and fraud and applying artificial intelligence using electronic invoices to identify and reduce fraud and corrupt practices
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Any publicly available URL links/multimedia: <https://projects.worldbank.org/en/projects-operations/project-detail/P179088>
- Project lead contacts: Sadia Afolabi - sadia.afolabi@worldbank.org

Project 27: RESILAND CA+ Program: Kyrgyz Republic Resilient Landscape Restoration Project

- Project/initiative description: The project encompasses the application of artificial intelligence for degradation mapping, which indicates the use of AI technology to analyze and map landscape degradation processes. This suggests that the project is leveraging AI for the monitoring and analysis of environmental changes. Additionally, the mention of a regional online database suggests a potential for AI/ML-based data analytics and insights to be utilized for sustainable landscape management and other relevant research areas.
- Unit/GP leading: Environment, Natural Resources & the Blue Economy
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 15 (Life on Land)
- Project lead contacts: Aidai Bayalieva - aidai.bayalieva@worldbank.org

Project 28: Gansu Revitalization and Innovation Project

- Project/initiative description: The project is leveraging AI/ML, specifically fintech solutions, to improve the overall risk management framework of the People's Bank of China (BoG) as the first Participating Financial Institution (PFI). Fintech will aid in overcoming information barriers, especially for lending to Micro and Small Enterprises (MSEs) in remote areas, and big data and machine learning will play a role in reducing the cost of credit risk assessments. This indicates that AI/ML is being used to enhance risk management practices and improve lending capabilities, contributing to improved project outcomes.
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 8 (Decent Work and Economic Growth)
- Project lead contacts: Ahmed Eiweida - ahmed.eiweida@worldbank.org

Project 29: China Food Safety Improvement Project

- Project/initiative description: This project is leveraging artificial intelligence (AI) and machine learning (ML) technologies at both the farm and enterprise level. It mentions financing pilots for food safety technologies and disruptive digital control systems using AI for smart food safety supervision. Additionally, it discusses using AI and ML technologies to detect sub-optimal practices of food business operators, lower monitoring costs, control the production environment, increase production efficiency, and analyze data using big data analytics approaches. Overall, the project integrates various AI and ML technologies for process automation, resource optimization, real-time supervision, and predictive analytics to support sustainable and efficient agricultural production.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 2 (Zero Hunger) and SDG 3 (Good Health and Well-being)
- Project lead contacts: Sandra Broka - sandra.broka@worldbank.org

Project 30: China Renewable Energy and Battery Storage Promotion Project

- Project/initiative description: The project is leveraging artificial intelligence (AI) technologies for the optimization of power systems with battery storage. It intends to use simulations and models to evaluate the performance and interaction between battery storage and the grid. Additionally, the concept of a 'virtual power plant' utilizing advanced IT and AI technologies may be piloted. These activities demonstrate the project's use of AI for optimizing power system operations and managing the integration of renewable energy sources.
- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Any publicly available URL links/multimedia:
- Project lead contacts: Yuge Ma - yuge.ma@worldbank.org

Project 31: China Plastic Waste Reduction Project

- Project/initiative description: The project is utilizing Artificial Intelligence (AI) in two key areas. Firstly, for the implementation of intelligent all-category solid waste separation cabins in residential areas, AI will be used to monitor and record the quality and quantity of waste separation made by individuals, thereby enhancing the effectiveness and efficiency of waste management. Secondly, AI will also be integrated into the new data system to prioritize research and application of best practices to protect personal data and ensure information security
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 12 (Responsible Consumption and Production)
- Project lead contacts: Guangming Yan - guangming.yan@worldbank.org

Project 32: Orinoquia Integrated Sustainable Landscapes

- Project/initiative description: The project is leveraging AI and ML to analyze land extensions and for monitoring at a semi-detailed and detailed level, which indicates the use of advanced techniques to process and interpret large and diverse datasets. Additionally, the absence of dynamic and predictive models for ecosystem services suggests the potential application of AI and ML algorithms to develop such models, demonstrating the project's use of advanced technologies for improved analyses and forecasting.
- Unit/GP leading: Environment, Natural Resources & the Blue Economy
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 15 (Life on Land)
- Project lead contacts: Kevin McCall - kevin.mccall@worldbank.org

Project 33: DRC Multisectoral Nutrition and Health Project

- Project/initiative description: The project aims to leverage artificial intelligence and machine learning to improve service delivery and enhance learning by implementing rigorous implementation research and evaluation related to the demonstration project. This includes using machine learning for risk-based verification to reduce the cost of performance-based financing, developing electronic job aids for healthcare providers, and exploring novel methods for child anthropometry. The emphasis on learning by doing and scaling up effective and cost-effective innovations demonstrates the project's commitment to leveraging AI/ML for socio-economic development.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Lisa Saldanha - lisa.saldanha@worldbank.org

Project 34: Congo Digital Acceleration Project

- Project/initiative description: Based on the provided text, the project is leveraging AI/ML by establishing the regional Artificial Intelligence research center and partnering with the African Union Center of Excellence in Artificial intelligence. The project aims to provide connectivity, ICT tools, and an open-source digital platform with interactive pedagogical content to promote the use of ICT tools and digital skills. Additionally, the project is partnering with established universities and institutions to deliver undergraduate degrees in IT/computer science and AI. This signifies a clear effort to integrate AI/ML into the education system and develop expertise in these fields.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Heriniaina Andrianasy - heriniaina.andrianasy@worldbank.org

Project 35: Costa Rica Fiscal Management Improvement Project

- Project/initiative description: The project is looking to leverage AI and ML in multiple aspects of its activities. It highlights the potential use of machine learning models, data mining, and real-time monitoring and analytics within its proposed data analytics platform. Furthermore, it specifically mentions the exploration of new technologies such as machine learning and logistic regression for taxpayer services. The project aims to support the development of a digital document management system that could potentially incorporate AI and ML technologies for classification, retrieval, and analysis of documents and data associated with taxpayers. Therefore, the project is looking to integrate AI and ML into various components of its operations to enhance its taxpayer services and document management capabilities.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Henry Forero Ramirez - henry.forero@worldbank.org

Project 36: Digital, Innovation, and Green Technology Project

- Project/initiative description: The project is utilizing AI and machine learning in various ways such as in transportation for energy optimization, big data management in agriculture and bioresources, as well as blockchain in waste management. Additionally, the project supports advisory services related to digital and green innovation, which may include the use of AI and machine learning for diagnostics and action plans. The use of AI and machine learning is aligned with the focus on digital technologies, particularly in the areas of artificial intelligence and machine learning as identified within the European Union's Taxonomy for Sustainable Activities.
- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type :IPF
- Project status: Ongoing
- Project start year: 2023
- Project start year: 2028
- Related SDGs:

- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation, and Infrastructure
- SDG 11: Sustainable Cities and Communities
- Partners: Ministry of Science, Education, and Youth
- Any publicly available URL links/multimedia: <https://projects.worldbank.org/en/projects-operations/project-detail/P180755>
- Project lead contacts: Todor Milchevski - todor.milchevski@worldbank.org

Project 37: DR Resilient Agriculture and Integrated Water Resources Management

- Project/initiative description: The project aims to leverage AI and ML through innovative tools such as GeoMelodicos and Plantix to enhance agricultural productivity and support smallholder farmers. The use of the Plantix app demonstrates the project's adoption of artificial intelligence for automated disease detection in plants, while GeoMelodicos provides technological support for farmers to determine the optimal time for planting crops using scientific data. These initiatives align with the project's objective of scaling up impacts and promoting sustainable agriculture through AI and ML-based solutions.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 2 (Zero Hunger)
- Any publicly available URL links/multimedia:
- Project lead contacts: Barbara Noronha Farinelli - barbara.farinelli@worldbank.org

Project 38: Support for the Implementation of the Public Administration Reform and Modernization Plan

- Project/initiative description: The project intends to leverage machine learning by implementing machine learning services, developing data analytics dashboards, and reengineering systems to enable successful scalability. These activities indicate a focus on using AI/ML techniques to enhance management systems and platforms, as well as to support decision-making processes through data analysis and modeling. The project's emphasis on machine learning implementation services suggests a strategic integration of AI/ML to improve project outcomes.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Any publicly available URL links/multimedia:
- Project lead contacts: Francesca Recanatini - francesca.recanatini@worldbank.org

Project 39: Distribution Efficiency Improvement and Utility Strengthening Project

- Project/initiative description : The project is leveraging Artificial Intelligence (AI) and Machine Learning (ML) to integrate superior autonomy for handling both structured and unstructured data within the MDM system. This indicates that AI and ML algorithms will be used to autonomously process and analyze diverse types of data to improve the system's performance.
- Unit/GP leading: Energy & Extractives

- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Project lead contacts: Huong Nguyen - huong.nguyen@worldbank.org

Project 40: Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology

- Project/initiative description: The project is leveraging AI and machine learning to address societal challenges and drive productivity improvements across various sectors in Africa. The transformative technologies cited include artificial intelligence, 3D printing, internet of things, autonomous vehicles, drones, and digital traceability. These technologies are seen as part of the "Fourth Industrial Revolution" and are expected to enhance productivity in areas such as food, energy, transport, infrastructure, and health. This indicates a deliberate effort to harness AI and ML for large-scale applications to address specific challenges in Africa.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Ruth Charo - ruth.charo@worldbank.org

Project 41: Nile Cooperation for Climate Resilience

- Project/initiative description: The project is utilizing machine learning approaches to modernize data analysis, which is essential for improving decision-making processes. This includes incorporating modern spatial, statistical, and machine learning methods to analyze data more effectively. Furthermore, the project is leveraging earth observation (EO) information, which is becoming more accessible, to monitor and forecast weather patterns, indicating the use of AI/ML for advanced predictive analytics in the domain of weather forecasting and monitoring.
- Unit/GP leading: Water
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 6 (Clean Water and Sanitation)
- Project lead contacts: Shyam KC - shyam.kc@worldbank.org

Project 42: Sustainable Groundwater Management in SADC Member States Project Phase 2

- Project/initiative description: This project is leveraging Machine Learning (ML) for understanding hydrogeological systems in the absence of comprehensive datasets within the SADC region. The project intends to expand the use of ML in other transboundary waters and is collaborating with a consortium that has piloted ML in transboundary aquifers. Additionally, the project aims to enhance its capacity for measuring achievements and compliance using monitoring tools, potentially indicating the use of AI/ML for data analysis and decision-making processes.
- Unit/GP leading: Water
- Project type: IPF

- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 6 (Clean Water and Sanitation)
- Project lead contacts: Palesa Mokorosi - palesa.mokorosi@worldbank.org

Project 43: Eastern Africa Regional Statistics Program-for-Results

- Project/initiative description: The project aims to support activities aligned with the Kenyan Strategy for the Development of Statistics, leveraging experience from previous implementations. Specifically, it mentions leveraging big data, geospatial data, and applying machine learning techniques for the production of statistics. This indicates that AI/ML will be used to enhance the quality and analysis of data for poverty monitoring, labor market indicators, sectoral statistics, price, and macroeconomic statistics, contributing to improved data quality and timeliness in line with the program's objectives.
- Unit/GP leading: Poverty and Equity
- Project type :PforR
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities)
- Project lead contacts: Tom Bundervoet - tom.bundervoet@worldbank.org

Project 44: Africa Centres for Disease Control Support Program to Combat Current and Future Public Health Threats Project

- Project/initiative description: Building on the success of the Rumor Tracker, artificial intelligence driven predictive platforms will also be integrated into analysis and decision-making efforts. The utility of such technology can also be leveraged for improving demand for routine health services (e.g., routine immunization) over time. In addition, this sub-component will support the communications and human resource support required to ensure that critical, continent-wide science and media briefings continue to take place frequently.
- Unit/GP leading: Health, Nutrition & Population
- Project type :IPF
- Project status: Ongoing
- Project start year: 2023
- Project end year: 2027
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Partners: Africa Centres for Disease Control and Prevention
- Any publicly available URL links/multimedia: <https://projects.worldbank.org/en/projects-operations/project-detail/P178633>
- Project lead contacts: Fernando Montenegro Torres - fernando.montenegro@worldbank.org

Project 45: Accelerating Sustainable & Clean Energy Access Transformation Program Using the Multiphase Programmatic Approach

- Project/initiative description: The project is leveraging AI and machine learning through the use of smart/predictive algorithms, digital monitoring, reporting, and verification (D-MRV) platforms. These tools are transforming electrification planning and energy-access delivery, promising efficiencies and transparency in financing flows. Additionally, the project mentions innovations including electric cooking with energy-efficient stoves, which could potentially involve AI or ML technologies for optimization and efficiency.

- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Any publicly available URL links/multimedia:
- Project lead contacts: Monali Ranade - monali.ranade@worldbank.org

Project 46: Accelerating Sustainable and Clean Energy Access Transformation - Regional Energy Access Financing Platform

- Project/initiative description: The project is leveraging AI and ML through the use of digital tools, smart/predictive algorithms, and applications of artificial intelligence in electrification planning and energy-access delivery. This includes the use of satellite imagery and digital monitoring, reporting, and verification (D-MRV) platforms to enhance transparency, efficiency, and financing mobilization in the energy sector. These technologies have the potential to transform the project's approach to energy access delivery and create opportunities for impact-based financing through aggregation and credible verification protocols.
- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Any publicly available URL links/multimedia:
- Project lead contacts: Yabei Zhang - yabei.zhang@worldbank.org

Project 47: Railway Improvement and Safety for Egypt Project

- Project/initiative description: The project is leveraging AI and machine learning in the form of analytical tools to interpret data from sensors in ENR assets. These tools aim to reduce the failure rate of train engines and identify patterns for track deterioration, aligning with maintenance and repair protocols. Additionally, open data protocols are mentioned, indicating the use of big data to allow for the development of trip planners and other applications, which could potentially involve AI and machine learning techniques for data analysis and prediction.
- Unit/GP leading: Transport
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities)
- Project lead contacts: Arturo Ardila Gomez - arturo.gomez@worldbank.org

Project 48: Ethiopia: SME Finance Project

- Project/initiative description: The project is leveraging AI/ML through the exploration of big data solutions to address information asymmetries in financing for SMEs. By tapping into large-scale data sources and developing predictive models for loan repayment behavior, the project aims to provide financial institutions with tools to screen borrowers more effectively. This demonstrates how AI/ML techniques can be used to improve access to finance for SMEs and enhance the efficiency of financial services.

- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: IPF
- Project status: Ongoing
- Project start year: 2016
- Project end year: 2026
- Related SDGs: Related to SDG 8 (Decent work and economic growth) and SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Mengistu Achew - mengistu.achew@worldbank.org

Project 49: Ethiopia Education and Skills for Employability Project

- Project/initiative description: The project aims to incubate partnerships to deliver industry-certified digital skills programs, including Artificial Intelligence, indicating a focus on AI-related education and skills provision. This suggests that the project is leveraging AI to provide job-specific IT skills to students, thereby integrating AI into higher education and skills provision systems for better project outcomes.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Huma Waheed - huma.waheed@worldbank.org

Project 50: Fiji Social Protection COVID-19 Response and System Development Project

- Project/initiative description: The project is leveraging AI and ML through predictive analytics to estimate the likelihood of future outcomes and trends. This involves applying statistical analysis techniques, analytical queries, and automated machine learning algorithms to data sets to create predictive models. The use of regression analysis, forecasting, and predictive modeling indicates the project's utilization of AI/ML for predicting future events and actionable outcomes.
- Unit/GP leading: Social Protection & Jobs
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Yuliya Smolyar - yuliya.smolyar@worldbank.org

Project 51: Greater Accra Resilient and Integrated Development Project

- Project/initiative description: The project is utilizing machine learning to analyze urban poverty in Accra by combining and analyzing spatial resolution satellite imagery and other geospatial data. This involves the application of machine learning methodologies as outlined in Engstrom, et al. 2018, to study both monetary and non-monetary poverty in urban slums, showcasing how AI/ML is used for better project outcomes.
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019

- Related SDGs: Related to SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action)
- Project lead contacts: Santiago Arias - santiago.arias@worldbank.org

Project 52: Ghana Digital Acceleration Project

- Project/initiative description: This project is leveraging AI and machine learning through a gap analysis on the data protection framework and a regulatory impact assessment of emerging technologies such as AI and machine learning. Additionally, it aims to strengthen the operational capacity to implement and maintain additional data protection controls by funding activities such as strengthening of platforms and applications of the Ghana Registration System. This demonstrates a clear intention to harness AI and machine learning for enhancing data protection and regulatory frameworks, contributing to better project outcomes.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Kaoru Kimura - kaoru.kimura@worldbank.org

Project 53: Digital Government for Resilience

- Project/initiative description: The project is leveraging artificial intelligence as part of its interoperability framework to facilitate the automation of data exchange and creation, enabling the use of disruptive technologies for more efficient service delivery and business continuity before, during, and after crisis situations. AI is specifically mentioned as a technology that will ease the creation of data and automation of data exchange, demonstrating the project's utilization of AI for better project outcomes.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: C. Myers - c.myers@worldbank.org

Project 54: Strengthening Public Financial Management in Rajasthan

- Project/initiative description: The project seeks to leverage AI/ML in several ways: 1) using time series forecasting, predictive modeling, cluster analysis, and machine learning to construct welfare indices for households and places; 2) designing dashboards for easy reporting and visualization of these indices; and 3) developing the capacity of officials in data analysis. This approach demonstrates a clear emphasis on leveraging AI/ML techniques to generate actionable indices and improve data analysis for better project outcomes.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2018
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Manoj Jain - manoj.jain@worldbank.org

Project 55: Supporting Andhra's Learning Transformation

- Project/initiative description: The project is leveraging AI technology through the implementation of an artificial intelligence-backed approach called PAL, to facilitate technology-assisted periodic assessments and provide personalized learning experiences for students. Additionally, the project aims to develop a robust online Learning Management System (LMS) using the Government of India's DIKSHA platform, which can potentially use machine learning algorithms to cater to the varied professional development needs of teachers and provide tailored courses based on their individual requirements. Therefore, AI and ML are being used to personalize learning and empower teachers, contributing to the project's goal of improving education outcomes.
- Unit/GP leading: Education
- Project type: PforR
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 4 (Quality Education):
- Project lead contacts: Cristelle Kouame - cristelle.kouame@worldbank.org

Project 56: Realizing Education's Promise: Support to Indonesia's Ministry of Religious Affairs for Improved Quality of Education

- Project/initiative description: The project is using AI/ML through the development and implementation of an artificial intelligence program for test scoring. By leveraging AI for test scoring, the project aims to minimize the time and resources required to correct exams, thus increasing efficiency and reducing the workload on human scorers. This demonstrates the project's utilization of AI/ML to enhance educational assessment processes.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Shinsaku Nomura - shinsaku.nomura@worldbank.org

Project 57: National Health Insurance (JKN) Reforms and Results Program

- Project/initiative description: The project is leveraging artificial intelligence and machine learning for enhancing healthcare analytics through predictive and machine learning-based analysis, with the potential to inform decision-making and optimize resource allocation. This includes activities such as automating verification of provider credentials, analyzing patterns to inform operational and financial decisions, and influencing clinician and patient behavior. Additionally, the project aims to develop information systems for drug prescriptions, supply chain logistics, and inventory management, which could further facilitate the application of AI for improving the appropriateness of care and facility credentialing.
- Unit/GP leading: Health, Nutrition & Population
- Project type: PforR
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Zelalem Debebe - zelalem.debebe@worldbank.org

Project 58: Real Estate & Geospatial Infrastructure Project

- Project/initiative description: The project support for the development of innovative solutions and promoting entrepreneurship using NSDI, including the use of machine learning. This indicates that the project plans to leverage machine learning for innovative solutions, possibly in the context of spatial data and geospatial information.
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action)
- Project lead contacts: Paul Prettitore - paul.prettitore@worldbank.org

Project 59: Smallholder Agriculture Development Project - II

- Project/initiative description: The project is leveraging artificial intelligence and machine learning to create virtual weather stations by combining meteorological ground stations, satellite data, and big data analysis. This allows resource managers to monitor real-time weather patterns and make projections of agricultural production, crop yields, and forage quality in the target areas. AI and ML technologies are used to process and analyze the diverse data sources to provide valuable insights for informed decision-making.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019
- Related SDGs: Related to SDG 2 (Zero Hunger)
- Project lead contacts: Daniel Gerber - daniel.gerber@worldbank.org

Project 60: Support to COVID-19 Vaccine Purchase and Health System Strengthening

- Project/initiative description: The project is using machine learning to forecast localized vaccine needs and facilitate decision making, as mentioned in the text snippet "the use of machine learning to forecast localized vaccine needs and facilitate decision making." This application of machine learning can help optimize the vaccine rollout by predicting the demand for vaccines in specific areas, thereby enhancing the overall efficiency and effectiveness of the vaccination program.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Cedric Ndizeye - cedric.ndizeye@worldbank.org

Project 61: Financial Inclusion and Entrepreneurship Scaling Project

- Project/initiative description: The project is leveraging AI and ML through big data solutions to develop predictive models for loan repayment behavior. By tapping into large-scale data sources, the project aims to use AI/ML to analyze and predict the behavior of potential borrowers, allowing financial institutions to screen borrowers effectively. This demonstrates the project's utilization of AI/ML for predictive modeling to improve the process of lending to MSMEs.

- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: SDG 8 – Decent work and economic growth;
- SDG 9 – Industry, Innovation, and Infrastructure
- Project lead contacts: Efrem Chilima - efrem.chilima@worldbank.org

Project 62: Digital Federated States of Micronesia Project

- Project/initiative description: This project is addressing persistent gender inequalities exacerbated by the digital transformation, including concerns about the differential impact of job losses on men and women due to the adoption of digital services, robotics, and AI. The reference to mitigating adverse impacts and ensuring equitable opportunities for men and women suggests a potential use of AI/ML to analyze and model the gender-specific impacts of digital transformation on job dynamics and to develop strategies for addressing the disparities. However, the text does not provide specific details about the direct implementation of AI/ML techniques within the project.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: James Neumann - james.neumann@worldbank.org

Project 63: Mongolia Transport Connectivity and Logistics improvement project

- Project/initiative description: The project is leveraging AI and ML through the use of digital tools and technologies for real-time monitoring of deliveries, including RFID tags, quick-response codes, and track-and-trace blockchain. Additionally, the project mentions the use of "simple technologies for machine learning" in the context of warehousing and smart trucks/containers. Therefore, it can be inferred that the project is using AI/ML for optimizing logistical processes and transport routes, as well as for real-time monitoring and traceability of products in the supply chain.
- Unit/GP leading: Transport
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities)
- Project lead contacts: Edward Beukes - edward.beukes@worldbank.org

Project 64: Smart Government II Project

- Project/initiative description: The project explores the use of disruptive technologies such as artificial intelligence. Additionally, it outlines a skills training program targeting students in ICT-related programs, with a focus on including training in basic cognitive and socioemotional skills. While the specific mention of the use of AI/ML technologies is not elaborated upon, the overall context suggests potential integration of AI/ML in the education and skills training aspect of the project to prepare students for the rapidly evolving digital landscape.
- Unit/GP leading: Digital Development

- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Siou Kuek - siou.kuek@worldbank.org

Project 65: Morocco Green Generation Program-for-Results

- Project/initiative description: The project is leveraging AI and ML through several initiatives. Firstly, it mentions the development of a digital platform for precision agriculture based on artificial intelligence and image processing by drones or satellites. Additionally, the project outlines the creation of a Big-Data Center to allow cross-analysis between data and information from different databases, utilizing machine learning methods. Furthermore, the project mentions the use of machine learning for the detection of plant diseases based on images, indicating the integration of AI/ML technologies for improving agricultural practices and decision-making processes. This demonstrates the project's substantial reliance on AI/ML for enhancing agricultural operations and outcomes.
- Unit/GP leading: Agriculture and Food
- Project type: PforR
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 2 (Zero Hunger)
- Any publicly available URL links/multimedia:
- Project lead contacts: Remi Trier - remi.trier@worldbank.org

Project 66: Morocco Accelerating the Transformation of Higher Education and Scientific Research Operation

- Project/initiative description: The project is acknowledging the impact of technological advancements, including digital technology and artificial intelligence, on the changing nature of work and the demand for skills. It specifically mentions the reshaping of demand for skills due to digitalization, automation, and the use of low-carbon technologies, including artificial intelligence (AI). This indicates that the project is recognizing the influence of AI on the labor market and the need for new skill sets, demonstrating an awareness of the role of AI in shaping socio-economic dynamics.
- Unit/GP leading: Education
- Project type: PforR
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Lea Iungmann - lea.iungmann@worldbank.org

Project 67: National Food and Agriculture System Project

- Project/initiative description: The project is leveraging artificial intelligence (AI) technology through the use of a disease identification app that utilizes smartphone cameras and AI technology to identify agricultural diseases. This innovative approach allows for early detection and targeted responses to potential agricultural threats. Additionally, the digital applications for agricultural extension workers, combined with weather and market information, demonstrate a focus on utilizing digital technologies to enhance agricultural services, reaching small-scale farmers, women, and other vulnerable and marginalized groups in Myanmar.

- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Project end year: 2025
- Related SDGs: Related to SDG 2 (Zero Hunger)
- Project lead contacts: Valens Mwumvaneza - valens.mwumvaneza@worldbank.org

Project 68: Edo Basic Education Sector and Skills Transformation Operation

- Project/initiative description: The project leverages Artificial Intelligence (AI) and Machine Learning (ML) through its Edo Innovates initiative, which aims to upskill youths with in-demand digital skills, including artificial intelligence and data science, to connect them to jobs in the ICT sector. The initiative also includes specific programs for digital technology skills, such as AI and data science, and provides training in dedicated labs for youth from underserved communities in partnership with Curators University, Amazon Web Services, and Edobits. Additionally, the initiative fosters a community of technology innovators and entrepreneurs through co-working spaces, dedicated workspaces, and programs such as hackathons and competitions. This comprehensive approach demonstrates the integration of AI/ML in addressing the challenge of providing jobs for youth and driving economic growth.
- Unit/GP leading: Education
- Project type: PforR
- Project status: Ongoing
- Project start year: 2021
- Project end year: 2025
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Akiko Sawamoto - akiko.sawamoto@worldbank.org

Project 69: Consolidation of the Panama Public Financial Management Information System

- Project/initiative description: The project aims to leverage AI to react to cyberattacks and strengthen capacity to protect information resources. The mention of "innovations in artificial intelligence ushering in a new generation of more sophisticated cyberthreats" indicates a recognition of the potential for AI to enhance cybersecurity efforts.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Any publicly available URL links/multimedia:
- Project lead contacts: Henry Forero Ramirez - henry.forero@worldbank.org

Project 70: Peru: Strengthening of the Public Health Emergency Preparedness and Response

- Project/initiative description: The project is leveraging artificial intelligence and machine learning in multiple ways. It includes training and technical assistance in areas such as bioinformatics, mathematical modeling, climate impacts on health outcomes, and the application of artificial intelligence to health. Additionally, highly specialized software

platforms, big data, and machine learning platforms will be developed for analytical work and simulation modeling. This demonstrates a clear integration of AI/ML techniques to strengthen human resource capacities and improve the national surveillance and disease prevention system.

- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Marvin Ploetz - marvin.ploetz@worldbank.org

Project 71: Digital Acceleration Project

- Project/initiative description: The project is utilizing machine learning and AI methods to analyze climate data, providing direct support for climate change adaptation and COVID-19 response. These AI/ML techniques enable advanced analysis of climate data, aiding in decision-making processes and promoting more effective adaptation strategies.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Isabella Hayward - isabella.hayward@worldbank.org

Project 72: Rwanda - Accelerating Sustainable and Clean Energy Access Transformation in AFE MPA (ASCENT - Rwanda)

- Project/initiative description: The project is leveraging Artificial Intelligence (AI) and Machine Learning (ML) through the use of digital tools, satellite imagery, smart/predictive algorithms, and applications of AI for electrification planning, energy-access delivery, and finance mobilization. These digital platforms and tools, along with AI, promise efficiencies, transparency, and unprecedented opportunities to mobilize carbon revenues and impact-based financing, thereby transforming the energy sector.
- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Project lead contacts: Yabei Zhang - yabei.zhang@worldbank.org

Project 73: Resilient Urban Sierra Leone Project

- Project/initiative description: The project is leveraging AI and ML through remote sensing using drones and satellite imagery for monitoring and evaluation. This includes using computer vision for identifying different tree crops from aerial images as well as employing machine learning models to detect annual changes in canopy cover. The application of AI and ML technologies will enable the project to collect and analyze data more effectively, leading to improved forest management and adaptive community-based practices.
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF

- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Francis Nkoka - francis.nkoka@worldbank.org

Project 74: Somali Integrated Statistics and Economic Planning Capacity Building

- Project/initiative description: This project leverages Machine Learning to reduce interview time and impute missing consumption data in the Household Budget Survey (SHFS). Although the initial approach using Machine Learning in the SHFS survey is deemed too complex to sustain, the more traditional data collection approach used in the SIHBS survey will necessitate more interview time. The project uses a standard consumption module for data collection and finalizes the consumption module in consultation with the CPI team of the National Statistics Office.
- Unit/GP leading: Poverty and Equity
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities)
- Project lead contacts: Alejandro De la Fuente - alejandro.delafuente@worldbank.org

Project 75: Accelerating Sustainable and Clean Energy Access Transformation in SOMALIA

- Project/initiative description: The project is leveraging Artificial Intelligence and digital technologies such as smart/predictive algorithms and digital monitoring, reporting, and verification platforms to transform electrification planning, energy access delivery, and finance mobilization. These technologies promise efficiencies, transparency, and unprecedented opportunities to mobilize impact-based financing. Additionally, the project indicates that innovations in electric cooking with energy-efficient stoves are also gaining momentum, which could potentially involve the application of AI for improving energy efficiency and optimizing cooking processes.
- Unit/GP leading: Energy & Extractives
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Project lead contacts: Tigran Parvanyan - tigran.parvanyan@worldbank.org

Project 76: Climate Adaptation and Resilience for South Asia

- Project/initiative description: The project is utilizing AI and machine learning algorithms for data analytics and visualization. It mentions that the data analytics platform will support access and interactive analytics and visualization of services in the data and analytical services catalog, and that the system will also support access to these services by other online systems using standard protocols, including for use in machine learning/AI algorithms. This indicates that AI/ML will be utilized to enhance decision-making environments and support the development of decision support systems and dashboards.
- Unit/GP leading: Urban, Resilience and Land
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020

- Project end year: 2026
- Related SDGs: Related to SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate)
- Project lead contacts: Naho Shibuya - naho.shibuya@worldbank.org

Project 77: Southeast Asia Regional Program on Combating Marine Plastics (SEA-MaP)

- Project/initiative description: The project aims to leverage artificial intelligence for improved waste management of plastics, specifically in the area of collection and segregation. The use of digital tools incorporating artificial intelligence or radio frequency identification can enhance the traceability of consumer products, contributing to more effective waste management practices. These technologies align with innovative solutions sought for addressing plastic waste challenges, demonstrating the project's utilization of AI in enhancing waste management processes.
- Unit/GP leading: Environment, Natural Resources & the Blue Economy
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 15 (Life on Land)
- Project lead contacts: Kate Philp - kate.philp@worldbank.org

Project 78: Saint Lucia Human Capital Resilience Project

- Project/initiative description: This project is leveraging artificial intelligence (AI) through its partnership with an AI lab, potentially integrating AI technologies in the hospitality sector for improving operational efficiency or customer experience. Additionally, the consideration of strengthening the role of the National Apprenticeship Program (NAP) as a coordinating agency for on-the-job training opportunities suggests the potential use of AI or ML for optimizing training programs or matching apprentices with suitable opportunities.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Suhas Parandekar - suhas.parandekar@worldbank.org

Project 79: Tax Reform Operation

- Project/initiative description: Development of a module for tax accounting and analysis based on artificial intelligence (AI) ; Module for integration of payments for tax and other tax services with existing and alternative payment systems; Development and implementation of "Taxpayer" - an interactive electronic application for mobile devices for Android and IOS platforms; Electronic residency confirmation; Development of MoF information and analytical system for automation of state revenue accounting, analysis and forecasting.
- Unit/GP leading: Governance
- Project type: PforR
- Project status: Ongoing
- Project start year: 2021
- Project end year: 2026
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)

- Partners: Tax Committee under the Government of Tajikistan
- Any publicly available URL links/multimedia: <https://projects.worldbank.org/en/projects-operations/project-detail/P171892>
- Project lead contacts: Raul Junquera-Varela - raul.junquera-varela@worldbank.org

Project 80: Digital Tanzania Project

- Project/initiative description: The project is leveraging AI and other emerging technologies as part of the ICT skills training initiative. The focus on training ICT professionals in specialized areas, including AI, IoT, and cybersecurity, indicates a deliberate effort to build capacity in these advanced technologies. The project's emphasis on education related to sustainable digitization, including e-waste handling and energy efficiency, also aligns with the growing importance of AI and ML in sustainability efforts.
- Unit/GP leading: Digital Development
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Project end year: 2027
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure)
- Project lead contacts: Paul Seaden - paul.seaden@worldbank.org

Project 81: TANZANIA Accelerating Sustainable and Clean Energy Access Transformation in Eastern and Southern Africa Program

- Project/initiative description: The project is leveraging digital tools, satellite imagery, and smart/predictive algorithms, including applications of artificial intelligence, to transform electrification planning and energy-access delivery. Additionally, the project aims to use digital monitoring, reporting, and verification platforms to improve transparency in public-sector financing flows and create opportunities to mobilize impact-based financing. These activities demonstrate the project's use of AI and digital technologies to enhance energy access delivery and financing.
- Unit/GP leading: Energy & Extractives
- Project type: PforR
- Project status: Ongoing
- Project start year: 2024
- Project end year: 2028
- Related SDGs: Related to SDG 7 (Affordable and Clean Energy)
- Project lead contacts: Rhonda Lenai Jordan Antoine - rjordan@worldbank.org

Project 82: Tunisia Innovative Startups and SMEs Project

- Project/initiative description: The project is leveraging AI and machine learning by engaging with women-owned tech SMEs, startups, and women in STEM who are involved in areas such as big data, augmented/virtual reality, and artificial intelligence. The project is also seeking information related to the company's use of advanced technology including AI and machine learning for business purposes, indicating a focus on leveraging these technologies to drive innovation and business growth within the participating women-led tech companies.
- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: IPF
- Project status: Ongoing
- Project start year: 2019

- Project end year:2027
- Related SDGs: Related to SDG 8 (Decent work and economic growth)
- SDG 9 – Industry, Innovation, and Infrastructure
- Project lead contacts: Mihasonirina Andrianaivo - mihasonirina.andrianaivo@worldbank.org

Project 83: Digital Transformation for User-Centric Public Services

- Project/initiative description: The project is using AI and ML in Component 1 to improve social protection targeting, identify social security compliance and fraud, detect children at risk of drop-out, and tailor learning experiences using gaming, virtual reality, and interactive learning kiosks. This approach leverages AI/ML to enhance accuracy in predicting welfare levels and improving service delivery mechanisms through CivicTech tools for citizen engagement. Furthermore, the project explores the use of Cloud-based systems, Blockchain, and private sector investments in connectivity, demonstrating a comprehensive integration of AI/ML technologies for socio-economic development.
- Unit/GP leading: Governance
- Project type :IPF
- Project status: Ongoing
- Project start year: 2019
- Project end year:2025
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Dolele Sylla - dolele.sylla@worldbank.org

Project 84: Tunisia Integrated Disaster Resilience Program

- Project/initiative description: The project is using artificial intelligence and machine learning for various purposes such as hydrological monitoring and modeling, flood forecasting, and the development of a meteorological alert mapping tool. Additionally, the project aims to utilize big data and artificial intelligence for risk understanding and in the insurance sector. This includes the development and maintenance of a financial exposure database for Tunisia based on best practices from international experience and catastrophe risk insurance markets, as well as using crowdsourcing and big data to enrich the database and improve risk understanding for more competitive insurance rates.
- Unit/GP leading: Urban, Resilience and Land
- Project type: PforR
- Project status: Ongoing
- Project start year: 2021
- Project end year: 2027
- Related SDGs: Related to SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action)
- Project lead contacts: Dina Ranarifidy - dina.ranarifidy@worldbank.org

Project 85: Support for Transition to Labor Market Project

- Project/initiative description: The project includes the integration of the current IT system with modeling and artificial intelligence (AI) systems. This will likely involve leveraging AI for tasks such as data analysis, predictive modeling, or automation within the migration policies and work-permit application processes. The project seems to indicate a specific focus on utilizing AI for enhancing the Ministry's IT system and improving decision-making related to labor market and migration policies.
- Unit/GP leading: Social Protection & Jobs

- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Any publicly available URL links/multimedia:
- Project lead contacts: Dhushyanth Raju - dhushyanth.raju@worldbank.org

Project 86: Generating Growth Opportunities and Productivity for Women Enterprises Project

- Project/initiative description: The project is leveraging AI and data systems for better assessment and measurement of repayment performance and risk associated with women entrepreneurs. The use of artificial intelligence is aimed at reducing costs by applying risk analytics to assess and measure repayment performance, ultimately supporting the development and testing of psychometric tools for potential financial inclusion for women entrepreneurs. Therefore, the project is using AI and ML for more accurate risk assessment and reducing costs in supporting women entrepreneurs.
- Unit/GP leading: Social Sustainability and Inclusion
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Project end year: 2028
- Related SDGs: Related to SDG 1 (No Poverty), SDG 10 (Reduced Inequalities)
- Project lead contacts: Serena Cavicchi - scavicchi@worldbank.org

Project 87: Tax Administration Reform Project in Uzbekistan

- Project/initiative description: The project is leveraging artificial intelligence and machine learning for revenue forecasting, modern audit techniques, risk analysis, and data mining in tax administration. The text also highlights the potential of machine learning in challenging tax administrations to transform their business processes and align their products, services, and business models accordingly. These activities indicate a strategic use of AI/ML to improve tax IT and other emerging areas.
- Unit/GP leading: Governance
- Project type: IPF
- Project status: Ongoing
- Project start year: 2021
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Any publicly available URL links/multimedia:
- Project lead contacts: Raul Junquera-Varela - raul.junquera-varela@worldbank.org

Project 88: Investing and Innovating for Grassroots Health Service Delivery

- Project/initiative description: The project is using AI/ML to assess climate and disaster risk, leveraging predictive models to analyze the potential impact of extreme weather events such as sea level rise and flooding. By utilizing these advanced technologies, the project can anticipate and plan for the specific challenges posed by climate-related risks in different provinces of Vietnam, enabling more targeted and effective investments in climate-resilient infrastructure.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF

- Project status: Completed
- Project start year: 2019
- Project end year: 2025
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Any publicly available URL links/multimedia:
- Project lead contacts: Caryn Bredenkamp - caryn.bredenkamp@worldbank.org

Project 89: Vietnam University Development of VNU-Hanoi, VNU-HCM, and UD

- Project/initiative description: Under Research Excellence and Knowledge Transfer subcomponent, priority research areas will be materials science, biotechnology, information technology with focus on Artificial Intelligence (AI), environment and climate change, agriculture, tourism and digital economy for the HCMC and Mekong Delta region; and socio-economic policy analysis and data forecasting for Vietnam. Necessary infrastructure, equipment, technology and other support for the above mentioned research priorities will be provided.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Project end year: 2025
- Related SDGs:
 - SDG 4 (Quality Education)
 - SDG 16 (Peace and Justice Strong Institutions).
 - SDG 17 (Partnerships to achieve the Goal)
- Partners: The University of Danang (UD), Vietnam National University-Hanoi, Vietnam National University-HCM
- Any publicly available URL links/multimedia: <https://projects.worldbank.org/en/projects-operations/project-detail/P166656>
- Project lead contacts: Dung Vo - dung.vo@worldbank.org

Project 90: Technology for Youth and Jobs

- Project/initiative description: This project is leveraging AI and ML technologies through initiatives in the Techno Park, including those related to FinTech, augmented reality/virtual reality, and IoT. Additionally, the mention of artificial intelligence indicates the potential use of AI/ML technologies in the development and implementation of projects within the Techno Park, ultimately aiming to enhance the capabilities of small IT service firms in the West Bank and Gaza.
- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Project end year: 2029
- Related SDGs: SDG 8 (Decent work and economic growth) and SDG 9 (Industry, Innovation, and Infrastructure)
- Partners:
- Any publicly available URL links/multimedia:
- Project lead contacts: Zackaria Sabella - zackaria.sabella@worldbank.org

Project 91: Supporting an Education Reform Agenda for Improving Teaching, Assessment and Career Pathways

- Project/initiative description: The project is leveraging Artificial Intelligence (AI) and machine learning to deliver personalized remedial instruction tailored to the learning needs of individual students. The adaptive learning program for mathematics, developed as part of the project, will use AI and machine learning to better tailor classroom instruction and remedial education. This includes using AI/machine learning in schools with adequate digital infrastructure for the high-tech package, as well as incorporating classroom observations to assess the impact and cost-effectiveness of both high-tech and low-tech packages. Therefore, the project is using AI/ML to personalize and tailor educational content and instruction.
- Unit/GP leading: Education
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Related SDGs: Related to SDG 4 (Quality Education)
- Project lead contacts: Maja Capek - maja.capek@worldbank.org

Project 92: West Africa Unique Identification for Regional Integration and Inclusion - Phase 2

- Project/initiative description: The project is utilizing artificial intelligence and predictive analytics for the management of risks associated with the adoption of digital technologies, particularly in the context of biometric identifiers and digital service delivery. By addressing concerns such as surveillance, public accountability, discrimination, and trust in the use of artificial intelligence and predictive analytics, the project aims to mitigate risks, safeguard the poor and vulnerable, and improve the coverage of social safety programs, particularly during times of covariate shocks such as the COVID-19 pandemic. The focus on managing risks and fostering trust indicates the integration of AI/ML technologies for enhanced governance and service delivery.
- Unit/GP leading: Social Protection & Jobs
- Project type: IPF
- Project status: Ongoing
- Project start year: 2020
- Related SDGs: Related to SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Daria Lavrentieva - daria.lavrentieva@worldbank.org

Project 93: West Africa Food System Resilience Program (FSRP)

- Project/initiative description: The project is leveraging AI and machine learning for remote sensing and yield assessment, as well as for the transformation of the regional food security and agriculture information system to support decision-making. Specifically, the project aims to use AI and machine learning for agricultural technology evaluation, prioritize production systems tracking, and yield assessment through remote sensing. Additionally, the project mentions the use of AI, machine learning, and new technologies to advance information, sensing, telecommunication, and data communication in the context of meteorological and hydrological forecasting and the digitalization of agriculture and food security information systems.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022

- Related SDGs: Related to SDG 2 (Zero Hunger)
- Project lead contacts: Ashwini Sebastian - ashwini.sebastian@worldbank.org

Project 94: West Africa Food System Resilience Program (FSRP) Phase 2

- Project/initiative description: This project aims to improve the production of climate, hydromet, and agromet information using technical capacity for hydromet infrastructure, such as big data analytics and artificial intelligence. The use of AI and big data will enable the production of more accurate and timely information for decision-makers, farmers, and pastoralists. Additionally, the project includes the development of a strategy for further use of artificial intelligence and big data for climate, hydromet, and agromet information, indicating a focus on leveraging AI/ML technologies to enhance the project outcomes.
- Unit/GP leading: Agriculture and Food
- Project type: IPF
- Project status: Ongoing
- Project start year: 2023
- Related SDGs: Related to SDG 2 (Zero Hunger)
- Project lead contacts: Ashwini Sebastian - ashwini.sebastian@worldbank.org

Project 95: Harmonizing and Improving Statistics in West and Central Africa - Series of Projects 1 (HISWACA - SOP 1)

- Project/initiative description: The project is leveraging machine learning and artificial intelligence to drive data-based innovations, leading to unanticipated secondary uses of data that may create economic value. The improved quality and relevance of statistical production contribute to more informed evidence-based decision-making and may reduce risks associated with inadequate economic policy decisions, emphasizing the public good nature of the project's output.
- Unit/GP leading: Poverty and Equity
- Project type: IPF
- Project status: Ongoing
- Project start year: 2023
- Related SDGs: Related to SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities)
- Project lead contacts: Abdoullahi Beidou - abdoullahi.beidou@worldbank.org

Project 96: Health Security Program in Western and Central Africa

- Project/initiative description: The project is leveraging AI and machine learning through the development of a machine learning platform to process and cross-analyze regional epidemiological data, media, and other unstructured information and data sources. Additionally, the project aims to develop dashboards to support scenario planning, indicating the potential use of AI/ML for data analysis and prediction. The integration of One Health data using an interoperable digital platform also suggests the use of technology, potentially involving AI/ML, for data processing and analysis.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Carolyn Shelton - carolyn.shelton@worldbank.org

Project 97: Harmonizing and Improving Statistics in West and Central Africa - Series of Projects Two (HISWACA - SOP 2)

- Project/initiative description: The project is leveraging AI and machine learning to drive data-based innovations and improve the quality and relevance of statistical production for informed, evidence-based decision-making in various sectors. It acknowledges the inherently difficult economic valuation of data due to its nontrivial nature and the potential for unanticipated secondary uses of data to exceed the original value. This approach reflects a recognition of the increasing sophistication of AI and ML applications in deriving economic value from data and supporting evidence-based decision-making processes.
- Unit/GP leading: Poverty and Equity
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities)
- Project lead contacts: Mervy Viboudoulou Vilpoux - mervy.vilpoux@worldbank.org

Project 98: Zimbabwe COVID-19 Emergency Response Project

- Project/initiative description: The project is leveraging predictive models and geospatial tracking to monitor population mobility and identify hot spots during the COVID-19 response. These activities demonstrate the use of machine learning techniques to analyze and predict patterns of population movement and disease hot spots, aiding in the project's efforts to effectively target response measures.
- Unit/GP leading: Health, Nutrition & Population
- Project type: IPF
- Project status: Ongoing
- Project start year: 2022
- Project end year:
- Related SDGs: Related to SDG 3 (Good Health and Well-being)
- Project lead contacts: Fernando Montenegro Torres - fernando.montenegro@worldbank.org

Project 99: Inclusive Digitalization in Eastern and Southern Africa (IDEA)

- Project/initiative description: The development of policy and regulatory guidelines and standards to enable and promote the safe use of artificial intelligence (AI) and other emerging technologies, including for climate adaptation and mitigation;
- Unit/GP leading: Digital
- Project type: IPF
- Project status: Ongoing
- Project start year: 2024
- Related SDGs: Related to SDG 9 (Industry, Innovation, and Infrastructure) and SDG 16 (Peace, Justice, and Strong Institutions)
- Project lead contacts: Tim Kelly - tkelly@worldbank.org

Project 100: Mozambique Health Emergency Preparedness, Response and Resilience Project

- Project/initiative description: The project aims to strengthen the preparedness and resilience of the health system to effectively manage health emergencies. This involves leveraging artificial intelligence for predictive analytics, enhancing integrated surveillance

systems, expanding laboratory capacity, and improving emergency coordination. A key focus is ensuring the continuity of essential health services, including maternal health and gender-based violence support, especially during crises.

- Unit/GP leading: Health
- Project type: Investment Project Financing (IPF)
- Project status: Planning
- Project start year:2025
- Project end year:2030
- Related SDGs: SDG 3 (Good Health and Well-being) and SDG 16(Peace and Justice Strong Institutions)
- Project lead contacts:Joao Figueiredo Rodrigues E Pires, Kavita Watsa - jpires@worldbank.org

Project 101:Progestão Program - MPA Phase 1 State of Rio Grande do Sul
Project/initiative description: Development and implementation of data analytics tools for the RPPS, including artificial intelligence for automated processes and services. Application of artificial intelligence in procurement processes.

- Unit/GP leading: Governance
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing
- Project start year:2025
- Project end year:2030
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions)
- Partners: State Secretariat of Planning, Governance, and Administration
- Project lead contacts: Carolina Vaira - cvaira@worldbank.org

Project 102: Second Additional Financing for the Serbia Accelerating Innovation and Growth Entrepreneurship Project

- Project/initiative description: Further developing the field of Artificial Intelligence (AI) in Serbia, strengthening of R&D management capabilities. Specifically, the Government has requested: 1) €18.5 million (US\$20 million equivalent) for the Artificial Intelligence (AI) programs. This funding is to support grant programs that will incentivize research and application of AI, administered by the IF and SF. In addition, the AI Institute will receive technical support and grants against their existing Transformation Plan, part of the ongoing R&D Institutes transformation program, implemented currently under the oversight of the PIU and the Ministry.
- Unit/GP leading: FCI
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing
- Project start year:2024
- Project end year:2027
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions) and SDG 8 (Decent work and economic growth)
- Partners: Ministry of Science, Technological Development and Innovation (NITRA)
- Any publicly available URL links/multimedia:
- Project lead contacts: Maja Andjelkovic - mandjelkovic@worldbank.org

Project 103: Cote d'Ivoire Digital Acceleration Project

- Project/initiative description: The project aims to address gaps in laws, regulations, and public sector abilities to support digital initiatives and data-driven innovation, including Artificial Intelligence (AI). It seeks to create a better environment for digital transactions, market regulation, and private sector growth. By promoting interoperability, improving data governance, and speeding AI adoption, the project aims to boost the public administration's productivity, service delivery, and decision-making. Additionally, it addresses the shortage of skilled digital workers by expanding education in advanced digital fields, such as AI engineering, especially for youth and women, thereby driving innovation and productivity.
- Unit/GP leading: Digital
- Project type: Investment Project Financing (IPF)
- Project status: Planning
- Project start year: 2025
- Project end year: 2030
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions)
- Partners: Ministry of Digital Transition and Digitalization
- Project lead contacts: Xavier Decoster - xdecoster@worldbank.org

Project 104: Empowering Responsible Artificial Intelligence for Inclusive Development

- Project/initiative description: The project aims to advance global thought leadership and enhance the capacity of practitioners and client countries to responsibly develop, adopt, and scale artificial intelligence technologies through foundational tools, resources, and analytics, thereby accelerating digital transformation, enhancing governance, and promoting sustainable and inclusive economic growth.
- Unit/GP leading: Digital
- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year: 2025
- Project end year: 2026
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions) and SDG 17 (Partnerships to achieve the Goal)
- Partners: Partner-agnostic, other Global Practices and Country Teams
- Any publicly available URL links/multimedia: <https://www.worldbank.org/en/topic/digital/brief/emerging-technologies>
- Project lead contacts: Sharmista Appaya - sappaya@worldbank.org

Project 105: Exploring the Landscape of Data Use in the Development Economics Literature using Large Language Models (AI and LLMs)

- Project/initiative description: This project aims to build a Database of Data Use by developing AI models to detect when and how data is mentioned or used in documents. Just as citation databases like Google Scholar have transformed our ability to measure the impact of research, this initiative aims to create a framework for assessing the utility and impact of data. By systematically tracking data use, we can better understand the return on investment in data production, identify data gaps, and guide future funding and policy decisions. However, this challenge cannot be solved through manual methods. There is no widely adopted standard for citing data; references often appear in inconsistent or unstructured forms. AI makes this task feasible for the first time. By learning to recognize the context in which data is referenced, regardless of how it is cited or described, AI enables scalable and intelligent detection of data use across large

volumes of text. By uncovering where and how data is used—or not—this project helps ensure that development efforts are grounded in evidence and that investments in data yield real-world impact.

- Unit/GP leading: DECCS
- Project type: Research Projects
- Project status: Ongoing
- Project start year: 2023
- Project end year: 2026
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 2 (Zero Hunger)
 - SDG 3 (Good Health and Well-being)
 - SDG 4 (Quality Education)
 - SDG 5 (Gender Equality)
 - SDG 6 (Clean Water and Sanitation)
 - SDG 7 (Affordable and Clean Energy)
 - SDG 8 (Decent Work and Economic Growth)
 - SDG 9 (Industry, Innovation, and Infrastructure)
 - SDG 10 (Reduced Inequality)
 - SDG 11 (Sustainable Cities and Communities)
 - SDG 12 (Responsible Consumption and Production)
 - SDG 13 (Climate Action)
 - SDG 14 (Life Below Water)
 - SDG 15 (Life on Land)
 - SDG 16 (Peace and Justice Strong Institutions)
 - SDG 17 (Partnerships to achieve the Goal)
- Partners: Knowledge for Change Program (KCP), World Bank - UNHCR Joint Data Center on Forced Displacement (JDC)
- Any publicly available URL links/multimedia:
 - Guide to model development: <https://worldbank.github.io/ai4data-use/docs/introduction.html>
 - Deck: https://www.canva.com/design/DAGj-j4M_wM/Qkk8lXu7mpqf_BDkLqCCLw/view?utm_content=DAGj-j4M_wM&utm_campaign=designshare&utm_medium=link2&utm_source=uniqueLinks&utm_id=h9df46a36ba
 - Link to Hugging Face model resources: <https://huggingface.co/ai4data>
 - World Bank DEC publicity post: https://www.linkedin.com/posts/world-bank-development-economics_ai-microsoft-data-activity-7328479216067354626-GIZ5?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAJO-ckBkoLZMr8LEM1sSpJ4I3CRLO8cwg4
 - ICLR Workshop: <https://www.climatechange.ai/papers/iclr2025/63>
- Project lead contacts: Aivin Solatorio (asolatorio@worldbank.org) - asolatorio@worldbank.org

Project 106: Digital Cabo Verde Project

- Project/initiative description: This work was initiated under the parent project: Additional Financing for the Digital Cabo Verde Project through market analysis. It involves strategic and legal framework for emerging technologies. The objective of this activity is to

support the formulation, adoption, and implementation of a robust strategic and legal framework for emerging technologies. This activity will finance support for the design and implementation of a strategy for Artificial Intelligence (AI) and other emerging technologies and its implementation to improve government efficiency and services (i.e., proactive services)

- Unit/GP leading: Digital
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing
- Project start year: 2020
- Project end year: 2025
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions) and SDG 17 (Partnerships to achieve the Goal)
- Partners:
 - Directorate of Telecommunications and Digital Economy (Ministry of Digital Economy)
 - Special Projects Management Unit
 - PIU (UGPE)
 - Ministry of Digital Economy
- Project lead contacts: Camila Mejia Giraldo - cmejiagiraldo@worldbank.org

Project 107: Belarus Higher Education Modernization Project

- Project/initiative description: Flexible delivery modes will focus on modern delivery modes, approaches and instruments like online technology, use of artificial intelligence, virtual and augmented reality, etc. provide important opportunities to modernize teaching and learning, reach students in remote areas and create more inclusive tertiary education systems
- Unit/GP leading : Education
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing
- Project start year: 2020
- Project end year: 2025
- Related SDGs: SDG 4 (Quality Education) and SDG 17 (Partnerships to achieve the Goal)
- Partners: Ministry of Education
- Project lead contacts: Tigran Shmis - tshmis@worldbank.org

Project 108: Serbia - Accelerating Innovation and Growth Entrepreneurship Project : Additional Financing

- Project/initiative description: The development objective of the Accelerating Innovation and Growth
- Entrepreneurship Project for Serbia (SAIGE) is to improve: (i) the relevance and excellence of scientific research, and (ii) innovative entrepreneurship and access to finance for enterprise growth, as a way of contributing to Serbia's growth and competitiveness. This second additional financing (AF) for the project will be used to scale up the ongoing SAIGE activities and to further enhance client innovation capacity through better research and development (R and D) and entrepreneurship in the areas of artificial intelligence (AI) and biotechnology, to increase the country's competitiveness on global markets.
- Unit/GP leading: Finance, Competitiveness and Innovation
- Project type: Investment Project Financing (IPF)
- Project status: Ongoing

- Project start year:2024
- Related SDGs:
- SDG 1 (No Poverty)
- SDG 9 (Industry, Innovation, and Infrastructure)
- SDG 17 (Partnerships to achieve the Goal)
- Partners: LEGOP played a key role in helping develop a trustworthy AI risk mitigation framework for the project, ensuring that innovative activities financed under the grants distributed under the project are conducted in a safe and responsible manner.
- Any publicly available URL links/multimedia: <https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/099090924185512964>
- Project lead contacts : Maja Andjelkovic - mandjelkovic@worldbank.org

Project 109: Tools for Identifying Human Rights Impact and Algorithmic Accountability of AI in World Bank Operations

- Project/initiative description: The objective of this project is to raise awareness of the World Bank staff on various Human Rights risks resulting from the use of AI in World Bank-financed Projects and knowledge work, and to develop a set of recommendations and tools to help with the assessment and mitigation of AI risks throughout the “project cycle”.
- Unit/GP leading: LEGOP/LEGLA
- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year:2023
- Project end year:2026
- Related SDGs: SDG 16 (Peace and Justice Strong Institutions)
- Partners: World Bank Human Rights Trust Fund
- Project lead contacts: David Satola - dsatola@worldbank.org

Project 110: Global Trends in AI Governance: Evolving Country Approaches

- Project/initiative description: This report explores the emerging landscape of AI governance, providing policymakers with an overview of key considerations, challenges, and global approaches to regulating and governing AI. It examines the foundational elements necessary for thriving local AI ecosystems, such as reliable digital infrastructure, a stable and sufficient power supply, supportive policies for digital development, and investment in local talent. As countries navigate this complex landscape, the report highlights the need to encourage innovation by mitigating risks like bias, privacy violations, and lack of transparency, emphasizing the importance of sustainable growth and responsible AI governance.
- Unit/GP leading: Digital
- Project type: Advisory Services and Analytics (ASA)
- Project status: Completed
- Project start year:2024
- Project end year:2024
- Related SDGs: SDG 9 (Industry, Innovation, and Infrastructure) and SDG 12 (Responsible Consumption and Production)
- Partners: LeGOP, Turing Institute
- Any publicly available URL links/multimedia: <https://openknowledge.worldbank.org/entities/publication/a570d81a-0b48-4cac-a3d9-73dff48a8f1a>
- Project lead contacts: Sharmista Appaya - sappaya@worldbank.org

Project 111: Transmitting AI Training: Evidence from Policymakers in Pakistan

- Project/initiative description: How does AI training impact policymaking? We randomly assign a rigorous “AI for policy” workshop to deputy ministers in Pakistan and find that deputy ministers shift their attitudes towards AI and increase funding for digitization, a precursor to AI. During this randomized evaluation of the training program, we then cross-randomized ministers to receive AI fairness activism that emphasizes the inescapability of algorithmic bias. AI fairness activism causes policymakers to report greater costs associated with AI in policymaking and decrease funding for digitization. Both interventions transmit from the deputy ministers to their subordinate staff and impact the population. Amid land record digitization efforts, treated ministers’ jurisdictions reduced delays in handling land disputes by 33%. AI training increases downstream support for AI in policy making while AI fairness activism reduces the effect of the training.
- Department/Division: Department/Division: Development Impact Evaluation (DIME)
- Project type: Development Research Report
- Project status: Research Paper
- Project start year: 2020
- Project end year: 2024
- Related SDGs: SDG 16 (Peace, Justice and Strong Institutions)
- Partners: Pakistan National Institute for Public Policy
- Any publicly available URL links/multimedia: https://users.nber.org/~dlchen/papers/Transmitting_AI_Training.pdf
- Project lead contact: Daniel Chen - dchen9@worldbank.org, Sultan Mehmood - smehmood@nes.ru

Project 112: Predictive Performance of household poverty models using Machine Learning

- Project/initiative description: Household surveys give a precise estimate of poverty; however, surveys are costly and can only be fielded infrequently. This project aims at comparing the predictive performance of models based on globally available, spatially referenced public and private sector data sources that have been used to estimate poverty. We include daytime and nighttime satellite imagery, Facebook marketing data, OpenStreetMap data, among other sources. The project trains a machine learning model to predict levels and changes in poverty relying on ground truth poverty data across 82,000 villages and 59 countries, spanning Africa, Asia, the Americas, and Europe. Globally, the model explains over 60% of the variation of an asset-based poverty index at the village level and over 70% of the variation at the district level; in some countries, the model explains over 90% of the variation in poverty at the district level. Features from OpenStreetMaps, nighttime lights, and daytime imagery are most important in explaining poverty, where some features from Facebook Marketing data—such as the proportion of active Facebook users with interests in restaurants and luxury goods—are highly (negatively) correlated with poverty across most countries. Accuracy for predicting changes in poverty is lower, but the model explains above 25% of the variation in poverty in some countries. The model performs best in lower income countries and in countries with more variation in levels/changes in poverty.
- Department/Division: Department/Division: Development Impact Evaluation (DIME)
- Project type: Development Research Reports
- Project start year: 2019
- Related SDGs: SDG 1 (No Poverty)
- Project lead contact: Rob Marty - rmarty@worldbank.org , Alice Duhaut - aduhaut@worldbank.org

Project 113: Croatia Business Environment Reform with applied AI

- Project/initiative description: The World Bank has been supporting the Ministry of Economy and Sustainable Development (MoESD) of Croatia in digitalizing Government to Business (G2B) service delivery for business registration and business licensing. This advisory work is carried out by the Bank at the request of the Government, with funding by the European Union, and in cooperation with the European Commission's DG REFORM. The work involved piloting an innovative approach for mapping business administrative procedures that involved the application of AI/Machine Learning (ML) and Natural Language Processing (NLP). The developed digital algorithm processed 110 laws and 1,204 bylaws from the registry of regulations to identify more than 9,000 potential regulatory requirements in 33 administrative areas, including business authorizations (permits, licenses, etc.), and minimum conditions. Further, the data cleansing resulted in a mapping database of ~1,500 business-related administrative procedures. The Bank also produced a report on recommendations for publishing the mapping online and on a mechanism to keep the mapping data updated following regulatory changes, and a roadmap for modernization and digitalization of Government to Business (G2B) service delivery.
- Department/Division: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Advisory Services
- Project status: Active
- Project start year: 2019
- Project end year: 2023
- Related SDGs: SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace and Justice Strong Institutions)
- Partners (internal and external to WBG): European Union and Ministry of Economy and Sustainable Development (MoESD) of Croatia
- Any publicly available URL links/multimedia: [Assessment of Digital Government to Business Services Business Environment Reform II Croatia](#)
- Project lead contact: Goran Vranic - gvranic@worldbank.org

Project 114: Disruptive Technologies for Agile Business Regulation

- Project/initiative description: The Disruptive Technologies for Agile Business Regulation (Agile & RegTech KPD) was implemented from April 2019 through May 2021 to develop and pilot agile regulation approaches to unlock investments and enable regulatory service delivery while safeguarding public policy concerns and mitigating risks. The main result is introducing a new solution area/workstream within the World Bank Group - Regulatory Technology (RegTech). The project supported organizing one of the first workshops on Agile Regulation in cooperation with OECD, European Commission, UK Government Better Regulation Executive (BRE), and Massachusetts Institute of Technology Internet Policy Research Initiative (MIT-IPRI). For the agile regulation component, on the onset of the COVID-19 pandemic in March and April 2020, the project produced an internal white paper co-authored with OECD on AI and other emerging technologies to inform regulatory and non-regulatory measures to fight COVID-19. For the integrated regulatory delivery, the project developed research and publication on the New Technologies for Regulatory Delivery under the Donor Committee for Enterprise Development (DCED)
- Department/Division: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Development Research Reports
- Project status: Completed
- Project start year: 2019
- Project end year: 2021

- Related SDGs: SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace and Justice Strong Institutions)
- Partners:
 - Internal WBG partners: IFC
 - External partners: OECD, European Commission, UK Government Better Regulation Executive (BRE), and Massachusetts Institute of Technology (MIT)
- Any publicly available URL links/multimedia:
 - Use of New Technologies for Regulatory Delivery, available at: <https://www.enterprise-development.org/wp-content/uploads/DCED-BEWG-Use-of-New-Technologies-in-Regulatory-Delivery.pdf>
 - Blog and database: Technology helps strengthen countries' regulatory capacity to respond to COVID-19, available at: <https://blogs.worldbank.org/psd/technology-helps-strengthen-countries-regulatory-capacity-respond-covid-19>
- Project lead contact: Goran Vranic - gvranic@worldbank.org

Project 115: Business environment guide and diagnostics

- Project/initiative description: This project developed a business environment operational guide for project teams and a framework for a business regulation diagnostic framework to inform WBG analytics and facilitate the design of business environment reform programs. The business environment operational guide provides the overall framework and chapters for various business environment topics (entry and exit, operations, regulatory technology, informality, gender). The other deliverables (diagnostic framework, policy note on data-driven business registries, deliver framework for licensing and inspections, and the determinants of informality note) complement the operational guide by developing further the topic presented in the guide and providing more detailed toolkits. The guidance note on Data Driven Company Registry takes a deep dive into the frontier developments in the use of data, AI and other emerging technologies for company and business registration. The note summarizes key regulatory policies, presents an initial maturity model, and an implementation approach with a high-level roadmap. The note benefits from lessons learned from successful pilot projects (Denmark and Greece). It explores AI-augmented real-time company registration and the use of AI for the prevention of fraudulent behavior. It complements the chapter on Regulatory Technology Data and G2B in the Business Environment Operational Guide.
- Department/Division: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Development Research Reports
- Project status: Completed
- Project start year: 2020
- Project end year: 2022
- Related SDGs: SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace and Justice Strong Institutions)
- Project lead contact: Sylvia Solf - ssolf@worldbank.org

Project 116: Logistics performance index

- Project/initiative description: Logistics Performance Index 2022: The objective of this activity is to produce a new version of the Logistics Performance Index (LPI; a biennial index established by the World Bank in 2007) and its component indicators, using Machine Learning and Big Data techniques, to make sense of large supply chain tracking data. This dataset will help policymakers to benchmark a country's logistics performance

and to develop informed policies and interventions in trade- and transport-related infrastructure, border management, and logistics services delivery.

The project relies on Machine Learning for two components:

- Deriving country indicators mimicking the scale of the survey bases LPI, using the information from a large number of supply chain tracking variables.
- In the future, derive logistics related indicators from GIS information (E.g. density of logistics) or social network data (Twitter, LinkedIn). Research in this area is postponed until delivery of the main indicator in late 2022.
- Department/Division: Finance, Competitiveness, and Innovation Practice Unit
- Project type: Advisory Services and Analytics (ASA)
- Project start year: 2019
- Project end year: 2022
- Related SDGs: SDG 8 (Decent work and economic growth) and SDG 9 (Industry, Innovation, and Infrastructure)
- Partners (internal and external to WBG):
 - WBG-internal (all in advisory role): Transport Global Practice Unit, Development Economics Unit (DEC)
 - WBG-external (data partners): Universal Postal Union (UPU); TradeLens; IATA CargoIQ; MDS Transmodal
 - WBG-external (advisory role): UNCTAD
- Project lead contacts: Christina Wiederer - cwiederer@worldbank.org, Jean-Francois Arvis - jarvis1@worldbank.org

Project 117: Economic networks

- Project/initiative description: This project takes stock of existing leads and POC before proposing a concept note to propose applying ML-inspired methodology to improved trade costs and trade composition/complexity databases. The concept is to exploit the low effective dimensionality of actual trade networks and identify with ML the latent features. This applies to trade composition and trade costs. ML algorithms identify latent geometry consistently with known elementary economic mechanisms (productivity, gravity).
- Unit/GP leading: Finance, Competitiveness, and Innovation Practice Unit (Trade and Competitiveness)
- Project type: Advisory Services and Analytics (ASA)
- Project start year: 2022
- Project end year: 2023
- Related SDGs: SDG 9 (Industry, Innovation, and Infrastructure)
- Partners (internal and external to WBG): WTO
- Any publicly available: internal presentation available, earlier research working papers
- Project lead contacts: Jean-François Arvis - jarvis1@worldbank.org

Project 118: Fraud analytics in Algeria

- Project/initiative description: This multidimensional project provides technical support to Algeria's Customs Services as part of a broader project regarding barriers to exports in Algeria. One of the activities consist in developing a machine learning model to predict the probability that a new-submission is fraudulent. Algerian Customs has shared its historical database with the Bank to facilitate this activity.

- Department/Division: Finance, Competitiveness, and Innovation Practice Unit and Middle East / North Africa Regional Unit
- Project type: Technical Assistance
- Project start year: 2019
- Project end year: 2023
- Related SDGs : SDG 9 (Industry, Innovation, and Infrastructure)
- Partners (internal and external to WBG): WBG-internal: Development Economics Unit
- Any publicly available: internal presentation available, working papers summarizing experimentation in preparation.
- Project lead contacts: Jean-François Arvis - jarvis1@worldbank.org

Project 119: Fraud analytics Kenya

- Project/initiative description: This project aims at helping the Kenyan Revenue authority implement tools to better target fraud of corruption, including AI application similar.
- Unit/GP leading it: Macroeconomics, Trade, and Investment Practice Unit
- Project type: Technical Assistance
- Project status: Proof of concept stage
- Project start year: 2020
- Project end year: 2023
- Related SDGs: SDG 9 (Industry, Innovation, and Infrastructure)
- Partners (internal and external to WBG): WBG-internal, Development Economics Unit
- Project lead contacts: Jean-François Arvis - jarvis1@worldbank.org

Project 120: Fraud analytics Armenia aka smart risk management

- Project/initiative description: This project helps the Armenian revenue authority implement a fraud targeting tool based on AI.
- Unit/GP leading: Finance, Competitiveness, and Innovation Unit
- Project type: Technical assistance as part of a large EU-funded program on tax reform.
- Project start year: 2022-23
- Project end year: 2023
- Related SDGs: SDG 9 (Industry, Innovation, and Infrastructure)
- Partners (internal and external to WBG): WBG-internal: Macroeconomics, Trade, and Investment Practice Unit; Development Economics Unit
- Project lead contacts: Jean-François Arvis- jarvis1@worldbank.org

Project 121: Monitoring hate speech and misinformation on social media in Nigeria

- Project/initiative description: The World Bank Development Impact Evaluation Department (DIME) and the Nigeria team of the UK Foreign, Commonwealth and Development Office (FCDO) have launched a collaboration to track and understand the spread and impact of misinformation, fake news, hate speech and divisive narratives in Nigeria. This interactive dashboard highlights trends in the proliferation of hate speech and fake news on Twitter and patterns of internet searches containing references to ethnic or religious groups and general terms associated with politics and potential conflict.
- Department/Division: Development Impact Evaluation Unit (DIME) and Data Analytics and Tools Unit (DECAT)
- Project type: Development Research Reports
- Project start year: 2021

- Project end year: 2023
- Related SDGs: SDG 11 (Sustainable Cities and Communities) and DG 16 (Peace and Justice Strong Institutions)
- Partners (internal and external to WBG): UK Foreign, Commonwealth and Development Office (FCDO)
- Any publicly available URL links/multimedia: <https://datanalytics.worldbank.org/ng-social-media-analytics/>
- Project lead contact: Sam Fraiberger - sfraiberger@worldbank.org ,Victor Orozco - vorozco@worldbank.org

Project 122: ImpactAI

- Project/initiative description: With a growing development finance gap (estimated at \$4 trillion in 2024), it is critical to effectively allocate limited resources for maximum impact. With the proliferation of development research, experiments, and outcomes, decision-makers often face information overload and difficulty in identifying the most effective interventions in specific contexts. Traditional methods of accessing research literature, including meta-analysis, are often slow and cumbersome, making it challenging for decision-makers to leverage this information. Moreover, existing GenAI tools do not allow for quantitative normalization of results to compare policy interventions' effectiveness across studies. ImpactAI, our prototype, is an AI-powered human-centered evidence synthesis tool, initially funded by Google.org, which uses reliable, actionable insights from rigorous social science research to inform policy decisions. Unlike existing AI-for-research tools, ImpactAI's accessible and user-friendly chat interface aggregates quantitative research summaries and interactive visualizations - facilitated by our expert-curated knowledge database of 7k+ randomized controlled trials. By offering months of research analysis in seconds, ImpactAI shortens the typically arduous path from gathering and analyzing evidence to designing actionable, contextual policies that expand choices and reveal greater information. The demand for these insights is large in a potential market of ~6.5 million policymakers. While still in the development phase, in the last twelve months, senior leaders from 79 multilateral and bilateral organizations and other development institutions have requested access to our prototype with 10 global organizations slated for beta-testing. Many of these stakeholders are policymakers from the Global South to whom we demoed ImpactAI recently during workshops in Togo (300+ participating senior leaders from 20+ government entities) and Cape Town (300+ participating senior leaders from 15+ government entities). This strong signal demonstrates ImpactAI's potential to enable more informed policy choices in a shorter time span.
- Department/Division: DECDI
- Project type: Development Research Reports
- Project status: Ongoing
- Project start year: 2023
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 2 (Zero Hunger)
 - SDG 3 (Good Health and Well-being)
 - SDG 4 (Quality Education)
 - SDG 5 (Gender Equality)
 - SDG 6 (Clean Water and Sanitation)
 - SDG 7 (Affordable and Clean Energy)
 - SDG 8 (Decent Work and Economic Growth)
 - SDG 9 (Industry, Innovation, and Infrastructure)
 - SDG 10 (Reduced Inequality)

- SDG 11 (Sustainable Cities and Communities)
- SDG 12 (Responsible Consumption and Production)
- SDG 13 (Climate Action)
- SDG 14 (Life Below Water)
- SDG 15 (Life on Land)
- SDG 16 (Peace, Justice, and Strong Institutions)
- SDG 17 (Partnerships for the Goals)
- Partners (internal and external to WBG): Google
- Any publicly available URL links/multimedia: <https://impactai.worldbank.org/>
- Project lead contacts: Samuel Paul Fraiberger - sfraiberger@worldbank.org

Project 123: ZHAI

- Project/initiative description: Compounding crises – including food insecurity, conflict, and diseases – threaten millions of lives worldwide. When emergencies occur, marginalized communities suffer the most, with limited ability to respond. Forecasting impending crises is crucial for anticipatory actions that build resilience against shocks, but existing predictive models are hindered by incomplete or outdated data sources and measures – especially since the halt of FEWS NET. ZHAI (ZeroHungerAI) utilizes novel natural language processing (NLP) methods on non-traditional data sources like news articles to uncover and track food insecurity risk factors. Our pilot improves food crises forecasts across 37 countries by up to 46%, predicting crises as far as a year in advance, even in data-scarce environments – enabling community organizations and local governments to take concrete, anticipatory actions that save citizens' lives and decrease humanitarian costs. Beyond predictions, our approach offers continuous, near-real-time insights into the drivers of crises outbreaks – offering stakeholders, such as local governments, crucial information which empowers them to tailor the response to crises' unique local conditions. Supported by Google.org, we are turning the research pilot into a live public good, with weekly, district-level updates on food insecurity risks across all 78 International Development Association (IDA) countries.
- Department/Division: DECDI
- Project type: Development Research Reports
- Project start year: 2023
- Related SDGs: SDG 2 (Zero Hunger) and SDG 13 (Climate Action)
- Partners (internal and external to WBG): Google and New York University
- Any publicly available URL links/multimedia
 - <https://www.science.org/doi/10.1126/sciadv.abm3449>
 - <https://www.worldbank.org/en/about/unit/unit-dec/impactevaluation/ai#2>
- Project lead contacts: Samuel Paul Fraiberger - sfraiberger@worldbank.org, Philipp Zimmer - pzimmer@worldbank.org

Project 124: Enhancing Self-Reliance and Preparedness for Forced Displacement in the Great Lakes Region

- Project/initiative description: Project Component 2 ("Forecasting population movements for forced displacement preparedness") Developed AI models predicting the number of refugees entering Uganda from South Sudan and DRC 4-to-6 months in advance at over 80% accuracy. The performance informed a GoU request for the models to be run live and trigger disbursement of finance for the world's first displacement risk financing mechanism (the displacement crisis response mechanism (DCRM)). DCRM 1.0 released finance after per-person public service pressure levels were breached. This enabled

resources to be allocated where needed most within a project lifecycle, but left host communities exposed to increased pressure while disbursement, procurement, and construction took place, straining refugee and host community relations. Prediction-based disbursement would enable capacity construction before pressure increases, when refugees arrive. It will also support humanitarian partners' planning and operations. The model ingests data representing hundreds of dimensions of 90+ variables representing change in the climate, economy, built environment, political and violence events, and online language and searches about these phenomena. Aside from high predictive accuracy, analysis of the model also identify which factors (real and perceived) were most associated with change in levels of refugee arrivals informing development and humanitarian policy and operations in DRC and South Sudan to be more precise and effective in addressing drivers of displacement.

- Department/Division: Social Development
- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year: 2025
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 3 (Good Health and Well-being)
 - SDG 4 (Quality Education)
 - SDG 6 (Clean Water and Sanitation)
 - SDG 9 (Industry, Innovation, and Infrastructure)
 - SDG 10 (Reduced Inequality)
 - SDG 11 (Sustainable Cities and Communities)
 - SDG 12 (Responsible Consumption and Production)
 - SDG 13 (Climate Action)
 - SDG 17 (Partnerships for the Goals)
- Partners (internal and external to WBG):
 - Finance Competitiveness & Innovation
 - Fragility, Conflict and Violence
 - UNHCR
 - Government of Uganda (Office of Prime Minister)
- Any publicly available URL links/multimedia:
 - <https://www.financialprotectionforum.org/blog/according-to-plan-second-activation-of-ugandas-displacement-crisis-response-mechanism-dcrm>
 - <https://documents1.worldbank.org/curated/en/472101606119818621/pdf/Data-Driven-Development-Response-to-Displacement-Crisis-in-Uganda-The-Displacement-Crisis-Response-Mechanism.pdf>
 - https://drive.google.com/mcas.ms/file/d/1LCf0INV1agQVbSlqN4wFu1MfyhW_tgC5/view
- Project lead contacts: Matthew James Keir Stephens - mstephens@worldbank.org

Project 125: Corruption risks alerts in procurement systems enhanced by AI

- Project/initiative description: Systems utilizing AI to assist in data analysis for identifying red flags of corruption within public procurement systems by integrating and linking to other related databases
- Department/Division: Institutions Global Department

- Project type: Advisory Services and Analytics (ASA)
- Project status: Ongoing
- Project start year: 2024
- Project end year: 2026
- Related SDGs: SDG 16 (Peace, Justice, and Strong Institutions)
- Partners (internal and external to WBG):
 - Anticorruption Agencies
 - Supreme Audit Institutions
 - Procurement Offices
- Any publicly available URL links/multimedia: https://www.bing.com/search?pglt=171&q=GRAS+risks+assessment+world+bank&cvid=483d65d43cc1465fae7f9df4f907838c&gs_lcrp=EgRIZGdlKgYIABBFgDkyBggAEEUYOTIGCAEQABhAMgYIAhAAGEAyBggDEAAyQDIICAQQ6QcY_FXSAQkxNDQ3M2owajGoAgCwAgA&adppc=EDGEESS&PC=U531&FPIG=2E993AA41B2E4655B757F04D4D8C0536&first=11&FORM=PORE
- Project lead contacts: Juan Pablo Guerrero Amparan- jguerreroampara1@worldbank.org, Daniel Ortega- dorteganieto@worldbank.org

Project 126: Algorithmic Assignment of Mediators to Court Cases

- Project/initiative description: In Kenya, many court cases concerning land, inheritance, custody, and family matters are referred to the newly introduced court-annexed mediation (CAM) system. However, 58% of mediation cases are not successfully resolved and returned to the court, and agreement rates vary greatly by mediator. In a partnership between the CAM, The World Bank and Virginia Tech, this project uses historical data on mediation cases to design and pilot an algorithm that can enhance the assignment of cases to mediators. In a randomized controlled trial, the study aims to evaluate the impact of enhanced mediator assignment via algorithmic recommendations, and thus rigorously evaluate whether AI-enabled case assignment can improve the outcomes and well-being of mediation parties.
- Department/Division: DECRG
- Project type: Development Research Reports
- Project status: Planning
- Project start year: 2021
- Project end year: 2026
- Related SDGs: SDG 16 (Peace, Justice, and Strong Institutions)
 - Partners (internal and external to WBG):
 - At the World Bank, the Development Research Group, the Development Impact Evaluation (DIME) Department, and the Institutions Global Department are involved.
 - The Kenyan Judiciary, Court-Annexed Mediation
 - Virginia Tech.
- Project lead contacts: Anja Sautmann - asautmann@worldbank.org and Antoine Deeb adeeb1@worldbank.org

Project 127: AI in the Classroom: Evaluating the Impact of Teacher Training on Teaching Practices and Student Outcomes

- Project/initiative description: Can AI Improve Teaching Practices and Student Learning? This study explores whether the use of Artificial Intelligence can enhance teaching practices and improve student learning outcomes in low- and middle-income contexts. Conducted as a field experiment at the primary school level in Lima, Peru, the study

involves Grade 6 teachers participating in a structured training program designed to integrate Large Language Models into their teaching practices. Developed in close collaboration with teachers, this program is tailored to the local context to ensure relevance and practicality. The program includes an initial training session covering AI literacy, responsible use principles, and hands-on practice with real-world scenarios tailored to local educational needs. Key applications include adapting lesson plans for diverse student levels, creating curriculum-aligned assessments, and streamlining administrative tasks. In addition to evaluating the training program, the study introduces a cross-randomized design to compare two types of ongoing support provided throughout the academic year: peer-based networks and authority-led guidance. This component aims to identify which support system is more effective in promoting the adoption and sustained use of AI in teaching practices. The findings will contribute to a growing body of evidence on the potential of AI-powered tools in education, particularly in resource-constrained settings. By providing insights into effective training methodologies, support structures, and implementation strategies, the research will offer policy recommendations.

- Project type: Development Research Reports
- Project status: Ongoing
- Project start year: 2025
- Project end year: 2026
- Related SDGs: SDG 4 (Quality Education)
- Partners (internal and external to WBG): Regional Directorate of Education, Lima, Peru
- Project lead contacts: Carolina Lopez- carolina_lopez@worldbank.org and Ezequiel Molina molina@worldbank.org

Project 128: Can one-shot LLM feedback improve the quality of care delivered by frontline healthworkers in Nigeria?

- Project/initiative description: This project tests whether a generalist LLM can improve the quality of care in community health clinics by providing “attending physician” style feedback to frontline health workers in Kano, Nigeria. In a blinded randomized evaluation, Medical Officers assess potential treatment errors in both original and LLM-assisted patient records created by Community Health Extension Workers (CHEWs). This test is intended to answer both whether the LLM is able to detect diagnostic or treatment mistakes in clinical practice, and whether CHEWs respond to such feedback by making better treatment decisions. To protect patients, actual diagnosis and treatment of the patient are decided by the Medical Officer before reviewing any information potentially affected by the LLM. The implementation – integration of one-shot LLM feedback into the English-language EMR of a small private clinic network- strips away technology and language-based frictions that would be encountered in typical clinical settings in Nigeria, in order to provide proof-of-concept evidence whether a (prompt-engineered) generalist LLM is capable of providing accurate and actionable feedback to frontline providers in low-resource settings that have the potential to improve patient care.
- Department/Division: DECRG
- Project type: Development Research Reports
- Project status: Ongoing
- Project start year: 2024
- Project end year: 2025
- Related SDGs: SDG 3 (Good Health and Well-being)
- Partners (internal and external to WBG):
 - Nirmal Ravi, EHA Clinics Nigeria
 - Jason Abaluck, Yale University
 - Robert Pless, George Washington University

- Aaron Schwartz, University of Pennsylvania
- Project lead contacts: Anja Sautmann - asautmann@worldbank.org

Project 129: Digital Development and AI Applications for Climate Change Adaptation in Agriculture in Africa

- Project/initiative description: Farms in Africa are among the most vulnerable businesses to the impacts of a rapidly changing climate. This project compiles a broad range of granular data—derived from satellite imagery and machine learning algorithms—to assess climate vulnerability across the continent. The data includes grid-cell-level information on soil health, crop productivity, and climate conditions. Our first objective is to identify areas with the greatest potential for productivity gains and the highest exposure to climate risks in Africa. In the next phase, we plan to partner with an AI-based virtual agronomist tool that delivers tailored technical guidance to farmers. By integrating satellite data with local inputs from farmers, this tool can offer context-specific recommendations to improve agricultural practices. We aim to test whether AI-based tools can effectively deliver actionable insights and reduce the cost of technical assistance at the local level.
- Department/Division: Office of the Chief Economist, Africa Region
- Project type: Development Research Reports
- Project status: Planning
- Project start year: 2025
- Project end year: 2026
- Related SDGs:
 - SDG 1 (No Poverty)
 - SDG 2 (Zero Hunger)
 - SDG 13 (Climate Action)
- Partners (internal and external to WBG):
- Andrew L. Dabalen, Aparajita Goyal at the Office of the Chief Economist
- Project lead contacts: Ruozi Song - rsong1@worldbank.org

Project 130: Automatic Loan Approval and Gender Bias in SME Lending

- Project/initiative description: This project examines whether automatic credit approval can reduce gender bias in SME lending. We collaborated with a bank in Peru that piloted a new screening tool to generate psychometric credit scores. Applicants who scored above a predefined threshold were automatically offered a loan with a size tied to their score, while those below the threshold were assessed by a loan officer. Using a regression discontinuity design and credit bureau data, we compare loan offers and loan sizes of women and men applicants within a narrow window around the automatic approval threshold. The results show that women applicants below the threshold are less likely to take out loans and receive smaller loan amounts than men. However, this gender bias disappears for applicants above the threshold, suggesting that automated screening methods can reduce loan officer discretion and promote gender equity in lending. This project is part of the research program of the AI/DD Research Initiative at the Development Research Group
- Department/Division: DECRG
- Project type: Development Research Reports
- Project status: Ongoing
- Project start year: 2023
- Related SDGs: SDG 5 (Gender Equality) and SDG 10 (Reduced Inequality)
- Partners (internal and external to WBG): IDB Invest

- Project lead contacts: Claudia Ruiz Ortega - cruizortega@worldbank.org

Project 131: Algorithms and Bureaucrats: Evidence from Tax Audit Selection in Senegal

- Project/initiative description: Can algorithms enhance the work of bureaucrats in developing countries? Having built a risk-scoring algorithm to detect tax evasion of corporations in Senegal, we conduct an at-scale experiment whereby half of Senegal's annual audit program is selected by tax inspectors, as usual, and half by the risk-scoring algorithm. We evaluate the performance of audit cases under each selection method.
- Department/Division: DECRG
- Project type: Development Research Reports
- Project status: Ongoing
- Project start year: 2018
- Project end year: 2025
- Related SDGs: SDG 10 (Reduced Inequality)
- Any publicly available URL links/multimedia: https://www.dropbox.com/scl/fi/5t18w83m2ybwprkq2fsju/Senegal_Audits_RiskScore_Discretion.pdf?rlkey=o1yvpd1setp1788i79ognutpk&dl=0
- Project lead contacts: Samuel Paul Fraiberger - Robert Marty - rmarty@worldbank.org

Project 132: Crowdsourcing Safety: The Value of Passenger Feedback for Measuring Driving Safety

- Project/initiative description: Crowdsourced data has shown promise to supplement traditional data sources for road safety, but the use of crowdsourced data in the public transport industry has been limited. Better understanding public transit driving behavior is particularly important in lower-income settings, where much of the population uses public buses yet buses comprise high crash rates. We examine the value added of crowdsourced data against telematics data using a case study of Kenya's public transit industry. Across a sample of minibuses, we enable passengers to provide feedback on buses by rating safety, speed, and by providing open ended comments; we also install telematics devices to capture objective measures of driving behavior. Overall, we find that crowdsourced passenger feedback provides accurate and actionable insight that both aligns with telematics data and goes beyond what is captured in telematics data. In particular, we leverage artificial intelligence to process open-ended comments; open-ended comments provide rich information about driving behavior, but unstructured text can be difficult to analyze. In particular, we demonstrate a straightforward approach of leveraging AI/LLMs to identify reports of safe and unsafe driving from comments; AI achieved higher accuracy compared to more traditional natural language processing approaches.
- Department/Division: DECDI
- Project type: Development Research Reports
- Project status: Completed
- Project start year: 2023
- Project end year: 2024
- Related SDGs: SDG 3 (Good Health and Well-being)
- Partners (internal and external to WBG): National Transport and Safety Authority (Kenya)
- Any publicly available URL links/multimedia: <https://thedocs.worldbank.org/en/doc/8d14ba595052b0a20df8449b5f5855d3-0090012024/original/Kenya-PSV-Report.pdf>
- Project lead contacts: Robert Marty - rmarty@worldbank.org

2. Related Sustainable Development Goals

SDGs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

3. Related Links

<https://www.worldbank.org/en/home>

World Food Programme



1. Description of Activities on AI

PROJECT 1: WFP's AI Strategy: A Roadmap for Responsible AI in Humanitarian Action

- The World Food Programme's (WFP) AI Strategy 2025-2027 sets a bold path for leveraging artificial intelligence to strengthen humanitarian response. AI is already enabling WFP to predict food shortages, accelerate emergency response, optimize supply chains, and allocate resources efficiently. The strategy – a first for a UN programme – provides a structured framework to scale these benefits further. It's built on five key pillars: delivering impactful AI solutions, developing a robust AI infrastructure, ensuring strong governance and ethics, fostering an AI-driven culture, and forming strategic partnerships. These pillars ensure that AI is embedded responsibly across WFP's operations, aligned with global UN AI governance principles, and designed to maximize impact while safeguarding humanitarian values. By embracing AI at scale, WFP aims to build a future where technology plays a central role in the fight against hunger.
- Project Domain: Food security
- Project Start Year: 2025
- Related Sustainable Development Goals: SDG2, SDG 17
- Partnerships: Private sector, academic and research institutions
- Relevant Links and Multimedia <https://www.wfp.org/publications/wfp-global-artificial-intelligence-strategy-2025-2027>
- Contact information: Magan Naidoo, Chief Data Officer, magan.naidoo@wfp.org

PROJECT 2: AI for Real-Time Food Security Monitoring

- Accurate, timely insights are critical for anticipating and responding to food insecurity. HungerMap LIVE is WFP's global food security monitoring system that consolidates diverse datasets – from food security, nutrition, conflict, weather, and macroeconomic indicators – into a unified, interactive platform. By integrating real-time information and leveraging advanced data visualization, HungerMap LIVE offers continuously updated snapshots of food security conditions at global, national, and sub-national levels. This empowers faster, evidence-based decision-making, improves operational agility, and enhances early warning by identifying populations at risk before crises escalate. WFP is also expanding the predictive capabilities of HungerMap LIVE through artificial intelligence and machine learning. Predictive models forecast future food security trends based on dynamic factors such as weather anomalies, conflict data, and economic shifts, helping stakeholders to deploy resources earlier and more effectively to prevent food crises.
- Contact information: Jean-Martin Bauer, Director, Food Security and Nutrition Analysis Service, jean-martin.bauer@wfp.org

PROJECT 3: Modelling Inadequate Micronutrient Intake (MIMI): Unlocking Hidden Hunger Data with AI

- MIMI enhances WFP's ability to fill critical micronutrient data gaps in low- and middle-income countries by applying novel analytical methods to existing datasets. Through statistical analysis, machine learning and scenario modelling, MIMI estimates, predicts, and maps the risk of inadequate micronutrient intake across populations, stratified by geography and socioeconomic status. This approach supports country-led policy and program decisions by generating actionable evidence where traditional data collection and availability is limited. Embedded within a needs-driven engagement process with national stakeholders, MIMI provides visualizations and scenario analyses – such as the potential impact of food fortification or social protection interventions – to strengthen nutrition-focused advocacy and policymaking. Outputs are integrated into platforms like HungerMap LIVE, adding a critical nutrition lens to real-time food security monitoring.
- Contact information: Jean-Martin Bauer, Director, Food Security and Nutrition Analysis Service, jean-martin.bauer@wfp.org

PROJECT 4: AI for Fair and Efficient Aid Distribution

- Efficient aid distribution depends on accurate identity records. WFP's Enterprise Deduplication Solution tackles duplicate entries in WFP's beneficiary databases using advanced AI matching algorithms. These errors can lead to unintended over-assistance, diverting resources from those in greater need. With an accuracy rate exceeding 99.99 percent, the system has already been piloted in three country offices, resulting in close to \$400,000 in cost efficiencies. Independent assessments confirm compliance with global data privacy and security standards. Future improvements will introduce a user-friendly interface and fingerprint integration to further refining identity verification and ensuring every dollar in assistance reaches the right recipients.
- Project Domain: Food security
- Project Start Year: 2025
- Related Sustainable Development Goals: SDG2
- Contact information: Magan Naidoo, Chief Data Officer, magan.naidoo@wfp.org

PROJECT 5: AI and Drones for Rapid Disaster Response

- When disasters strike, speed is critical. WFP's Drone and AI-powered Emergency Preparedness (DEEP) solution enables rapid post-disaster assessments by automating the analysis of drone imagery. Using machine learning algorithms, DEEP quickly identifies and maps damaged infrastructure, allowing emergency teams to prioritize response efforts with greater accuracy. The technology has already been deployed in disaster-prone regions such as Mozambique, the Philippines, and the Caribbean, where it has significantly reduced the time required for damage assessments - from weeks to just hours. This AI-driven approach enhances coordination, strengthens disaster preparedness, and accelerates recovery efforts for affected communities.
- Project Domain: Emergency Response
- Project Start Year: 2019
- Related Sustainable Development Goals: SDG2
- AI Approach: Written in Python, DEEP leverages GIS libraries and a combination of machine learning models, including both a segmentation model and a classification model.
- Partnerships: Government of the Dominican Republic
- Relevant Links and Multimedia: https://www.linkedin.com/posts/wfp-digital_ai-machinelearning-artificialintelligence-activity-7220361035914854401-hlDj?utm_source

[=share&utm_medium=member_desktop&rcm=ACoAAzoNYoBv1h-7L3rzzdneJAZLD2C9zGY_LE](#)

- Contact information: Patrick McCay, patrick.mccay@wfp.org

PROJECT 6: SKAI: AI-Powered Satellite Imagery for Disaster Response

- WFP, in collaboration with Google Research, has developed SKAI, an AI-powered satellite imagery analysis tool that significantly accelerates disaster damage assessments. Using advanced machine learning, SKAI automates the identification of damaged buildings and infrastructure, providing critical insights in under 48 hours, 13 times faster and 77 percent cheaper than manual methods. In crises such as the Türkiye-Syria earthquakes and Pakistan floods, SKAI supported rapid assessments, enabling faster, more efficient humanitarian responses. By reducing reliance on manual analysis, the tool ensures that WFP and its partners can quickly determine the extent of damage, prioritize assistance, and allocate resources effectively.
- Project Domain: Emergency Response
- Project Start Year: 2018
- Related Sustainable Development Goals: SDG2
- Partnerships: Google Research
- AI Approach: Computer vision, Vision-Transformer model, Per-building damage level classification pipeline, change detection model
- Datasets: N/A
- Relevant Links and Multimedia: <https://github.com/google-research/skai>, <https://innovation.wfp.org/project/SKAI>
- Contact information: Amine Baha, AI Portfolio Lead, amine.baha@wfp.org

PROJECT 7: AI Partnership for Humanitarian Actions

- The AI partnership for Humanitarian Actions is a strategic collaboration between the Government of Luxembourg, CERN, the Luxembourg Institute of Science and Technology (LIST) and WFP. Together, we are harnessing cutting-edge artificial intelligence and Earth Observation technologies to strengthen disaster response and advance food security. Interdisciplinary teams are developing AI-driven solutions across three pillars, focusing on humanitarian use cases such as rapid building assessment, crop production early estimation, improved weather forecasting and anomaly detection for cash-based transfers and global fleet management. Developed in close collaboration with WFP stakeholders, these tools are integrated into WFP operations to enhance data-driven decision-making, improve transparency and ensure that aid reaches those in need more efficiently.
- Project Domain: Emergency Response, Assistance Delivery
- Project Start Year: 2024
- Related Sustainable Development Goals: SDG2
- Partnerships: CERN, LIST
- AI Approach: SAR and VHR imagery with computer vision segmentation and classification, Autoencoder for anomaly detection
- Datasets: internal and public datasets
- Relevant Links and Multimedia: <https://wfpinnovation.medium.com/wfp-launches-strategic-ai-partnership-with-luxembourg-cern-and-list-to-tackle-global-hunger-6614a6e7c191>
- Contact information: Amine Baha, AI Portfolio Lead, amine.baha@wfp.org

PROJECT 8: AI for Country Strategic Planning (CSP)

- AI for Country Strategic Planning (CSP) is an AI-powered system that analyzes complex documents like country strategic plans, evaluations, WFP strategies and assessments to support strategic decision-making in plan formulation. It identifies relevant outcomes and activities, answers queries across country strategic plans and annual country reports based on prompts and past documents. The system works with country offices to enhance data-driven planning, ultimately reaching millions of lives.
- Project Domain: Programme Planning
- Project Start Year: 2024
- Related Sustainable Development Goals: SDG2
- AI Approach: Generative AI
- Datasets: internal documents
- Relevant Links and Multimedia:
- Contact information: Amine Baha, AI Portfolio Lead, amine.baha@wfp.org

PROJECT 9: AI to Optimize Supply Chains

- SCOUT is a digital solution that automatically generates optimized global/regional-scale plans and strategic analyses for WFP's corporate inventory, supporting key decisions on what to buy, where from, when, and how to store and deliver it to operations. More information available here. In 2024, SCOUT enabled seizing seasonal purchase opportunities for sorghum in Western Africa through longer-term sourcing & delivery planning, allowing WFP to secure USD 2 million in cost efficiencies and reducing off-season purchases by 37 percent compared to previous 3-year trends. The Supply Chain division is currently working on a project to use machine-learning technology for demand forecasting. This will allow further improving the accuracy of the forecasts that SCOUT will use to produce optimized supply plans, reducing the risk of over/understocking.
- Contact information: Priya Singh, Chief, Supply Chain Research and Development, priya.singh@wfp.org

PROJECT 10: WFP's AI Virtual Chatbot Assistant for UN Mobility Services

To enhance the efficiency and quality of support services for UN field operations, the World Food Programme (WFP) has developed SPOC (Single Point of Contact), a smart, AI-powered virtual assistant designed to streamline the user experience within UN Mobility, the passenger transportation service of the UN Booking Hub. SPOC offers instant, personalized support to WFP staff by simplifying booking processes, improving access to real-time and location-specific information, and reducing the burden on administrative teams.

Launched on UN Booking Hub for WFP staff, and soon to be available to a broader UN community, SPOC provides services across web and mobile platforms. It uses natural language processing to understand user inquiries, LLM to leverage on knowledge basis to support the full booking workflow (creation, modification, cancellation), and delivers general and localized assistance to passengers, fleet managers and drivers from 950+ offices in over 100 countries. Future updates will expand SPOC's capabilities to general travel queries and multilingual support, reinforcing WFP's commitment to digital transformation and service excellence.

- **Project Domain:** Enabling Services Digitalization
- **Project Start Year:** 2024
- **Related Sustainable Development Goals:** SDG 9, SDG 17

- **AI Approach:** Natural Language Processing (NLP), Retrieval Augmented Generation (RAG), Large Language Models (LLM)
- **Datasets:** Internal UN Mobility data and knowledgebase, location-based service information
- **Partnerships:** Internal WFP units, UN Booking Hub team
- **Relevant Links and Multimedia:** www.unbooking.org/en/un-mobility/
- **Contact Information:** Luca Salaroli, luca.salaroli@wfp.org

2. Related Sustainable Development Goals

SDG 1, 2, 3, 4, 13, 17

3. Relevant Link

<https://www.wfp.org/>

Contact Information

Amine Baha (amine.baha@wfp.org); Kyriacos Koupparis (kyriacos.koupparis@wfp.org); Bernhard Kowatsch (bernhard.kowatsch@wfp.org); Jean-Martin Bauer (jean-martin.bauer@wfp.org); Hila Cohen (hila.cohen@wfp.org)

World Health Organization



1. Description of Activities on AI

In recognition of the growing importance of digital health technologies—including AI—the WHO Member States unanimously adopted the resolution on Digital Health during the 71st World Health Assembly on 26 May 2018 in Geneva, Switzerland (WHO, 2018). Following this MS agreed on the Global strategy on digital health 2020–2025 (www.who.int/dhstrategy) which highlights the importance of artificial intelligence. It is deeply embedded in the 172 implementation actions endorsed by Member States, with specific focus under digital health governance and human-centred health system. During the opening speech of the 144th session of the WHO Executive Board on 24 January 2020 in Geneva, Switzerland, the importance of digital health (and, particularly, AI for health) was reinforced: “the future of health will be influenced by digital health significantly [and WHO must] embrace it, but at the same time, WHO should be ahead of the curve in digital health, in order to contribute to global health [...] working with the International Telecommunications Union to find new ways of using artificial intelligence to get care to remote communities” (WHO, 2020)

1.1 Background and inception

In response to the accelerating advancements in artificial intelligence (AI) and its potential impact on healthcare, the World Health Organization (WHO) took an early step, together with the International Telecommunication Unit (ITU), by establishing the Focus Group on AI for Health (FG-AI4H) in 2018. This strategic move represented a steppingstone in the intersection of technology and global health policy to advance in (1) the efforts of benchmarking applications of AI in health, and (2) to advance the development of guidance documents on ethical, regulatory, and clinical considerations of development and deployment of AI in health.

The experiences, insights, and collaborative efforts within the FG-AI4H across its 10 pillars and 25 topic groups set up a positive example that transcended the boundaries of Member States and united key stakeholders on a shared vision. The FG-AI4H was to serve as pioneering dedicated to the exploration of AI’s untapped potential within the healthcare landscape. Hence it was recognized the transformative force AI could exert on healthcare delivery, diagnosis, and overall efficiency. The FG-AI4H also acknowledged the potential risks associated with the use of AI in health, including issues of equity, privacy, and the digital divide. As such, the group set out to not only explore the technical capabilities of AI but also to champion ethical advancements. Two publications are paramount:

- [Ethics and governance of AI for health](#). WHO’s commitment to ethical and responsible AI in health is manifested in this guidance document. This comprehensive resource provides consensus principles tailored for AI developers, Ministries of Health, and clinicians. Through interactive workshops and training courses, WHO has actively promoted

the implementation of these guidelines, emphasizing the pivotal role of ethics in the successful deployment of AI in healthcare.

- [Generating evidence for AI-based medical devices](#). The framework is a pioneering initiative by WHO intersecting a whole AI lifecycle approach in medical devices. Tailored for developers, researchers, and policymakers, this framework offers comprehensive guidance on evidence generation specific to health areas like cervical cancer screening. By setting clear standards, this framework lays the groundwork for the responsible introduction of new and emerging AI technologies in the healthcare landscape.

The establishment of the FG-AI4H underscored WHO's commitment to staying at the forefront of technological advancements, ensuring that Member States were equipped to harness the potential benefits of AI while navigating its complexities. This forward-looking move signaled a broader shift in global health policy, recognizing the need to adapt rapidly in the landscape of healthcare technology. The establishment of the FG-AI4H laid the essential groundwork for the subsequent formation of the Global Initiative on AI for Health (GI-AI4H) in 2023.

1.2 The Global Initiative on AI for Health (GI-AI4H)

The launch of the GI-AI4H is a landmark moment of harnessing the potential of AI in health. This transition was and is possible thanks to the commitment of three key United Nations agencies, the World Health Organization (WHO), the International Telecommunication Union (ITU), and the World Intellectual Property Organization (WIPO) to enable, facilitate and implement the adoption of AI-based technologies for health.

The setting up of the GI-AI4H moves beyond the traditional boundaries of individual organizations. It is a testament to the recognition that addressing the complex challenges and opportunities presented by AI in health requires a multidimensional and collaborative approach. By pooling their joint expertise and resources the initiative aims at becoming a powerful force aligned to two core objectives:

- Firstly, the GI-AI4H is dedicated to ensuring innovation and global accessibility to AI solutions across healthcare services. In leveraging AI, WHO envisions a future where innovative technologies bridge gaps in healthcare delivery, making essential services accessible to everyone, especially in low- and middle-income countries (LMIC).
- Secondly, the promotion of ethical and equitable advancements in health AI technology. Recognizing the potential risks and disparities associated with AI from its inception in policymaking to the implementation on the ground, the initiative places a strong emphasis on ensuring that technological progress is accompanied by principles of fairness, inclusivity, and ethical considerations. This commitment underscores the intention to create a healthcare landscape where the benefits of AI are equitably distributed, leaving no one behind.

1.3 Governance structure of the GI-AI4H

The GI-AI4H aims to create a harmonized ecosystem and avoid the vertical fanged approach. The governance structure includes a Steering Committee (with equal representation of the founding UN partners and will be the final decision-making authority); Secretariat (as the functional and operational team cross-cutting across the founding organizations with devoted resources and structure); Partners (who are donors and champion countries who will bring resources to support the three key functions); and Informal Expert Groups (entail screened individuals with expertise in the relevant topic areas).

GI-AI4H governance structure



Roles and Responsibilities

To support the management of the Steering Committee and Secretariat, under the GI-AI4H governance structure, the founding partners' roles and responsibilities are:

- WHO: Leads in normative technical guidance, policies, and standards; facilitates resource and knowledge sharing; and supports through collaborative research.
- ITU: Facilitates resource and knowledge sharing; strengthens knowledge sharing on AI, health and ICT policy; supports collaborative research.
- WIPO: Focuses on policies around intellectual property (IP) and AI for health; facilitates knowledge sharing advocates for ethical AI implementation.

1.4 Three pillars of work at a glance

The GI-AI4H is structured around the three key functions, namely, Enable, Facilitate, and Implement:

- 1) The Enable function focuses on developing policy, guidance, legislations, norms and standards, and the benchmarking framework along with the evidence to support Member States in utilizing AI for health care systems and services.
 - Guidance on the use of AI in crosscutting topics and governance areas.
 - Policy + briefs on application of AI for health in thematic areas.
 - Toolkits and handbooks for implementation and technical support.
- 2) The Facilitate function promotes knowledge sharing between countries and partners, fostering a community of practice.
 - Resource mobilization and funding partnership development.
 - Knowledge mobilization and communities of practice (global registry of networks for knowledge sharing of academics, AI in health experts, policymakers, designers and more).

3) The Implement function supports countries in taking evidence-based AI for health programs to strengthen health systems and services. This function supports and emphasizes the creation of sustainable implementation models.

- Technical assistance and implementation of toolkits, policies guidance, handbooks and use cases on AI for health.
- Workshop + curriculums on AI for health.

Three key functions of the GI-AI4H

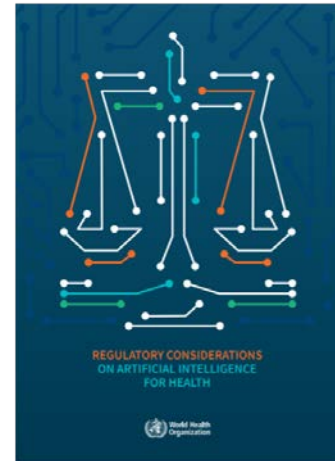


1.5 Unwrapping each pillar of work

The Enablement pillar serves as cornerstone of the GI-AI4H

Development and release of several technical guidance and policy briefs addressing pressing global health needs, research gaps and governance challenges in the use of AI for health. These normative technical products can serve as an overarching guide for Member States and partners to design, develop, regulate, and deploy AI solutions that bring health benefits to everyone, everywhere. This involves enabling the formulation of policies that navigate the complex landscape of AI, ensuring alignment with global health standards and ethical considerations. Two publications are paramount of the enabling function:

- [Regulatory considerations on AI for health](#): launched in October 2023 and articulating non-binding recommendations for the health ecosystem, including Ministries of Health (MoH), developers, manufacturers, and the whole tech industry. The document clusters eighteen recommendations for regulatory considerations in six topic areas: 1) documentation and transparency; 2) risk management and AI systems development lifecycle approaches; 3) analytical and clinical validation; 4) data quality; 5) engagement and collaboration; 6) privacy and data protection. Addressing crucial aspects of AI implementation, the document on “Regulatory Considerations in AI for health” covers key topics including documentation, transparency, total product lifecycle approach, intended use, analytical & clinical validation, privacy, and data protection. Serving as a comprehensive resource, this document is intended for all stakeholders involved in AI solutions in the health sector.
- [Ethics and governance of AI for health - Large Multi-Modal Models \(LMMs\)](#): The guidance outlines recommendations for assisting Member States and tech developers in sharing the benefits and challenges associated with using LMMs for health. The publication provides a good overview of tailored risks and challenges in various uses of LMMs in healthcare: 5 broad applications - 1) diagnosis and clinical care, 2) patient-guided use, 3) clerical and administrative tasks, 4) medical and nursing education, 5) scientific research and drug development.; Tailored risks to health systems: these are risks associated with the use of LMMs in healthcare; LMM life cycle approach: finely details the governance behind the development, provision and deployment of LMMs as a basis for enshrining ethical principles and human rights obligations through laws, policies and regulation. Finally, it provides a visually-sound "checklist" as a summary of the three points above in which it frames the actions of both developers and governments across each development, provision or deployment phases considering their own set of risks to be assessed during and thereafter.



The **Facilitation pillar** emerges as the dynamic and collaborative force within the GI-AI4H.

Convene experts to establish informal expert groups and lead technical global consultations to assess and analyze current uses of AI for health and advise or recommend actions or steps to ensure the use of AI for health benefits healthy living and well-being in all countries and at all ages. Through establishing a global network of experts, the GI-AI4H will promote the development of normative guidance around governance and policy, foster the development of an implementation toolkit of AI for health, and support key. By cultivating a dynamic community, this pillar contributes to the collective effort of advancing health AI on a global scale. This

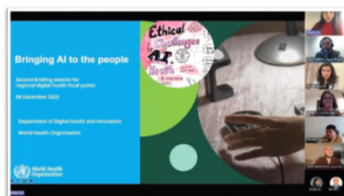
pillar places Member States and all stakeholders of the health community to facilitate and accelerate the seamless implementation of the normative technical products. This involves creating platforms for the dissemination of insights, best practices, and lessons learned in the field of health AI.

Facilitate shaping key areas of work

Technical consultations for specific topic areas



Technical Consultation: SRHR



2nd Meeting: December 07, 2023



1st Meeting: September 19, 2023



Regional AI-Activities Briefing Session

1

Regional briefing sessions on ongoing AI-related activities

2

Technical Consultations for Sexual and Reproductive Health and Research

3

Series of Technical consultations on Tuberculosis



Facilitate shaping key areas of work



AI & digital frontiers @ Traditional Medicine Global Summit, 2023

Futurism



The futuristic dome titled as the "Galaxy of the Unknown" mimicking an artificial brain.

Engagement



Global partners commit to advance evidence-based TCM and to incorporate AI as key enabler

Media



- UN Tech Envoy's statement on AI in TCM
- DHI Director & AI Lead Media approach in India

The **Implementation Pillar** embodies the practical application of AI advancements and recommendations across Member States.

Support guidance implementation by piloting the implementation concept of "AI for Public Health" in countries and relevant stakeholders, to accelerate countries' good governance of digital health, and the appropriate use of AI and other frontier technologies for health.

Implement sustainable models of AI programs at the country level



WHO Online introductory course on Ethics and governance of AI for health



Regional workshops on the ethics and governance of AI for health delivered in PAHO, EMRO, EURO and AFRO between Nov 22-July 23, with nearly 100 participants from 30+ countries.

Upcoming workshop in SEARO and WPRO.



Country governance and program implementation

Implement

1.6 First meeting of the GI-AI4H in Riyadh

The first workshop and (inaugural) meeting of the ITU/WHO/WIPO Global Initiative on AI for Health (GI-AI4H) were held from 30 October 2023 until 2 November 2023 in Riyadh, Saudi Arabia, at the premises of the King Abdulaziz City for Science and Technology (in the building "The Garage" on 30 Oct., and in "The Innovation Tower" on the remaining days).

The meeting welcomed in total nearly 400 people coming from 42 countries across 6 regions, with an adequately large number of attendees (42%) joining virtually. The participants and speakers consist of a variety of the portfolios e.g., researchers, policy makers and health practitioners. In addition, more than 100 participants expressed interests in the Ideathon, an independent session running in parallel to the 4-day meeting agenda.

The four-day meeting featured more than dozens of insightful presentations, four multiple-disciplinary panels, two breakout working sessions as well as a persona role play case study loaded with valuable information and innovative ideas for GI-AI4H's future. The meeting was key in identifying collaborative opportunities and strategies for advancing AI in health within the GI-AI4H framework. In conclusion, the Global Initiative on AI for Health stands as a pioneering force in the responsible and collaborative use of AI.

2. Related Sustainable Development Goals

All SDGs.

3. Relevant Link

WHO documents

- Guidance: Ethics and governance of artificial intelligence for health
 - Full document <https://apps.who.int/iris/handle/10665/341996>
 - Executive summary <https://apps.who.int/iris/handle/10665/350567>

- Guidance: Generating evidence for artificial intelligence-based medical devices: a framework for training, validation and evaluation. <https://apps.who.int/iris/handle/10665/349093>
- Guidance: Regulatory considerations on artificial intelligence for health. <https://iris.who.int/handle/10665/373421>
- Policy brief: Ageism in artificial intelligence for health. <https://apps.who.int/iris/handle/10665/351503>
- Press release: WHO calls for safe and ethical AI for health. <https://www.who.int/news/item/16-05-2023-who-calls-for-safe-and-ethical-ai-for-health>
- Ethics and governance of AI in health - guidance for large multi-modal models: <https://www.who.int/publications/i/item/9789240084759>
- Press release: WHO releases AI ethics and governance guidance for large multi-modal models: <https://www.who.int/news/item/18-01-2024-who-releases-ai-ethics-and-governance-guidance-for-large-multi-modal-models>
- Press release: WHO outlines considerations for regulation of artificial intelligence for health. <https://www.who.int/news/item/19-10-2023-who-outlines-considerations-for-regulation-of-artificial-intelligence-for-health>

Global strategy on digital health

- English: <https://apps.who.int/iris/bitstream/handle/10665/344249/9789240020924-eng.pdf>
- WHO online course
- Introduction: Ethics and governance of artificial intelligence for health (based on the ethics guidance). <https://openwho.org/courses/ethics-ai>

For more information, please, contact us at: ai@who.int

Alain Labrique (Labriquea@who.int), Sameer Pujari (pujaris@who.int), Ursula Yu Zhao (Zhaoy@who.int), and Shada Alsalamah (Alsalamahs@who.int)

World Intellectual Property Organization



1. Description of Activities on AI

Project 1: WIPO Translate

- Project Description: WIPO Translate is a market-leading translation software for specialized text. Originally created to translate patent documents, WIPO Translate can also be adapted and customized to other technical Project Domains. Once trained in a specific subject area, WIPO Translate has been shown to out-perform other paid and free translation tools.
- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Translation database
- Technology/Platform: Supervised learning and Natural Language Processing (NLP)
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://www.wipo.int/wipo-translate/en/>
- Lessons Learned: Project Domain adaptation (we need different models for different Project Domain). E.g. patent translation is totally different than conference translation.
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 2: WIPO Speech-to-Text

- Project Description: WIPO speech-to-text (S2T) is a homemade transcription tool for conferences. It generates an automatic transcript, which becomes available a few minutes after the meeting. This transcript can be further cascaded through WIPO Translate in order to generate UN-6 language reports (always synchronized with the original video). It has been successfully used in other organizations.
- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Conferences
- Technology/Platform: Supervised learning for automatic speech recognition
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://www.wipo.int/en/web/ai-tools-services/speech-to-text>
- Lessons Learned: Adapt to various speakers: in international conferences native and non-native accents is a challenge.
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 3: WIPO Brand Image Search

- Project Description: Perform a trademark search by text or image in brand data from multiple national and international sources, including trademarks, appellations of origin and official emblems.
- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Global Brand Database
- Technology/Platform: Computer Vision
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://branddb.wipo.int/en/similarlogo?strategy=concept>
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 4: International Patent Classification (IPC)

- Project Description: The International Patent Classification (IPC) provides for a hierarchical system of language independent symbols for the classification of patents and utility models according to the different areas of technology to which they pertain.
- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Patents
- Technology/Platform: Classification and machine learning.
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://www.wipo.int/classifications/ipc/en/>
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 5: WIPO Goods & Services Terms Explorer

- Project Description: A tool designed to provide assistance to trademark applicants when selecting appropriate Goods and Services terms and their associated Nice classification in different languages during the filing process. This tool also provides support to trademark examiners in IP offices in their validation of trademark applications.
- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Conferences
- Technology/Platform: Supervised learning for automatic speech recognition
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://goods-and-services-assistant.branddb.wipo.int/>
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 6: Vienna Classification Assistant

- Project Description: The Vienna Classification Assistant is an AI-driven tool developed by WIPO to support the use of the Vienna Classification system. This system helps classify

figurative elements of trademarks by automatically suggesting appropriate Vienna Classification codes. The Vienna Classification Assistant enhances the accuracy and efficiency of trademark classification processes.

- Project Type/Output: Software tool
- Project Status: Full-fledged development
- Project Domain: Intellectual Property
- Data Source: Conferences
- Technology/Platform: Supervised learning for automatic speech recognition
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: <https://vienna-assistant.branddb.wipo.int/>
- Contact Information: Sandrine Ammann (sandrine.ammann@wipo.int)

Project 7: WIPO Conversation on IP and Frontier Technologies

- Project Description: The objective of the WIPO Conversation is to provide Member States with an opportunity to exchange views on various topics regarding frontier technologies, including AI, and to formulate questions with respect to the possible impact of frontier technologies on the IP system.
- Project Type/Output: Conference
- Project Status: Ongoing
- Project Start Year: 2019
- Project Domain: Intellectual Property
- Project Updates: In 2021, WIPO expanded the scope of the Conversation to cover frontier technologies as a whole. WIPO will also ensure that these sessions have a practical, as well as conceptual emphasis – reflecting the fact that frontier technologies are piecing together a new kind of global economy. The 2024 sessions of the WIPO Conversation and the IP questions related to using training generative AI and AI-generated outputs.
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure
- Relevant Links and Multimedia: https://www.wipo.int/about-ip/en/frontier_technologies/frontier_conversation.html
- Contact Information: IP and Frontier Technologies Division (frontier.tech@wipo.int)

Project 8: AI and IP Strategy Clearing House

- Project Description: AI is becoming a strategic capability for many governments across the globe. Strategies for the development of AI capacity and AI regulatory measures are being adopted with increasing frequency. The Clearing House collates and publishes the main government instruments of relevance to AI and IP.
- Project Type/Output: Clearing House
- Project Status: Ongoing
- Project Start Year: 2020
- Project Domain: Intellectual Property
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Relevant Links and Multimedia: https://www.wipo.int/about-ip/en/artificial_intelligence/policy.html#clearing_house
- Contact Information: IP and Frontier Technologies Division (frontier.tech@wipo.int)

Project 9: ITU, WHO, WIPO Global Initiative on AI for Health

- Project Type/Output: Interagency cooperation to develop tools and resources to support the use of AI for health
- Project Status: Ongoing
- Project Start Year: 2023
- Project Domain: Intellectual Property
- Project updates: The GI-AI4H continued to transition the ITU WHO Focus Group on AI to Health to incorporate IP objectives. ITU, WHO and WIPO signed the project collaboration agreement and at a Steering Committee meeting decided next steps for the project.
- Related Sustainable Development Goals (SDGs): SDG 3- Good Health and Well-being; SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Relevant links and multimedia: <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Pages/default.aspx>
- Contact Information: Nancy Pignataro (nancy.pignataro@wipo.int)

Project 10: Generative AI: Navigating intellectual property

- Project Description: Generative AI: Navigating intellectual property outlines guiding principles and provides a checklist to assist organizations to understand the IP risks, ask the right questions and consider potential safeguards when adopting generative AI tools in their business.
- Project Type/Output: Publication
- Project Status: finalized
- Project Start Year: 2024
- Project Domain: Intellectual Property
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Relevant Links and Multimedia: <https://www.wipo.int/publications/en/details.jsp?id=4713>
- Contact Information: IP and Frontier Technologies Division (frontier.tech@wipo.int)

Project 11: Getting the innovation ecosystem ready for AI: An IP policy toolkit

- Project Description: As AI technologies evolve at an exponential pace there are many questions and challenges for IP and the IP system. The purpose of this IP policy toolkit is to provide policymakers with a framework to understand the state of play of AI innovation right now and to think about the future as AI becomes increasingly autonomous.
- Project Type/Output: Publication
- Project Status: finalized
- Project Start Year: 2023
- Project Domain: Intellectual Property
- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 17 – Partnerships for the Goals
- Relevant Links and Multimedia: <https://www.wipo.int/publications/en/details.jsp?id=4711>
- Contact Information: IP and Frontier Technologies Division (frontier.tech@wipo.int)

Project 12: Empowering AI Innovation

- Project Description: These projects aim to enhance understanding of the IP and AI in Member States and to support both policymakers and innovators on the ground by providing a mix of awareness raising, training and mentoring.

The projects include brainstorming sessions with Member States and IP Offices from the region to gain a better understanding of the local AI and IP related topics of high interests and priorities and 3 half day regional capacity building events. Following these regional events, AI innovators and creators are selected for an IP Management Clinic to help them enhance their IP skills to support their growth and development. These innovators are also mentored by IP experts. The final phase comprises a regional closing event to showcase the impact of the project and its results

These projects have included a regional project in the Latin America and the Caribbean region, a project for SMEs in the Arab region and a project for Agriculture 4.0 innovators in ASEAN countries.

- Project Type/Output: Seminars/workshops/training/mentoring
- Project Status: ongoing
- Project Start Year: 2023
- Project Domain: Intellectual Property
- Related Sustainable Development Goals (SDGs): SDG 9 - Industry, Innovation, and Infrastructure; SDG 17 - Partnerships for the Goals
- Relevant Links and Multimedia: n/a
- Contact Information: IP and Frontier Technologies Division (frontier.tech@wipo.int)

2. Related Sustainable Development Goals

SDG 3, 9, 17

3. Relevant Links

<https://www.wipo.int/portal/en/index.html>

Contact Information

IP and Frontier Technologies Division (frontier.tech@wipo.int) and Ryszard Frelek (Ryszard.frelek@wipo.int)

World Meteorological Organization



1. Description of Activities on AI

Project 1: WMO RA VI-led event on Artificial Intelligence to support EW4All

- **Project Description:** The WMO RA VI-led event on Artificial Intelligence to support EW4All on May 27, 2023, focused on integrating AI and machine learning in meteorology to improve early warnings and tackle climate change. It featured notable speakers from ECMWF, EUMETSAT, and tech giants, discussed WMO's AI initiatives, insights from the European Meteorological Infrastructure, and relevant case studies. The agenda included machine learning's application and impact on observation and weather forecasting, highlighting a collaborative approach in the meteorological community to leverage new technologies.
- **Department/Division:** WMO Regional Office for Europe
- **Project Type/Output:** meeting
- **Project Status:** Finished
- **Project Start Year:** 2023
- **Project End Year:** 2023
- **Project Domain:** Environment, Early warning
- **Project Updates:** The ITU/WMO/UNEP Focus Group on AI and Natural Disaster stresses the importance of adapting to evolving technologies to meet the shifting needs and priorities in the field of natural disaster management. The European Centre for Medium-Range Weather Forecasts (ECMWF) notes substantial involvement from commercial sectors in advancing machine learning. EUMETSAT is committed to delivering the highest quality of data and adopts a proactive stance in anticipating and understanding future requirements. The significant role of AI and machine learning is acknowledged, with their development shaping our strategic choices. Machine learning is crucial for enhancing nowcasting and short-term weather predictions, offering capabilities like automatic feature detection and a variety of applications including air quality assessments. Huawei and Google DeepMind presented their data-driven weather forecast models, showcasing the remarkable potential of AI in weather forecasting.
- **Related Sustainable Development Goals (SDGs):** SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 17 – Partnerships for the Goals
- **Partnership(s)/Collaborator(s):**
 - ITU/WMO/UNEP Focus Group on AI and Natural Disaster Management
 - ECMWF
 - EUMETSAT
 - Meteo-France
 - Huawei Inc
 - DeepMind, Google
 - Microsoft
 - UK Met Office

- Nvidia
- Relevant Links and Multimedia: <https://wmo.int/news/media-centre/big-tech-and-artificial-intelligence-can-support-early-warnings-all>
- Lessons Learned: Artificial Intelligence (AI) has the potential to significantly enhance weather observation, forecasting, and the dissemination of early warnings, thereby effectively supporting early warning services. The private sector plays a pivotal role in realizing the goal of achieving 'Early Warnings for All.' This can be achieved by harnessing the extensive reach of major technology companies and the capabilities of Artificial Intelligence..
- Contact Information: Natalia Berghi (nberghi@wmo.int), Kanghui Zhou (kzhou@wmo.int)

Project 2: The Mediterranean and Pan-European Forecast and Early Warning System against Natural Hazards (MedEWSa) project (Horizon Europe project funded by the European Commission [updated in May 2025])

- Project Description: MedEWSa is an Innovation action (IA) project led by the Justus Liebig University Giessen (JLU) and a consortium of 30 partners. Building on existing tools, MedEWSa will develop a fully integrated impact-based multi-hazard early warning system (EWS). It will achieve advances beyond the state-of-the-art in the areas of AI-based decision support solutions for improved impact prediction, methods for impact prediction and early warnings, modelling and prediction of multiple hazard dynamics and their interdependencies. MedEWSa will explore hybrid methods combining data-driven approaches and the laws of physics, using tools learned from observations and physics-based model results. Ultimately, it will deploy an analysis to provide integrated, accurate, and rapid early warnings for the pan-European-Mediterranean-African region. MedEWSa will directly contribute to the United Nations' Sustainable Development Goals and align with the UN's Early Warnings for All initiative. The project will also develop innovative financial solutions through risk transfer to capital markets. MedEWSa will also set out a roadmap for contributing to different standardisation activities to identify significant opportunities to push contributions into future standards, pre-normative activities, and open collaborative development environments. In that sense, MedEWSa will benefit from the participation of academia such as the Justus Liebig University of Giessen (JLU), WMO, SMEs, national meteorological and hydrological services, national ministries, first responders and HHI, who actively participate in international standardisation activities, such as the ITU/WMO/UNEP [Global Initiative on Resilience to Natural Hazards through AI Solutions](#), previously named Focus Group on AI for Natural Disaster Management.
- Department/Division: WMO Science and Innovation Department
- Project Type/Output: research project
- Project Status: ongoing
- Project Start Year: 2023
- Project End Year: 2026
- Project Domain: Weather, Environment, natural disaster
- Project Updates: The MedEWSa was launched in Athens, Greece in November 2023. The kick-off meeting was hosted by the Ministry of Digital Governance of Greece, the event not only served as a collaborative platform but also underscored the significant role played by the WMO Regional Office for Europe in steering the project's implementation. The meeting structure featured four specialized groups led by experts in disaster risk knowledge, hazard monitoring, warning dissemination, and response capabilities, collectively aiming to align MedEWSa's scientific and techno-economic developments with the overarching goals of the WMO's EW4All Initiative. This event facilitated comprehensive discussions, reinforcing the integration of MedEWSa's goals with the broader vision of the EW4All Initiative, while also exploring synergies with SEE-MHEWS. The MedEWSa project had its first General Assembly in Barcelona, in November 2024 and is currently undergoing the mid term (M18) reporting to the European Commission.

- Related Sustainable Development Goals (SDGs): SDG 9 – Industry, Innovation, and Infrastructure; SDG 11 – Sustainable Cities and Communities; SDG 13 – Climate Action; SDG 17 – Partnerships for the Goals
- Partnership(s)/Collaborator(s):
 - National Observatory of Athens
 - Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici
 - Sveriges Meteorologiska och Hydrologiska Institut
 - Slovak Hydrometeorological Institute
 - European Centre for Medium Range Weather Forecasts
 - Hellenic National Meteorological Service
 - Centro Internazionale Di Monitoraggio Ambientale – Fondazione
 - Institut National de Recherche pour l'Agriculture, l'alimentation et l'Environnement
 - International Red Cross/Red Crescent Centre on Climate Change and Disaster Preparedness
 - Justus-Liebig-Universitaet Giessen
 - Barcelona Supercomputing Center-Centro Nacional de Supercomputación
 - Fraunhofer Heinrich-Hertz-Institut – Fraunhofer HHI
 - GeoSphere Austria
 - Mitiga Solutions
 - Internet of Things applications and Multi-Layer development (ITML)
 - Kajo s. r. o.
 - Convergence
 - Greek Ministry of Digital Governance (associated)
 - WMO
 - Georgia National Environmental Agency
 - Region of Attica Civil Protection Department
 - European Central Bank (associated)
 - Centro Previsione e Segnalazione Maree del Comune di Venezia
 - Egyptian Meteorological Authority
 - Italian Meteo Agency
 - Department of Interior of Generalitat de Catalunya
 - Ethiopian Forestry Development
 - Pau Costa Foundation
 - BEYOND Operational Center
- Relevant Links and Multimedia:
 - <https://wmo.int/media/news/wmo-leads-new-research-project-early-warning-systems-mediterranean> (old) <https://wmo.int/activities/projects/project-portfolio/mediterranean-and-pan-european-forecast-and-early-warning-system-against-natural-hazards-medewsas> (updated)
- Lessons Learned: The MedEWSa was launched in November 2023. The MedEWSa project emphasizes the importance of research and multi-stakeholder collaboration in enhancing Mediterranean and European countries' operational EWS capabilities. It aims to enhance collaboration, research, innovation, and the dissemination of knowledge and technologies in support of EU policies addressing global challenges.
- Contact Information: Paolo Laj (plaj@wmo.int), Jürg Luterbacher(juerg.luterbacher@geogr.uni-giessen.de)

Project 3: Working Group on Digital Transformation for Hydrology and Water Resources

- **Project Description:** Water-related challenges such as floods and droughts continue to affect millions of people worldwide, disrupting livelihoods and undermining socio-economic stability across entire regions. In response, emerging technologies—including Artificial Intelligence (AI), Digital Twins, quantum computing, and drones offer transformative potential for hydrology and water resources management.

To harness this potential, the World Meteorological Organization (WMO), through its Standing Committee on Hydrological Services (SC-HYD), has established the Working Group on Digital Transformation for Hydrology and Water Resources (WG DT-HWR). Formed in collaboration with the International Telecommunication Union (ITU), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Development Programme (UNDP), the group is tasked with advancing the integration of innovative technologies across the full hydrological value chain, from data acquisition and analysis to forecasting, decision-making, and service delivery.

A key focus of the group is to develop actionable frameworks for collaboration among diverse stakeholders, including the private sector, research institutions, and civil society. One of its flagship outputs will be a set of global guidelines that detail practical approaches for multi-stakeholder engagement. These will be supported by case studies illustrating cutting-edge applications and partnerships, all aligned with the priorities of the WMO Plan of Action for Hydrology 2022-2030.

- **Department/Division:** Hydrological and Water Resources Services Section, Services Department, WMO
- **Project Type/Output:** Working Group producing various deliverables such as guidelines
- **Project Status:** Ongoing
- **Project Start Year:** 2024
- **Project End Year:** 2027
- **Project Domain:** Hydrology and Water Resources, Environment, Early Warning, Emerging Technologies, Policy and governance, Capacity Building
- **Project Updates:** The Working Group was officially launched on 14 June 2024 during the 1st UN Virtual Worlds Day held at the ITU Headquarters in Geneva, Switzerland. This was attended by H.E. Seong Deok Yun, Permanent Representative of the Republic of Korea to the United Nations Office and Other International Organizations in Geneva and H.E. Febrian A. Ruddyard, Ambassador and Permanent Representative of Indonesia to the UN, WTO and other International Organizations in Geneva. The launch underscored the importance of inter-agency collaboration within the UN system to advance digital transformation in hydrology and water resources.

An article on using immersive technologies was jointly published by the Working Group experts in the United in Science 2024 report which was launched by WMO in September to align with the Summit of the Future.

Working Group experts also participated in several panel sessions during ITU World Telecommunication Standardization Assembly 2024 (New Delhi, India) and the UNCCD COP-16 (Riyadh, Saudi Arabia)

The experts within the Working Group are currently gathering case studies that highlight the use of emerging technologies in hydrology. In parallel, they are working on drafting guidelines that will provide practical approaches for effective multi-stakeholder engagement in the digital transformation of water resources management.

An AI flood forecasting approach is being piloted with a private sector partner to understand how AI models can support flood forecasting efforts for WMO Member countries and territories and to compare AI-based model for flood forecasting with existing physically based hydrological models

- Related Sustainable Development Goals (SDGs): SDG 6 (Clean Water and Sanitation), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable cities and communities), SDG 13 (Climate Action) and SDG 17 (Partnerships for the goals)
- Partnership(s)/Collaborator(s):
 - WMO
 - ITU
 - UNCCD
 - UNDP
- Relevant Links and Multimedia:
 - [Working Group Webpage](#)
 - [Harnessing Emerging Technologies for Disaster Risk Reduction, MeteoWorld – December 2023](#)
 - [UN Executive Briefing on Unlocking the potential of virtual worlds and the metaverse for the Sustainable Development Goals](#)
 - [Bridging virtual and physical realms: leveraging immersive technologies for water and land management, United in Science 2024](#)
 - [International AI Standards Summit, Digital Wave Stage – Shaping AI Standards for Climate Response and Disaster Management, ITU WTSA 2024](#)
 - [Leveraging AI to advance the United Nations mission, AI4Good Impact India, ITU WTSA 2024](#)
 - [Reviving the Earth: Digital Transformation in combatting desertification and water challenges, Restoration Pavilion \(G20 Global land initiative\), UNCCD COP-16](#)
- Contact Information:
 - Stefan Uhlenbrook, Director, Hydrology, Water and Cryosphere (HWC) (suhlenbrook@wmo.int)
 - Hwirin Kim, Head, Hydrological and Water Resources Services (HWR) Section (hkim@wmo.int)
 - Nakul Prasad, Project Officer, HWR Section (nprasad@wmo.int)

2. Related Sustainable Development Goals

SDG 6, SDG 9, SDG 11, SDG 13, SDG 17

3. Related Links

<https://public.wmo.int/en>

<https://www.medewsa.eu/>

<https://cordis.europa.eu/project/id/101121192>

World Trade Organization



1. Description of Activities on AI

Project 1: Report "Trading with Intelligence: How AI Shapes and is Shaped by International Trade"

- This report examines the intersection of AI and international trade. It discusses how AI may shape the future of international trade by reducing trade costs, improving productivity and expanding economies' comparative advantages. The report reviews some key trade policy considerations, in particular the urgent need to address the growing AI divide between economies and between large and small firms, as well as data governance and intellectual property issues. It examines how to guarantee the trustworthiness of AI without hindering trade. The report also provides an overview of domestic, regional and international government initiatives to promote and regulate AI, and highlights the resulting risk of regulatory fragmentation. Finally, the report discusses the critical role of the WTO in facilitating AI-related trade, ensuring trustworthy AI and addressing emerging trade tensions, noting that the rapid evolution of AI is prompting questions about the implications of AI for international trade rules
- Department/Division: Economic Research and Statistics Division
- Project Type/Output: Publication
- Project Status: Published (2024)
- Project Domain: International Trade
- Data publicly available: Yes
- Related Sustainable Development Goals (SDGs): SDG 8 – decent work and economic growth, and SDG 17 – partnership for the goals – by providing policy-relevant insights to policymakers in the area of trade strategy.
- Relevant Links and Multimedia:
 - Project site: [WTO | How AI shapes and is shaped by international trade](#)
- Contact Information: Emmanuelle Ganne (Emmanuelle.Ganne@wto.org)

2. Related Sustainable Development Goals

SDGs 8 and 17

3. Relevant Links

[WTO | How AI shapes and is shaped by international trade](#)

Contact Information: Emmanuelle Ganne (Emmanuelle.Ganne@wto.org)

International Telecommunication Union
Place des Nations
CH-1211 Geneva 20
Switzerland

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