Digital Transformation through Development of Digital Skills

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Meet us
What we do

ITU Radiocommunication
Coordinating radio-frequency spectrum and assigning orbital slots for satellites

ITU Standardization
Establishing global standards

ITU Development
Bridging the digital divide

‘Committed to Connecting the World’

3 Sectors

193 MEMBER STATES
+800 MEMBERS FROM THE PRIVATE SECTOR, ACADEMIA AND INTERNATIONAL AND REGIONAL ORGANIZATIONS
Asia–Pacific: Opportunity in diversity

Small Islands Developing States (12)
- Kiribati
- Solomon Is.
- Tuvalu
- Vanuatu
- Fiji
- Maldives
- Marshall Islands
- Micronesia
- Nauru
- Tonga

Least Developed Countries (12)
- AFGHANISTAN
- Bangladesh
- BHUTAN
- Cambodia
- LAO, PDR
- NEPAL
- Myanmar
- Timor Leste

Low-Income States (10)
- D.P.R. Korea
- India
- Indonesia
- MONGOLIA
- Pakistan
- Philippines
- Sri Lanka
- Vietnam

Middle and High Income States (10)
- Australia
- Brunei Darussalam
- China/Hong Kong
- I.R. Iran
- Japan
- Malaysia
- New Zealand
- Rep. Of Korea
- Singapore
- Thailand

38 Member States
79 Sector Members,
76 Associates
48 Academia
Digital transformation is key to accelerate our progress towards SDGs.

17 Sustainable Development Goals
169 Targets
International cooperation and agreement on telecom/ICTs

Modern and secure telecommunication/ICT Infrastructure

Enabling environment

Inclusive digital society

GLOBAL PRIORITIES

ASP RI 1 Addressing special needs of LDCs, SIDS (incl. PIC), LLDCs

ASP RI 2 Digital economy and inclusive digital society

ASP RI 3 Digital infrastructure

ASP RI 4 Policy & Regulation

ASP RI 5 Security & Resilience

REGIONAL PRIORITIES

.. aligned to accelerate digital transformation and realize an inclusive digital society
Digital Transformation & Digital Economy
Digital infrastructure development

IOT, DLT, AI, 5G, BIG DATA

Broadband networks, Analytics, Platforms

IPv6, Internet

Conformity & Interoperability

IPv6 Roadmaps
Case studies
Forums
Technical assistance trainings
Projects and Partnerships

Bhutan, Brunei, Cambodia, China, Fiji, India, Mongolia, Pakistan, Sri Lanka, Thailand
Digital transformation requires an ecosystem approach

Source: ITU-T Focus Group on Smart Sustainable Cities
Digital Transformation Process
Example architectural map using the SDG Digital Investment Framework

Common ICT Building Blocks enable generic business processes, or WorkFlows, that can be combined and repurposed in multiple ways to deliver priority Use Cases that contribute to SDG Targets.

National governments can prioritize Use Cases according to citizens’ needs (eg improve neonatal outcomes), map functionality across sectors, and then invest in shared infrastructure comprising ICT Building Blocks.
GSR-18 Best practice guidelines
New Regulatory Frontiers to Achieve Digital Transformation

Regulators participating in the 2018 Global Symposium for Regulators, recognize that, flexible and innovative policy and regulatory approaches can support and incentivize digital transformation. The best practices in this regard would allow us to respond to the changing landscape and address the continuing need for secure and reliable ICT infrastructure, affordable access to and delivery of digital services, as well as protect consumers and maintain trust in ICTs.

I. Fostering the potential of emerging technologies for digital transformation
II. Business and investment models to support digital transformation
III. Policy and regulatory approaches for continued innovation and progress
Achieve SDGs through Cross-Sectoral Collaboration
Digital infrastructure - Key to digital transformation

- Core transmission networks are the essential underpinning of broadband access networks.

- The IP connectivity required to deliver these content, services and applications is achieved at certain Tier 1 points of presence (POPs), which are physically located in buildings in certain places.

- What to make available and to whom? Policy controlled through the format in which the map and its underlying database is made available, and the level of disclosure is addressed as part of a formal validation process.

- Over 3.4 million km of Transmission Networks are now represented in the map interface for all regions (increase of 29% over the last 12 months, compared to July 2017).

- Asia-Pacific region remains the largest region represented in the map in terms of data, with almost twice the number of kilometres as the next largest region (CIS).

- Asia-Pacific contains over 1 million kilometres of network data. Over 200,000km have been added in the last 12 months (= 26% increase since July 2017).

- Submarine Cables and Global Internet Exchange Points are now displayed by default when the Transmission Map loads, offering a full view of the complexities of international transmission networks when the map loads.

(Links: [http://www.itu.int/itu-d/tnd-map-public/](http://www.itu.int/itu-d/tnd-map-public/))
Digital Economy and inclusive digital Society

- E-agriculture
- Digital finance
- m-health
- Smart sustainable cities and digital government

National strategies
Case studies
Solutions support
Forums
Trainings
Projects and Partnerships

Afghanistan, Bhutan, China, Fiji, India, Mongolia, Pakistan, Papua New Guinea, Philippines, Sri Lanka,
Country Assistances

Afghanistan
Bhutan
Fiji
Mongolia
Papua New Guinea
Pakistan
Philippines
Sri Lanka

Case studies

Solutions Forum

Trainings

FAO-ITU: E-agriculture Strategy Development
FAO-ITU-GIC: Use of drones, satellite imagery and GIS from agriculture

E-agriculture – Asia-Pacific
Mongolia (2017)
Digital Financial Services (DFS) and Digital Financial Inclusion (DFI) Ecosystem in Mongolia: A study with focus on cross-sectoral policy and regulatory collaboration

China (2018-2020)
Cooperation with World Bank, Bill & Melinda Gates Foundation and CAICT as part of FIGI project

India (2018)
Capacity building on Understanding Digital Payments with Niti Aayog and DOT

Thailand (2018)
Regional CoE training on Distributed Ledger Technologies with NBTC and MDES (Thailand)

Ongoing discussions during various regional forums, e.g. ITU Regional Development Forum 2018 (Bangkok)- Thank UNCDF to share experience in 2018
ITU-WHO: ICTs for better health outcomes: eHealth (SDG 3)

Be He@lthy Be Mobile: Scaling up Digital Health Globally

- mDiabetes
- mCessation
- mSmartlife
- mHypertension
- mCervicalCancer
- mAgeing
- mTuberculosis_Tobacco

NCD Deaths – 38 million annually

2011 UN High-level Declaration on NCDs

Country Assistances

India: mTobacco Cessation
Philippines: mTobacco Cessation
Request from 100 countries

Survey on Tobacco: Compliance / Non Compliance

Thailand
Pakistan
Mongolia
Chile

tobaccospotter.org #ReadySpotGo

National eHealth Strategy Toolkit
National Strategies: 69
eHealth Information System: 76

ICT for Women & Children’s Health

Interoperable standards on e-Health
U4SSC is a United Nations Initiative coordinated by ITU and UNECE that advocates for public policy to encourage the use of ICTs to facilitate and ease the transition to smart sustainable cities.

U4SSC was launched by ITU and UNECE to respond to the Sustainable Development Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable.

UN4SCC developed set of KPI criteria to evaluate ICT's contributions in making cities smarter and more sustainable, and to provide cities with the means for self-assessments in order to achieve the sustainable development goals (SDGs).
Emergency telecommunications is an integral part of Telecommunications Development Bureau (BDT). Emergency Telecommunications division implements activities related to telecommunications/ICTs in disaster management and disaster risk reduction.

Importance of ITU’s Assistance

Providing a communication equipment for the government that is critical in:
- Coordinating rescue and relief operations;
- Setting up telemedicine links between hospitals and medics in the field;
- Providing call centers where disaster victims can contact their loved ones.
- Coordinating infrastructure recovery/re-building operations.

1.7 TRILLION DAMAGES (USD) 2.9 BILLION AFFECTED 1.2 MILLION KILLED
Disaster Mitigation and Preparedness

National Emergency Telecommunication Plans
- Papua New Guinea
- Samoa
- Solomon Islands
- Vanuatu

Workshops and capacity building
- Global meeting (GET)
- Regional and national trainings

GET 2019
Mauritius
6-8 March

WFP
Digital Skills for the Future
Youth employment: A challenge of both quality & quantity jobs

71 million youth are unemployed and 160.6 million are employed but live in poverty.
Continuum of Digital Skills

- Basic Skills:
  - Creating professional online profiles
  - Word processing
  - Managing privacy settings
  - Email

- Intermediate Skills:
  - Desktop Publishing
  - Digital Graphic Design

- Advanced Skills:
  - Artificial Intelligence
  - Digital entrepreneurship
  - Cybersecurity
  - Internet of Things
  - Virtual reality

- Additional Skills:
  - Using keyboards and touch-screens
21st Century skills

Source: World Economic Forum
Skills differences have impact on effective use of the Internet

Percentage of individuals with ICT skills, by region, 2017
The Importance of Digital Skills in Society

**Operational skills:**
Technical skills that allow one to operate ICTs, referred to as ‘button’ knowledge.

**Content creation skills:**
The ability to create (quality) content to be published and shared with others through ICTs.

**Information management skills:**
Finding your way around information, including the ability to find, select, and evaluate digital sources of information.

**Social skills:**
The ability to use ICTs to develop positive, beneficial relationships, exchange meaning and pool knowledge.

**Achievement of beneficial outcomes of ICT use.**
(Problem solving)

**Avoiding negative outcomes of ICT use.**
(Safety)
Skills are important at every stage of employment

- **Not (yet) employed**
  - 1. Formal Education
  - 2. Finding a job
  - 3. Getting a job

- **In employment**
  - 4. Workplace integration
  - 5. Job performance
  - 6. Managing others
  - 7. Promotion to better job

- **8. Adjustment to changing work environments (life long learning)**
Policy agenda

Broadening scope
- Moving from access to skills
- Expanding digital skills training
- Define transferable skills for a digital future

Targeting policies and interventions
- Distinguishing contexts
- Target policies to groups
- Tailor policies to national context

Improving evaluation
- Improving conceptualization and measurement
- Accountability around outcomes
- Sharing of best and worst practices
Roadmap to Accelerated Digital Skills Development

1. Create a digital skills coalition, council or task-force:
   a. Use the coalition/council/task-force to engage a range of stakeholders who can contribute to developing and/or implementing the strategy, including identifying current and future digital skills needs and goals, ideally across sectors.
   b. Analyse the strengths and weaknesses of each stakeholder, and from this, identify the role they can play in defining and implementing the strategy.
   c. Agree on governance, working methods or charters for the council/coalition/task-force.

2. Define the main categories of digital skills that the strategy will develop, recognizing that digital skills exist on a spectrum from basic, intermediate to advanced skill levels.
   a. Alternatively define the digital competence areas the strategy will foster; or
   b. Consider defining digital skills’ relation to 21st century skills.
   c. For education, consider providing foundations for more advanced digital skills such as computational thinking.

3. Inventory existing policies, plans and programmes that support the development of digital skills and analyse how they can be used to support the goals of the digital skills strategy.

4. Identify current and future trends in relation to demographic trends, technological changes, business trends, trade, industrial policies, and the shift to a greener economy, etc.

5. Identify new policies and programmes that are needed and conduct advocacy both using the existing policies and to build support for new policies.

6. Draft a digital skills development strategy:
ITU-ILO: Digital Skills for Decent Jobs for Youth Campaign to train 5 million youth with job-ready digital skills

- ILO and ITU are leading the Digital Skills for Decent Jobs Campaign as part of the Global Initiative on Decent Jobs for Youth in order to foster decent and inclusive employment and entrepreneurship opportunities in line with the Sustainable Development Goals.

- Advanced digital skills: related to technology development such as coding, software and app development, network management, machine learning, big data analysis, IoT, cybersecurity or blockchain technology;

- Basic digital skills: related to the effective use of technology, necessary in most professions. They include web research, online communication, use of professional online platforms and digital financial services;

- Soft skills: skills necessary to all professionals to ensure collaborative and effective work in the digital economy. They include leadership, communication and teamwork skills, client-orientation, among others.

- Digital entrepreneurship: digital skills required by entrepreneurs, including online market research, strategic planning and business analysis, using financing and crowdfunding platforms, online marketing, and online networking and establishing mentoring relationships.

Ministers of ICT, Labour and Education, national governments, the private sector, training providers, Academia, NGOs, other members of the UN family as well as other interested parties are actively encouraged to participate.
More than 70 events reported for Girls in ICT Day (Asia-Pacific) in 2019

Enhance employment opportunities for girls and young women in Thailand by imparting employable digital skills relevant for the local job market

- Around 400 girls trained (2017-19)
- 8 trainings held
- More partners have joined
- Partnership continues in 2019

In 2019, events were held in 102 countries around the world (more than half of ITU member states). In terms of regional distribution, there were 43 events in Africa, 167 events in the Americas, 8 in Arab States, 79 in Asia and the Pacific, 7 in CIS Countries, 76 in Europe and an additional 6 events in other places.
Human capacity building to digital skills development

4 layers of delivery

Global
ITU Academy

Regional
e.g. ASP CoE, ITP

Sub-Regional
e.g. Training for Pacific

e.g. ITCI, Country based trainings

2018: Around 25 trainings, 1300 participants

2018: sub-regional workshop Pacific

Next steps
National implementation
Project on Digital Skills and Innovation
Overview of the Training Course
Objectives

- The training aims to expand skills policy and training, and defining transferrable skills for a digital future by demonstrating to participants how they can work to address the human and technical capacity challenges involved in digital transformation through enhances digital skills.

- Fostering partnerships with academia and ICTs, government agencies, can stimulate social innovation activities that empower their communities to benefit from the digital revolution.
# Overview of Training

This four-day program focuses on developing human and technical capacity and empower participants with valuable and practical skills while solving challenges that affect their communities.

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Digital Skills Capacity Building Training

The International Telecommunication Union (ITU) and the Department of Telecommunications (DOT), Ministry of Communications, Government of India are organizing "Digital Skills Capacity Building Training" from 29 July to 1 August 2019 in New Delhi, India.

The training aims to expand skills policy and training, and defining transferrable skills for a digital future by demonstrating to participants how they can work to address the human and technical capacity challenges involved in bridging the digital divide through enhances digital skills. This training emphasizes fostering partnerships with academia and ICTs, government agencies, which eventually stimulate social innovation activities that empower communities to benefit from the digital revolution.

This four-day training will focus on developing human and technical capacity and empower participants with valuable and practical skills while solving challenges that affect their communities. Please see draft agenda for details.

To register for the above-mentioned training, participants are kindly requested to register by 30 June 2019 at the latest. The course is offered free of charge and will be conducted in English and paperless. The travel arrangements, accommodation etc. should be made and borne by the participating administration or participants directly.

Practical and general information and entry visa requirements can be found at the webpage here.

Thank You