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Development Sector

Artificial intelligence and ageing: Inclusive pathways for older persons in a digital world

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Acknowledgements

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Foreword

Population ageing and digital transformation are two defining trends of our time, and older persons stand at the centre of both, at a time when one in six people in the world is expected to be aged 65 years or over by 2050. As artificial intelligence (AI) reshapes societies at unprecedented speed – transforming public services, labour markets, health care, and everyday life – it raises a fundamental question: will the AI era reinforce existing inequalities, or become a catalyst for greater inclusion, dignity, and participation across all stages of life?

This is a critical moment to reflect on how global AI development and deployment can be shaped to build a better digital world that advances inclusion and meaningful participation for all. It is also an opportunity to ensure that digital futures are designed to be inclusive, accessible, and responsive to the needs of an ageing society. Within this broader demographic shift, particular attention must be paid to older women, who will constitute the majority of the world's rapidly growing older population and whose experiences are shaped by the combined effects of age, gender and geography. Yet older women remain markedly underrepresented in AI policy, design and literacy initiatives, making deliberate action essential to prevent existing inequalities from persisting or widening as societies become increasingly digital.

This joint publication brings together our respective expertise and strengths to explore the intersection of ageing, gender, and artificial intelligence through the lived realities of older persons, with a particular focus on older women. It highlights both the opportunities and challenges of AI, recognising older women not only as beneficiaries of change, but as active participants whose perspectives, knowledge, and contributions are essential to shaping more inclusive and sustainable digital futures.

Building on these reflections, the report provides a comprehensive analysis of how artificial intelligence can empower older women and support more responsive approaches to policy, data, design, and the deployment of AI-enabled Information and Communication Technologies (ICT) products and services. It underscores the importance of fostering age-friendly AI environments that expand participation in digital societies and economies, and enable older persons to continue contributing meaningfully to their communities and to society at large.

Through analysis, case studies, and practical recommendations across key life domains, the report outlines pathways for governments, industry, academia, and civil society to harness artificial intelligence in ways that expand opportunity, foster meaningful participation, and enhance quality of life for ageing populations. It offers strategic directions for advancing the inclusion of older persons in the digital era.

The choices made today will shape the societies of tomorrow. Ensuring that older persons, especially older women, can fully participate in and help shape the AI era is not only a matter of inclusion; it is also fundamental to building digital futures that are more human-centred, equitable, resilient, and beneficial for all.

Dr Cosmas Luckyson Zavazava
Director of the Telecommunication Development Bureau
International Telecommunication Union

Ms Gillian Hinde
Global Corporate Responsibility Leader
EY

Dr Moon Jeong Choi
Endowed Chair Professor and Director
Aging and Technology Policy Lab
Korea Advanced Institute of Science and Technology

Executive summary

The world's population is ageing. By 2050, one in six people will be aged 65 or older. At the same time, the use of artificial intelligence (AI) is shifting from a specialized tool to one that underpins everyday life, reshaping how people access health care, manage money, find work, and stay connected to their communities.

These two transformations are unfolding in parallel, yet they are rarely considered together. This report asks how AI should serve, rather than sideline, the ageing population in an AI-driven world.

The AI divide across age, gender, and region

The evidence assembled in this report shows that the benefits of AI are not reaching older persons, and that older women are the least likely to benefit. For example, data suggest that AI use falls sharply with age, peaking among adults aged 30 to 44 and dropping sharply among those aged 60 and over, and that older women are less likely to use AI than older men. Such gaps are further compounded by geographic disparities, with AI adoption growing nearly twice as fast in developed regions as in developing regions. It appears that age, gender, and region all intersect to produce layered disadvantages, which in turn suggests that no single policy lever can address them.

Rethinking digital literacy and the role of AI

This report also suggests that, as AI develops and is more widely deployed, the definition of digital literacy should be revised for an era of generative and agentic AI, one in which even adopters of computers and smartphones may no longer have the skills they need. Older persons already make up a growing share of AI users, yet research and public debate have largely overlooked them. This report further calls for AI to be understood as more than assistive technology for older persons. It is a form of social infrastructure and a set of empowering tools that reshape health, economic participation, and community life. From this perspective, older persons are no longer seen as passive recipients of care but as active participants in an AI-enabled society.

AI across the domains of later life

This report examines how AI is reshaping key elements of older people's lives, including health, economic security, lifelong participation, and cyber-physical connectivity. For each area, it identifies where intervention needs to focus and weighs the associated risks against the opportunities that emerge when AI systems are designed inclusively from the outset.

What works: lessons from practice

Key lessons from multiple regions are used to highlight practical strategies that have successfully advanced AI inclusion for ageing populations. Recurring ingredients of success include public-private partnerships, community networks, and local outreach systems, which build confidence and resilience as well as delivering content. Together, these cases offer a tested set of approaches for narrowing the AI divide.

Recommendations

The report translates this evidence into action for four groups of stakeholders:

1) Policy-makers and international organizations should design inclusive AI strategies for rapidly ageing societies, with explicit attention to those regions where older persons face intersecting barriers of age, gender, digital access, and economic vulnerability.
2) Businesses and technology developers should adopt inclusive AI design practices, including age- and gender-representative datasets, accessible interfaces, and human-centred deployment.
3) Civil society and NGOs should empower older persons with the tools, confidence, and resilience to navigate AI safely.
4) Innovators and investors should recognize the opportunities of the longevity economy and the AgeTech sector, supporting older persons as active contributors and creators.

A call to inclusive action

Ageing societies and ubiquitous AI are now unavoidable features of the global socioeconomic landscape. Whether AI deepens existing inequalities or helps reduce them will depend on choices made today by governments, companies, and communities. By placing ageing populations, and especially older women, at the centre of AI policy, design, and literacy efforts, this report offers a way forward for AI transition to become one of empowerment and inclusion for people of every age.

1 AI empowerment of ageing populations

1.1 Framing AI for ageing populations: A focus on women

The world is undergoing two converging transformations: rapid population ageing and the rise of artificial intelligence (AI). By 2050, one in six people globally will be aged 65 or over (United Nations Department of Economic and Social Affairs, 2023). At the same time, AI is rapidly reshaping how people work, access public services, manage their health, and participate in civic life. The question is no longer whether these two transformations will intersect, but whether their intersection will lead to empowerment or exclusion. Despite the scale of this convergence, older women remain markedly underrepresented in AI policy, AI design, and AI literacy initiatives. Without deliberate action, these gaps may persist or widen as essential civic, financial, and administrative services continue to digitize.

Within this broader demographic shift, it is critical to apply a gendered lens. The majority of this rapidly growing ageing population will be women – a reality of gendered ageing – driven by women's longer life expectancy and shaped by their lifelong exposure to compounded disadvantages in wealth, formal education, digital skills, and chronic health burdens (United Nations Department of Economic and Social Affairs, 2023).

A recent 16-country study found that 31 per cent of older women had never used AI, compared with 20 per cent of older men (EY, 2026). To ensure that AI serves as an enabling technology rather than a driver of systemic exclusion, thought leadership is needed in how these systems are developed, deployed, and governed, with particular focus on ageing populations and women, whose intersectional experience of age, gender, and geography has been the least examined in the AI development and governance discourse.

This report offers an evidence base for action. Through a gendered lens, it examines the current state of AI adoption among ageing populations; identifies the dimensions of AI literacy that older adults, particularly women, need in order to engage with these tools safely and confidently; analyses the life domains where AI most directly shapes later life (health, economy, and community); and synthesizes lessons from 14 interventions across developed and developing regions. This evidence offers actionable pathways for public-private partnerships, civil society, the technology sector, governments, and current and future older adults.

To ground the analysis, it helps to begin with a shared understanding of what AI is. AI is neither a sudden breakthrough nor a substitute for human judgment, but a discipline with a long history of innovation cycles and a well-established technical foundation (Russell & Norvig, 2010). For policy-makers, treating AI as a highly capable tool designed to support human well-being, rather than as an autonomous agent, is essential for sound governance. The table below outlines how key international bodies operationalize AI, with attention to utility, safety, and rights.

Table 1. Selected definitions of AI from key international bodies

Source / Organization	Definition / Core Text
IEEE (Institute of Electrical and Electronics Engineers, 2017)	• AI – the theory and development of computer systems that are able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, learning, decision-making, and natural language processing.
ITU (International Telecommunication Union, 2021a)	• AI – an interdisciplinary field, usually regarded as a branch of computer science, dealing with models and systems for the performance of functions generally associated with human intelligence, such as reasoning and learning.
ISO (International Organization for Standardization, 2022)	• AI – research and development of mechanisms and applications of AI systems. • AI system – engineered system that generates outputs such as content, forecasts, recommendations, or decisions for a given set of human-defined objectives.
UNESCO (United Nations Educational, Scientific and Cultural Organization, 2022)	• AI systems – information-processing technologies that integrate models and algorithms that produce a capacity to learn and to perform cognitive tasks, leading to outcomes such as prediction and decision-making in material and virtual environments.
European Union AI Act (European Parliament and Council, 2024)	• AI system – a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments.
OECD (Organisation for Economic Co-operation and Development, 2024)	• AI system – a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment.
United States NIST (National Institute of Standards and Technology, 2024)	• AI – a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments.

Despite the different focuses of these definitions, they converge on three key elements that can help guide strategic focus:

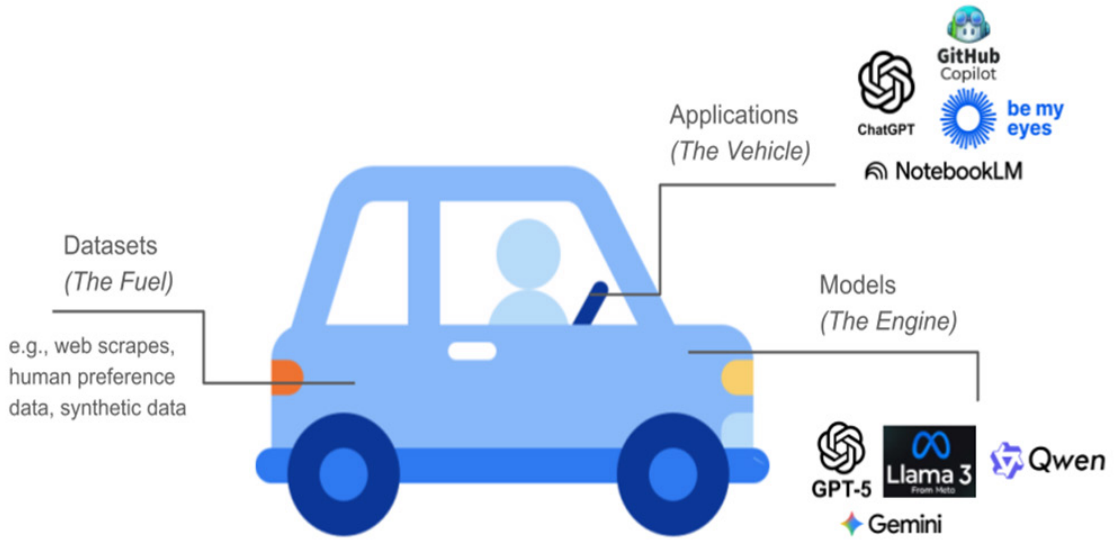
- **AI is machine-based**: It is a practical tool designed for human use.
- **AI systems are objectives-driven**: They operate to achieve specific goals defined by human actors, making them highly adaptable to targeted social initiatives.
- **AI systems operate with varying degrees of autonomy**: They can be designed to include necessary human intervention, ensuring safety and oversight.

1.2 AI supply chain

When implementing AI initiatives, it can be very helpful to distinguish between *AI models* (the underlying technology) and *AI applications* (the user-facing tools). This report draws on the AI supply chain framework (Bommasani et al., 2023), which conceptualizes AI across three layers. A useful metaphor for this structure is a car:

- **Datasets (Fuel)**: The raw information used to train the system. Most major models are fuelled by massive scrapes of the open Internet, which may contain historical prejudices, stereotypes, and misinformation alongside human knowledge.
- **Models (Engine)**: Computational engines trained on datasets to create a functional representation of the world (e.g., massive foundation models).
- **Applications (Vehicle)**: The user-facing tools where human-AI interaction actually occurs. This layer wraps the raw model in a user interface (UI) and limits its functionality to specific tasks.

Figure 1. Car metaphor for an AI supply chain



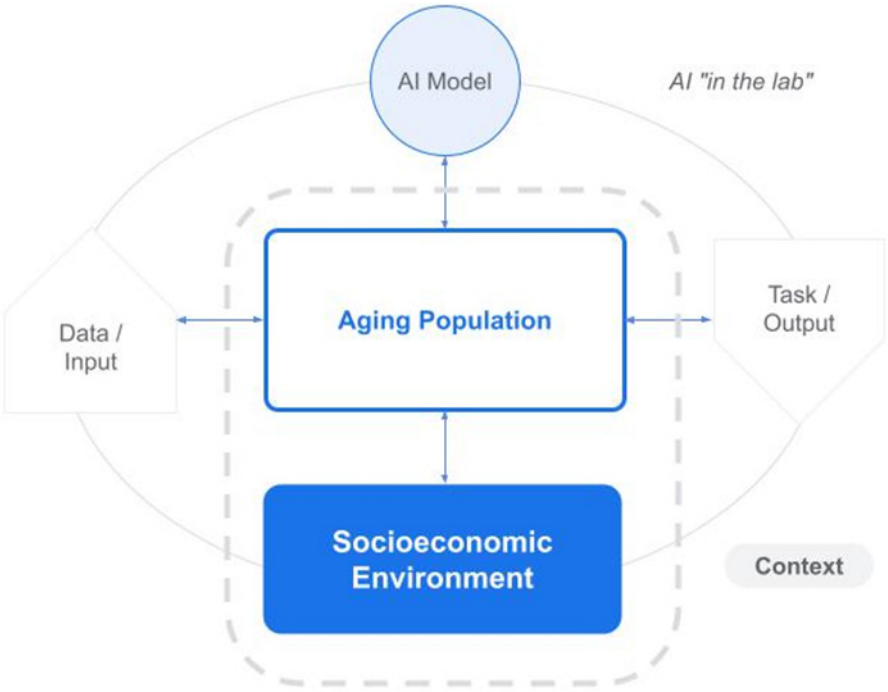
Source: Authors.

With a goal of supporting real-world impact, the following sections focus primarily on AI applications, the impact on current and future ageing populations, and the tools they interact with in their everyday lives, rather than the theoretical architecture.

1.3 Value of social context

Defining what AI is technically capable of doing does not fully capture how AI systems interact with the complex realities of an ageing society. Integrating the technical dimensions of an AI system with its social environment helps bridge the gap between "*AI in the Lab*" (theoretical capability) and "*AI in the Field*" (real-world impact) (OECD, 2022).

Figure 2. AI system for an ageing society



Source: Modified with reference to the OECD Framework for the Classification of AI Systems.

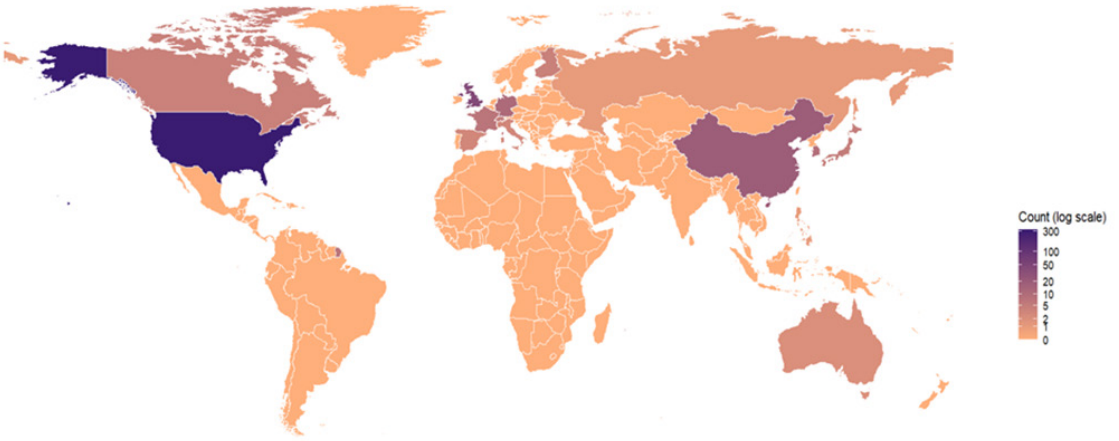
When deploying AI tools for ageing populations, two primary contextual dimensions often influence the success of an intervention:

- **An ageing population**: AI applications tend to be most effective when they account for demographic disparities and align with a model of a digitally inclusive society (ITU, 2025a). This framework emphasizes the complexity of intersectionality, demonstrating how ICTs and AI should address the needs of diverse groups: women, remote communities, and older adults. This report specifically guides interventions for current and future older adults, particularly women, who frequently experience compounded vulnerabilities at the intersection of age, gender, and socioeconomic status (ITU, 2021b).
- **Socioeconomic environment**: This dimension defines the infrastructure and resource constraints of the deployment setting. For example, an AI application requiring constant high-speed connectivity may face challenges in rural areas due to a persistent digital divide (ITU, 2025b).

1.4 The demographic landscape

Applying this framework on a global scale reveals a geographic contrast that targeted interventions can help address: there is a significant divide between where AI is built and where ageing is accelerating. The overwhelming concentration of AI infrastructure exists in the developed regions (Bommasani et al., 2023; Stanford Institute for Human-Centered Artificial Intelligence, 2024), while the most explosive growth in ageing populations (specifically the 40–64 cohort) is concentrated across the developing regions (United Nations Department of Economic and Social Affairs, 2024).

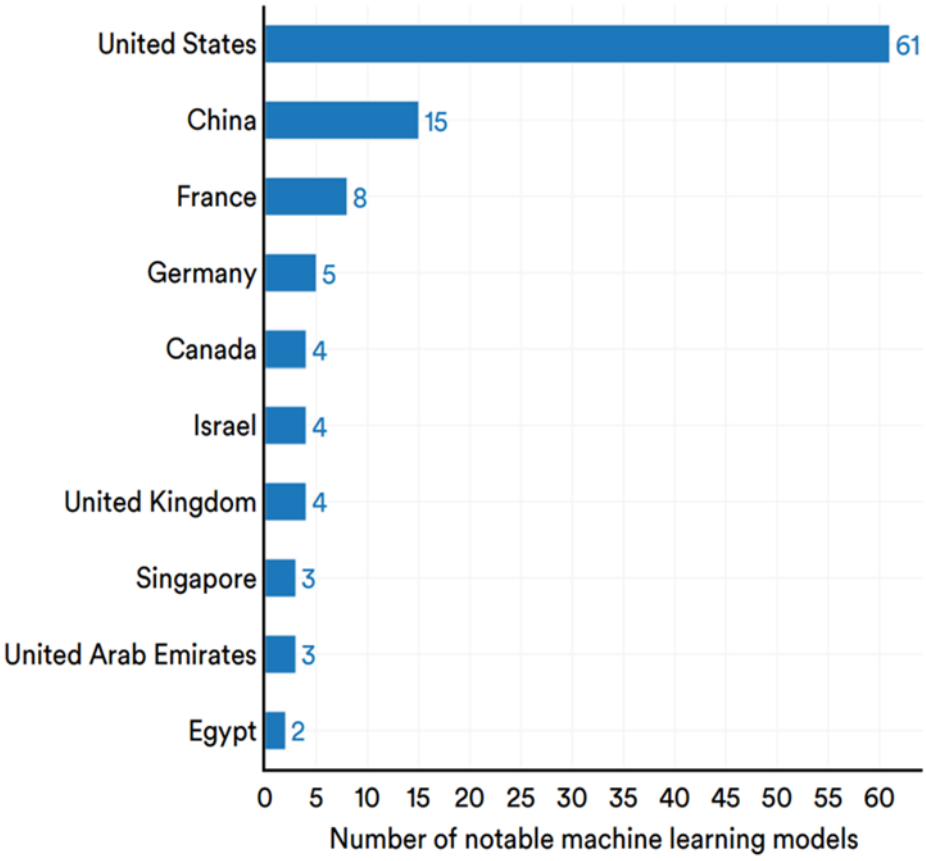
Figure 3. Global distribution of AI models



Data Source: Stanford Institute for Human-Centered AI (HAI) Ecosystem Graphs.

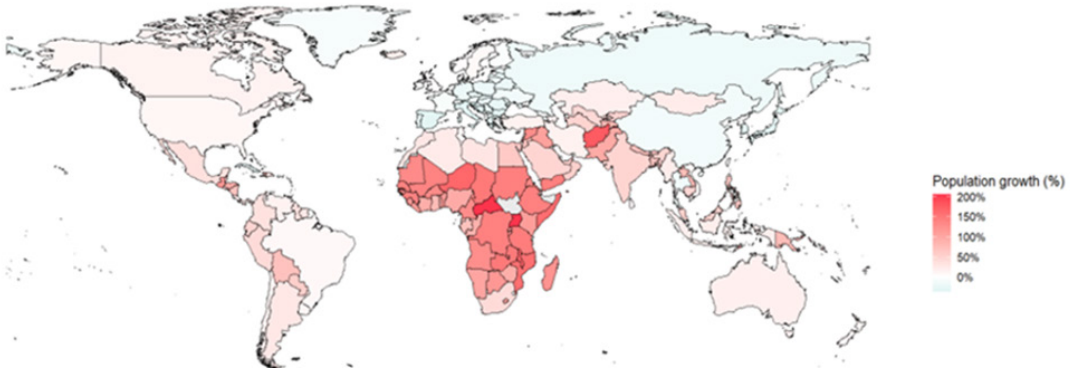
Note: The designations employed and presentation of material in this publication, including maps, do not imply the expression of any opinion whatsoever on the part of ITU concerning the legal status of any country, territory, city or area, or concerning the delimitations of its frontiers or boundaries.

Figure 4. Number of notable machine learning models by geographic area, 2023



Source: Epoch; Stanford AI Index Report 2024.

Figure 5. Projected growth of population aged between 40 and 64 (2025 to 2050)



Source: UN Population Division Data Portal.

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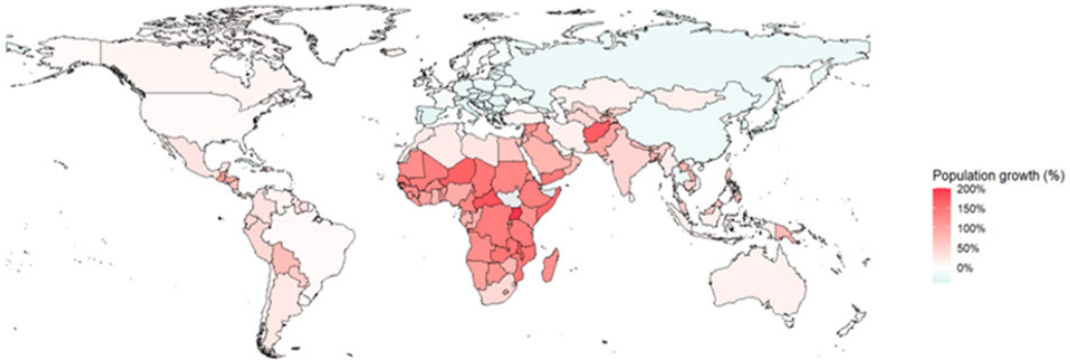
When applying a gendered lens to this demographic shift, an intersectional vulnerability becomes apparent. Globally, the feminization of ageing highlights that women tend to live longer than men, but they frequently do so with compounded disadvantages, including fewer financial resources, lower formal education, lower digital skills, and a higher burden of chronic health conditions (United Nations Department of Economic and Social Affairs, 2023).

Figure 6. Projected growth in the number of women aged between 40 and 64 (2025 to 2050)



Source: UN Population Division Data Portal.

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Because global resources for AI are overwhelmingly concentrated in developed regions, the narrative around ageing and technology can sometimes overlook the populations growing fastest. For an ageing woman in developing regions, navigating the intersection of age, gender, and geography often means she is overlooked. This divergence presents a meaningful opportunity for strategic focus. To empower these populations, efforts might pivot toward active digital inclusion. To understand exactly where and how these interventions can be most effectively applied, the following sections will explore the current AI divide, outline the value of AI literacy, and look at specific life domains where AI intersects with the everyday realities of the ageing population, particularly women.

2 Understanding the AI divide

The rapid global deployment of AI presents transformative opportunities, but its equitable integration is currently influenced by the digital divide. As highlighted by ITU, tackling intersectional disadvantages requires a foundation built on three pillars of digital inclusion: meaningful universal connectivity, affordability, and accessibility (ITU, 2025a). Through this lens, the AI divide is not merely a gap in technological access but a significant disparity in awareness, adoption, and digital confidence. Addressing these disparities presents a valuable opportunity to ensure that ageing populations are supported rather than marginalized in an increasingly digital era.

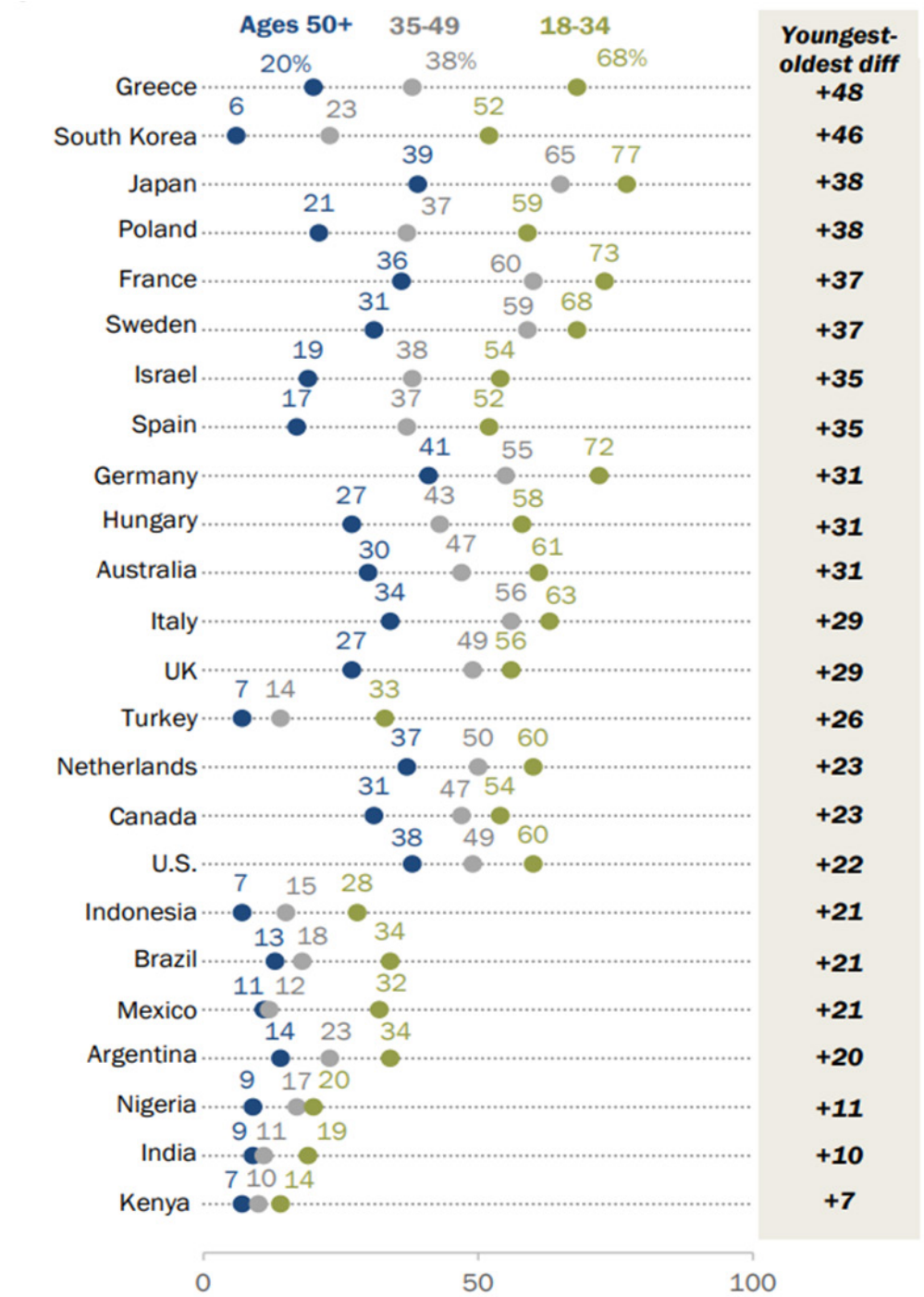
2.1 Age disparities in adoption

Global AI adoption metrics reveal a significant stratification, characterized by a persistent youth-led trend and a decline in engagement corresponding with advancing age. According to data obtained via the NORC AmeriSpeak Omnibus survey, general AI usage rates peak among 30–44-year-olds (31%) but decline to just 8 per cent for populations aged 60 and above (Alikhani et al., 2025).

Similarly, workplace integration highlights this generational difference. While millennials (ages 29–44) are emerging as intensive power-users with 24 per cent using AI daily, Baby Boomers (ages 61–79) report the lowest usage, with only 11 per cent using it daily (Menlo Ventures, 2025). Quantitative analyses further support this, indicating that every year of age and experience is associated with a 1 per cent lower likelihood of using primary AI tools (Humlum & Vestergaard, 2024).

These adoption gaps are frequently rooted in disparities regarding awareness. The Pew Research Center Global Attitudes Survey (2025) reveals that across more than 20 countries, AI awareness among young adults is significantly higher than among adults over 50. Technologically advanced nations with rapidly ageing populations – such as Greece, Republic of Korea, Japan, and Poland – often exhibit some of the most notable generational drop-offs in AI awareness globally.

Figure 7. Percentage who say they have heard or read a lot about AI, by age



Note: Only statistically significant differences are shown. Adults ages 50 and older were less likely to provide a response than adults under 35 in India, Indonesia, Kenya, South Korea and Turkey.
Source: Spring 2025 Global Attitudes Survey.
"How People Around the World View AI"

Source: Pew Research Center Global Attitudes Survey 2025; Note: South Korea refers to the Republic of Korea, UK refers to the United Kingdom, and U.S. refers to the United States.

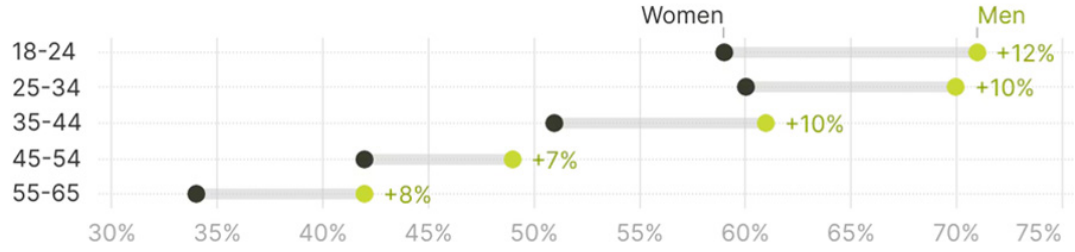
2.2 The gender gap and intersectional challenges

While age-related disparities play an important role in understanding the AI divide, synthesizing recent global data reveals a consistent gender gap in the adoption of AI tools, heavily influenced by sociocultural factors and digital confidence. Platform demographics illustrate this trend, noting gender disparities in the major generative AI platforms: roughly 42 per cent for ChatGPT, 42.4 per cent for Perplexity, and 31.2 per cent for Anthropic (Cranney et al., 2026).

A report across 16 countries by EY (2026) found that 31 per cent of older women had never used AI, compared to 20 per cent of ageing men. This disparity in adoption is closely tied to differing levels of AI anxiety and perceived utility. Research highlights that women generally report higher AI anxiety and a greater tendency to perceive AI systems as complex to learn (Russo et al., 2025). In the United Kingdom, for instance, 47 per cent of women reported being more concerned than excited about AI in daily life, compared to 32 per cent of men (Pew Research Center, 2025).

When compounding the data on gender with age disparities, an intersectional challenge becomes clear. The World Economic Forum (2024) notes that engagement falls to its lowest point in the oldest bracket of the workforce (aged 55+), where male adoption sits at 42 per cent against 34 per cent for female adoption. However, a comprehensive intersectional approach requires recognizing that women are not a homogeneous group; for those at the demographic margins, adoption lags are often compounded by additional, overlapping barriers such as disability, low traditional or digital literacy, poverty, and rural residency. To address these compounded forms of exclusion, it is essential to embed specific accessibility features into AI-enabled ICT products and services (ITU, 2025a). Integrating tools such as text-to-speech, speech-to-text, voice-based navigation, live captioning, translation, and simplified user interfaces can directly mitigate these barriers, ultimately supporting more equitable and inclusive digital participation.

Figure 8. Percentages of global workers by age and gender who say they use generative AI at least once a week

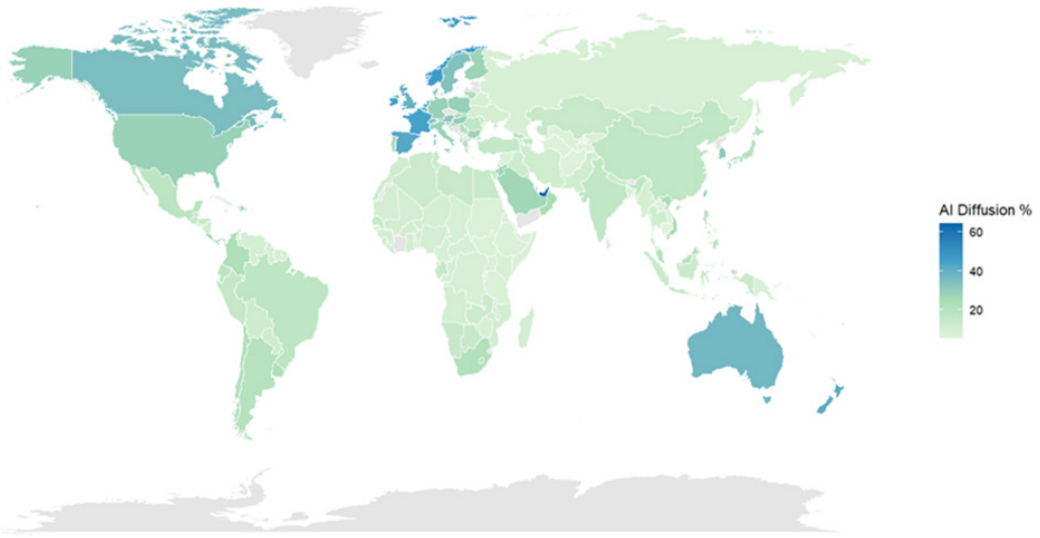


Source: World Economic Forum, 2024; Oliver Wyman Forum, 2024.

2.3 Geographic disparities

Beyond demographics, geographic regions frequently influence baseline access and cultural attitudes toward AI. High-fidelity utilization remains closely tied to a nation's GDP and digital infrastructure. AI adoption is growing almost twice as fast in developed regions, widening the usage gap by 10.6 percentage points compared with developing regions (Microsoft AI Economy Institute, 2026). Furthermore, Anthropic data highlights a 0.7 per cent increase in Claude usage per capita for every 1 per cent increase in GDP per capita (Appel et al., 2025).

Figure 9. Global AI diffusion rates 2025



Data Source: Microsoft AI Economy Institute, 2026.

Notes:
AI diffusion is defined as the share of people worldwide who have used a generative AI product.
The designations employed and presentation of material in this publication, including maps, do not imply the expression of any opinion whatsoever on the part of ITU concerning the legal status of any country, territory, city or area, or concerning the delimitations of its frontiers or boundaries.

Furthermore, micro-level geographic divides exist even within technologically advancing nations, frequently taking the form of an urban-rural split. The European Union reports a persistent gap, with urban residents demonstrating significantly higher levels of advanced digital skills (33%) than those in rural areas (20%) (Pham et al., 2024). In China, while first-tier metropolises such as Shenzhen feature cutting-edge AI infrastructure, rural western provinces frequently struggle with basic broadband connectivity (Liu & Zhang, 2025). Because rural areas globally tend to see higher concentrations of ageing populations due to youth out-migration, regions with the lightest AI infrastructure often overlap with areas where ageing populations are most concentrated.

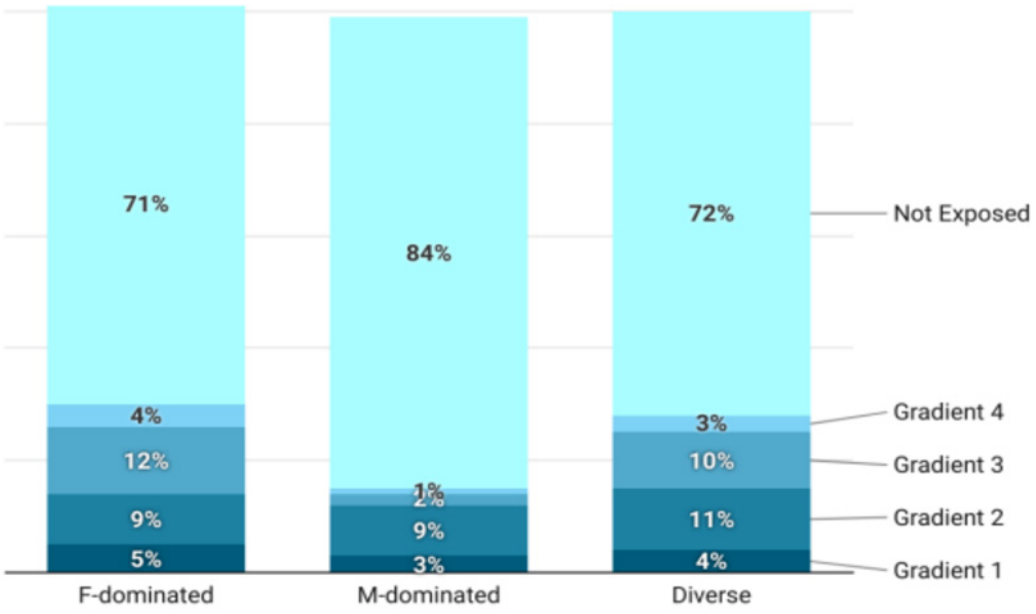
2.4 From disparities to opportunities for intervention

When analysing these statistical disparities, a common perspective is that individuals navigating the AI divide might simply opt out and rely on traditional alternatives. However, the AI divide is increasingly viewed as a potential risk of structural exclusion. Rather than viewing this as a permanent barrier, this shift highlights three clear areas where targeted programmes can make an impact for ageing populations, particularly women:

- **Navigating the transition of analogue infrastructure**: Driven by macroeconomic efficiency, governments and private institutions are increasingly moving essential civic, financial, and administrative services into automated systems, reducing traditional human fallback options. For ageing populations, navigating lower AI literacy is rarely just a technological choice; it can lead to marginalization from essential infrastructure (Helsper, 2021). Interventions that focus on practical, everyday AI literacy can act as a crucial bridge, ensuring ageing populations maintain their autonomy and continue to access vital societal services.

- **Closing the system-invisibility gap**: A significant challenge of the AI divide is that low digital adoption frequently translates into low data representation. Because older women have lower AI adoption rates, their behavioural and lifestyle data are often absent from the data used to train foundation models – an absence that can inadvertently embed systemic biases into the resulting technology. As the ITU report emphasizes (2025a), preventing such bias during model construction is especially important. Driving active AI adoption among ageing populations is therefore one powerful means of addressing this data gap. By funding initiatives that bring more older women into the digital ecosystem, stakeholders can help ensure that future AI tools are trained on diverse, representative inputs – and are thus better able to recognize and support these women (ITU, 2025a).
- **Mitigating socioeconomic displacement**: Female-dominated occupations currently face high levels of exposure to generative AI disruption (ILO, 2026). Without supportive upskilling, women can be disproportionately vulnerable to the shifting dynamics of automation, risking further distance from the digital economy. Targeted upskilling and reskilling programmes offer a valuable pathway to transition this technological exposure into empowerment, equipping ageing populations to leverage AI for task augmentation and continued economic resilience.

Figure 10. Exposure to generative AI for female-dominated, male-dominated, and mixed occupations



Source: International Labour Organization, 2026.

Note: This figure categorizes occupational exposure to generative AI on a continuous scale, ranging from gradient 1 (low exposure with high potential for task augmentation) to gradient 4 (high exposure with significant risk of task automation).

3 Understanding AI literacy

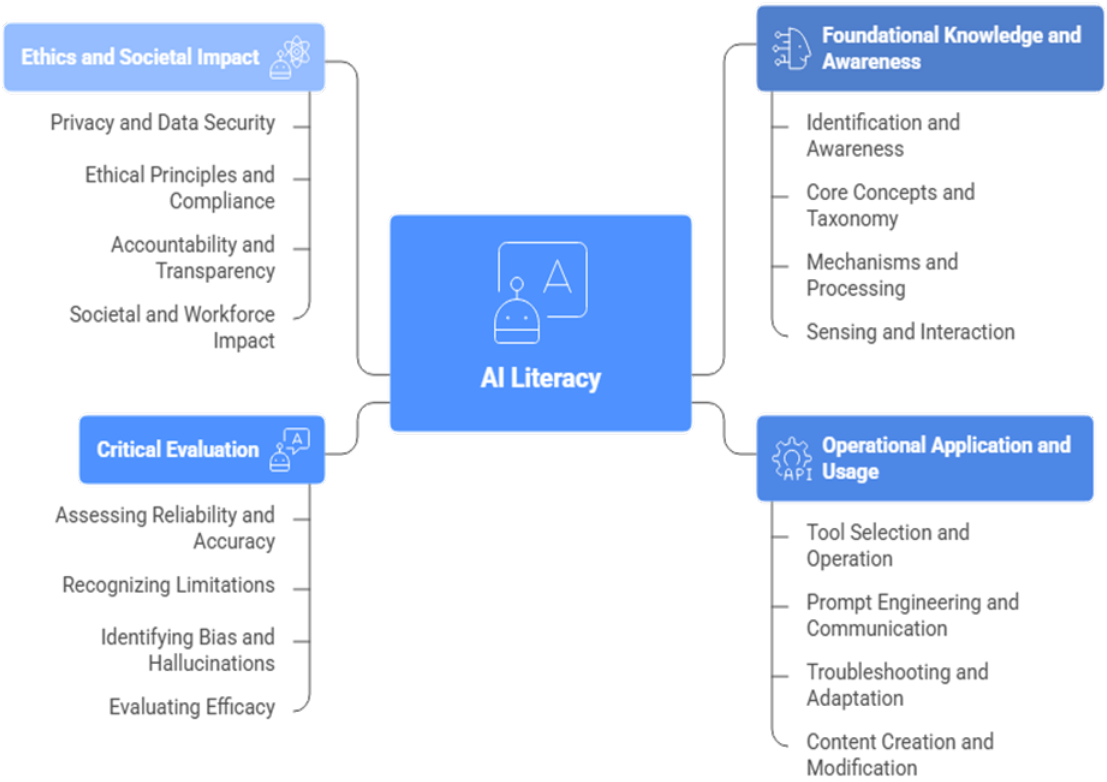
Building on the systemic challenges of the AI divide established in the previous section, it is clear that simply deploying technology is insufficient for societal empowerment. For ageing populations – particularly women – to safely, confidently, and effectively engage with these evolving tools, it is valuable to expand the focus from evaluating technological capability to building human capacity. This involves establishing a clear, evidence-based blueprint of what AI literacy actually entails.

3.1 An evidence-based framework

To ensure future initiatives are grounded in proven methodologies, a comprehensive scoping review was conducted to understand how existing literature operationalizes AI literacy for the general public. Following PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, this review analysed academic literature across the underlying AI technology, the human capabilities required, and the measurement tools used to evaluate proficiency. Importantly, to ensure relevance to programmatic design, the analysis specifically filtered for studies that focused on everyday citizens and non-technical professionals. From an initial pool of 334 records from Scopus and Web of Science, a total of 52 studies (15.6%) met all criteria and were finally included and analysed.

3.2 Core dimensions of AI literacy

Figure 11. Core dimensions of AI literacy



A review of current AI literacy measurement instruments reveals that the construct is highly multidimensional. AI literacy extends beyond just technical operation, encompassing cognitive understanding, critical evaluation, ethical reasoning, and psychological readiness. Based on the reviewed studies, AI literacy can be structured into the following four core dimensions.

3.2.1 Dimension 1: Foundational knowledge and awareness

The most fundamental layer of AI literacy is the conceptual understanding of what AI is and how it functions. This dimension measures a user's theoretical knowledge and their ability to recognize AI in their environment. Among the included studies, this dimension is measured by items related to:

- **Identification and awareness**: Users should possess the ability to distinguish between AI-driven technologies and traditional, non-smart devices (Dong et al., 2025; Han & Zhang, 2025; Laupichler et al., 2023; Wang et al., 2023). This includes recognizing when AI is actively employed in everyday applications, platforms, and services.
- **Core concepts and taxonomy**: An AI literate individual can explain the basic definitions and principles of AI (Subaveerapandiyan et al., 2024). Furthermore, they can be familiar with the distinctions between various subfields, such as machine learning, deep learning, and natural language processing (Delcker et al., 2025). They can also differentiate between narrow (weak) AI and general (strong) AI (Dong et al., 2025).
- **Mechanisms and processing**: Beyond definitions, AI literacy requires an understanding of how AI processes information. This includes understanding the differences between rule-based systems and machine learning, and the foundational role that data plays in training, testing, and validating models (Dong et al., 2025; Laupichler et al., 2023).
- **Sensing and interaction**: Users should understand how AI perceives the world, recognizing that computers use sensors to collect data that is then utilized for AI purposes (Dong et al., 2025; Kong et al., 2025; Laupichler et al., 2023).

Box 1: Risks of lacking foundational knowledge

When users lack a foundational understanding of what AI is and how its underlying mechanisms work, they are prone to fundamentally misunderstanding the purpose of technology. An example of this occurred in the 2023 Mata v. Avianca Airlines legal case in the United States. Plaintiff attorneys used ChatGPT to draft a legal motion, assuming the generative AI functioned as a traditional, fact-based search engine. Because they did not understand that large language models (LLMs) are predictive text generators designed to output statistically probable strings of text rather than factually true statements, they failed to recognize that the AI was 'hallucinating'. The lawyers submitted fictitious legal precedents, complete with fabricated quotes and citations, resulting in a USD 5 000 fine. This case underscores that without literacy regarding how AI retrieves and generates data, users cannot safely deploy it in professional environments.

Source: https://www.cnbc.com/2023/05/30/chatgpt-cited-bogus-cases-for-a-new-york-federal-court-filing.html

Quiz 1: AI awareness

Q1.1. Thinking about online shopping, which of the following uses artificial intelligence (AI)?

A. Storage of account information, such as shipping addresses
B. Records of previous purchases
C. **Product recommendations based on previous purchases**
D. Product reviews from other customers

Q1.2. Choose the false statement.

A. **An automatic washing machine is an example of an AI device.**
B. Face lock feature in phones is a type of AI.
C. ChatGPT is an AI, so is Amazon recommendation system.
D. Self-driving cars are a type of narrow AI.

Note: Check the answers at the bottom of this section.

Sources: Ding et al. (2024); Pew Research Center (2023).

3.2.2 Dimension 2: Operational application and usage

This dimension shifts from theoretical knowledge to practical, hands-on competence. It assesses the user's ability to effectively integrate AI tools into their workflows to solve problems and achieve specific goals. This dimension includes measurement items related to:

- **Tool selection and operation**: AI-literate users can select the most appropriate AI application or generative tool for a specific task or problem (Chiu et al., 2025; Gümüş & Mehmet, 2025; Lee et al., 2025). It is important to possess the skills to operate these tools to improve daily work efficiency and productivity.
- **Prompt engineering and communication**: In the era of generative AI, operational literacy emphasizes communication. Users should be able to design effective prompts based on task requirements (Gümüş & Mehmet, 2025; Liu et al., 2025).
- **Troubleshooting and adaptation:** Practical application also involves technical resilience. An AI-literate user can identify, debug, and solve common technical errors or problems encountered while using AI systems or assembling AI components (Ahmad et al., 2025; Liu et al., 2025).
- **Content creation and modification**: Users should be capable of using AI to generate new content, organize ideas, and integrate AI-generated insights into their work or projects (Ahmad et al., 2025; Chiu et al., 2025; Huang et al., 2025).

Box 2: Risks of lacking operational skills

A deficit in operational skills can lead to structural vulnerability, a risk magnified among ageing populations. As civic, health care, and financial services rapidly transition to AI-driven interfaces, a lack of operational fluency can result in disenfranchisement. The World Health Organization (2022) notes that older adults are frequently excluded from training datasets and participatory design processes. When ageing populations lack the operational literacy to troubleshoot or navigate everyday problems when interacting with these adaptive systems, they may experience a loss of autonomy. Targeted, age-friendly capacity building is essential to ensure the efficiency gains of AI do not systematically exclude marginalized groups.

Quiz 2: Operational application

Q2.1. Which of the following is an application of automatic speech recognition (ASR)?

A. License plate recognition
B. Text translation
C. Spam classification
D. **Meeting transcription**

Q2.2. You have trained a computer vision model to recognize pictures of cats. It works very well except when shown a hairless cat, which it does not classify at all.

What might be the problem?

A. Poor image quality.
B. **The training data did not feature any pictures of hairless cats.**
C. The computer vision model is flawed.
D. The training data did not have enough cat images.

Note: Check the answers at the bottom of this section.

Sources: Chiu et al. (2024)

3.2.3 Dimension 3: Critical evaluation

As AI systems become more sophisticated, the ability to critically evaluate their outputs is an important component of literacy. This dimension focuses on scepticism, verification, and understanding technological boundaries. Some items related to this dimension are:

- **Assessing reliability and accuracy**: Users must be able to evaluate the accuracy, reliability, and trustworthiness of the information or content generated by AI (Liu et al., 2025; Subaveerapandiyan et al., 2024). This includes cross-referencing AI outputs with other sources to verify facts before utilization (Gümüş & Mehmet, 2025).
- **Recognizing limitations**: A critical component of AI literacy is understanding what AI cannot do. Users must recognize the limitations of AI, including its inability to perfectly replicate human judgment, complex decision-making, or emotional intelligence (Han & Zhang, 2025; Subaveerapandiyan et al., 2024).

- **Identifying bias and hallucinations**: AI literate users are vigilant regarding systematic flaws. They must be able to identify irregularities, stereotypes, and biases embedded in AI datasets and the resulting outputs (Ahmad et al., 2025; Gümüş & Mehmet, 2025; Han & Zhang, 2025).
- **Evaluating efficacy**: Users should be able to reflect on the performance of an AI tool after a period of use, continuously assessing its capabilities, consistency, and logical coherence (Liu et al., 2025; Yan et al., 2025).

Box 3: The risks of lacking critical evaluation

Without the capacity for critical evaluation, users may blindly trust AI outputs, leading to severe physical or psychological harm. This danger was illustrated in 2023 when the National Eating Disorders Association (NEDA) replaced its human helpline staff with an AI chatbot named Tessa. The chatbot instructed vulnerable users seeking help for eating disorders to behave in ways that actively exacerbate eating disorders. NEDA was forced to suspend the programme within days. If users cannot critically evaluate the safety, logic, and limitations of AI-generated advice, the deployment of AI in vulnerable contexts becomes a huge risk. A similarly dangerous failure of critical evaluation occurred that same year on Amazon, where the e-commerce market sold AI-generated mushroom foraging books that were produced entirely by large language models. Experts discovered that the AI generated factually inaccurate advice, including suggesting that novice foragers use "smell and taste" to identify wild mushrooms. A user lacking the critical literacy to verify a book, its origins, cross-reference its claims, or spot the structural tells of AI hallucinations could become a victim of misinformation.

Sources: https://www.bbc.com/news/world-us-canada-65771872
https://www.theguardian.com/technology/2023/sep/01/mushroom-pickers-urged-to-avoid-foraging-books-on-amazon-that-appear-to-be-written-by-ai

Quiz 3: Critical evaluation

Q3.1. In a football match, an AI camera used to track the ball mistook the referee's bald head for a football. Which of the following statements is correct?

A. **There may not be bald pictures in the training data of the artificial intelligence model.**
B. This error should be solely the responsibility of the developer of the AI model.
C. The reason for this mistake must be that the camera is not high-definition enough.
D. People should not trust artificial intelligence technology.

Q3.2. What can AI do? Choose the true statement.

A. AI excels at performing well in complex environments, such as driving on crowded streets.
B. Because it is a cross-cultural topic, AI applies equally well across all countries.
C. High-stakes decisions are best left to AI because it is more neutral than humans.
D. **AI is efficient in solving problems that involve information retrieval than emotion understanding.**

Note: Check the answers at the bottom of this section.

Sources: Chiu et al. (2024); Soto-Sanfiel et al. (2025).

3.2.4 Dimension 4: Ethics and societal impact

This dimension encompasses the broader governance, moral, and societal implications of AI deployment. It shifts the focus from the individual user to the societal ecosystem. In these dimensions, a few subdimensions were mentioned in existing literature:

- **Privacy and data security**: Users must recognize the importance of protecting sensitive personal information when interacting with AI tools. They should understand the privacy risks associated with data collection, storage, and potential misuse by AI applications (Ahmad et al., 2025; Chiu et al., 2025; Görgülü et al., 2025; Kong et al., 2025).
- **Ethical principles and compliance**: AI literacy requires strict adherence to ethical norms and legal regulations. Users must navigate issues of copyright, intellectual property, and academic integrity when utilizing AI-generated materials (Huang et al., 2025; Knoth et al., 2024; Kong et al., 2025; Lee et al., 2025).
- **Accountability and transparency**: AI literate users understand that human developers, companies, and users share accountability when AI systems impact humans (Ahmad et al., 2025; Dong et al., 2025; Ng et al., 2024). They also value transparency, recognizing the need to understand the internal decision-making processes of AI products (Cai et al., 2025; Chiu et al., 2025).
- **Societal and workforce impact**: Finally, users should be able to critically reflect on how AI impacts social structures. This includes understanding the potential of AI to influence democratic processes, alter the labour market, and either mitigate or exacerbate social inequalities (Biagini et al., 2024; Delcker et al., 2025; Dong et al., 2025; Yuan et al., 2024).

Box 4: The risks of lacking ethical and societal literacy

Many people treat AI chatbots such as private notebooks or secure search engines. This happens because they lack basic security literacy: they do not realize that the AI system is actively saving the text they type to train its future models. When users misunderstand this, they often paste highly sensitive information directly into the AI to save time. For example, a 2023 cybersecurity report by Cyberhaven found that doctors were pasting patient medical files into ChatGPT to quickly write letters to insurance companies. Similarly, in the corporate world, there was news that Samsung employees accidentally leaked highly confidential source code by pasting it into ChatGPT to fix errors. To use AI safely, individuals must treat the prompt box such as a public message board. Applying security literacy means taking specific actions before typing. First, an individual must actively remove all personal names, financial numbers, and private details from their text before asking an AI to summarize it. Second, they need to know how to navigate the AI tool settings to turn off chat history so their data is not saved. If individuals do not apply these habits, they become the main cause of data breaches.

Sources: https://www.cyberhaven.com/blog/4-2-of-workers-have-pasted-company-data-into-chatgpt https://www.bloomberg.com/news/articles/2023-05-02/samsung-bans-chatgpt-and-other-generative-ai-use-by-staff-after-leak

Quiz 4: Ethical and societal impact

Q4.1. Which of the following jobs is more likely to be replaced by artificial intelligence?

A. Complex clinical procedures.
B. Development of military strategy.
C. **Simple question answers.**
D. Treating depressed patients.

Q4.2. Which one of ethical issues is least likely caused by AI if it's used inappropriately?

A. Discrimination
B. Lack of accountability
C. Lack of privacy
D. **Lack of compassion**

Sources: Chiu et al. (2024); Ding et al. (2024).

Quiz Answers: C, A, D, B, A, D, C, D

4 AI across life domains

Equipping ageing populations with the AI literacy outlined in the previous section is an important first step toward bridging the AI divide. However, to truly empower these demographics – especially women in developing regions navigating the intersection of ageism, economic barriers, geographic exclusion, and disability – this newfound literacy must be applied to their everyday realities. AI is most effective when viewed as more than just a generic tool and applied as "livelihood enablers" to empower ageing populations across specific areas of daily life such as financial wellness, lifelong learning, independent living, and health care (ITU, 2021c). Navigating this intersection involves looking beyond what the technology technically does to deeply examine the specific life domains where AI and human agency actually interact.

4.1 Moving beyond functional interventions

Historically, technological frameworks designed for ageing populations have often relied on an interventionist logic. Under this paradigm, technology is frequently positioned as an instrument used to solve predefined biological declines, viewing ageing populations through a deficit model (Peine & Neven, 2019). While functional applications provide baseline utility, they can be limited when applied to the diverse, intersectional realities of global ageing populations.

For example, older women globally frequently carry a dual burden: managing their own age-related health changes while cultural norms expect them to absorb a disproportionate share of unpaid caregiving labour for extended families (Chant, 2004). When an AI system is conceptualized purely as a biomedical intervention, it misses the opportunity to address the broader economic disparities, geographic isolation, limitations and/or disabilities, and systemic inequalities that shape daily life.

To truly leverage AI for global empowerment, the analytical paradigm benefits from shifting toward a model of co-constitution–where human systems and technology evolve together. AI applications do not simply intervene in an isolated task; they change the experience of the home, alter boundaries of privacy, and actively participate in defining what later life means. Recognizing ageing populations, especially women, as active agents who creatively repurpose and negotiate technology allows future initiatives to be designed *with* them, rather than simply *for* them.

4.2 Evolution of life domains

To understand how AI intersects with global ageing, it is helpful to recognize that life domains are not static. As societal visions of a 'good' old age evolve, so do the boundaries of these domains.

Table 2. Evolution of life domains in the context of technology

Era	Dominant paradigm of ageing	Nature of life domains	Role of technology
Industrial era (mid-20th century)	Defined by biological decline and in a natural, expected withdrawal from society (Cumming & Henry, 1961), with a rise in biomedicalization (Estes & Binney, 1989).	Confined to physical walls (e.g., the factory, the home, the clinic). Older adults were structurally removed from 'productive' public domains after retirement (Townsend, 1981).	Tools were confined to specific spaces (e.g., hospital equipment) to intervene on the failing body (Estes & Binney, 1989).
Quality of life era (late 20th century)	A shift toward successful and active ageing to redefine ageing as an active process requiring the maintenance of psychological vitality and social participation (Rowe & Kahn, 1997).	Expanded beyond physical spaces into measurable well-being categories such as psychological health and social relationships (Cummins, 1996; WHOQOL Group, 1998).	Personal computing entered the home but remained a tool that an older adult used to achieve a functional goal (Neven, 2011).
Networked era (early 21st century)	Prioritized aging-in-place to keep older adults at home (Sixsmith et al., 2014; Wiles et al., 2012). However, innovation often positioned them as passive users (Peine et al., 2014).	Rigid physical domains dissolved as the Internet allowed work, health, and leisure to flow into the home (Wellman, 2001), creating a spatial digital divide (Loges & Jung, 2001).	Telecare emerged, often prioritizing the distant, digital monitoring of older bodies over physical and socio-emotional connection (Roberts & Mort, 2009).
Socio-material era (present)	Rejects passive stereotypes, recognizing older adults as active agents who creatively adapt, resist, and repurpose technologies (Joyce & Loe, 2010; Joyce et al., 2016).	Domains are socio-material ecologies (Joyce et al., 2016). Exclusion is now structural; a lack of digital literacy can lock individuals out of essential services.	AI possesses agency as the autonomous infrastructure managing the domains (e.g., predictive AI, generative AI) (Peine & Neven, 2019).

This evolutionary perspective clarifies the broad implications of the global AI divide. Today, if an ageing woman lacks AI literacy, she is not merely missing out on a convenient digital tool; she may experience structural exclusion from the modern architecture of daily life. Therefore, the success of an AI intervention is best evaluated by how well it supports the fundamental human capabilities required to thrive within these interconnected life domains.

4.3 Reimagining life domains through AI

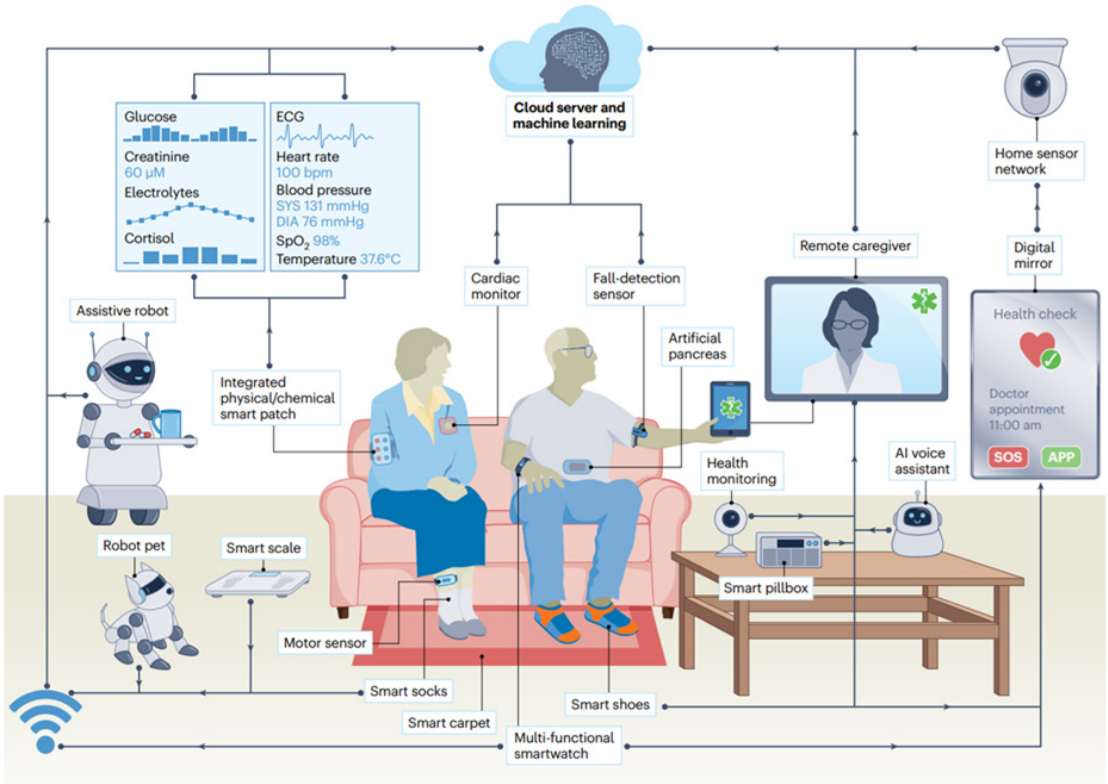
The transition into the current era invites a reimagining of life domains. Health, work, and social connection are deeply intertwined. AI has the potential to act as a continuous infrastructure connecting these traditionally fragmented areas. However, to ensure AI serves as an instrument of inclusion, stakeholders can benefit from addressing structural barriers and designing interventions tailored to these specific environments.

4.3.1 Health domain: From reactive care to proactive ecosystems

Historically, the health domain for ageing populations has been highly bio-medicalized. This model can be particularly burdensome for women globally, whose unpaid, informal caregiving labour frequently confines them to the domestic sphere, severely limiting their capacity to participate in the broader economy and build financial resilience (Chant, 2004).

- **The AI opportunity**: If deployed equitably, AI holds the potential to shift health into a proactive environment integrated into the home. Ambient technologies could monitor micro-changes in daily routines to predict health shifts before a crisis occurs (e.g., Chen et al., 2022; González-Castro et al., 2024). Voice-activated AI care assistants might provide cognitive scaffolding to help manage complex medication schedules and navigate telehealth portals (e.g., Feng et al., 2025; McCloud et al., 2022).
- **Intervention focus**: By funding the integration of intelligent infrastructure in the home, interventions can significantly reduce the overwhelming caregiving burden placed on women. This is a critical step in restoring autonomy and freeing up the time and energy women need to re-engage with economic and social domains. To realize this safely, initiatives can prioritize data agency, ensuring ageing populations are not just monitored, but hold the power to choose exactly what data they share.
- **Critical considerations**: Integrating ambient AI into the domestic sphere may introduce privacy and autonomy risks. Furthermore, if training data lacks representation from ageing populations, especially women, the resulting systems will embed ageist or sexist biases into care (WHO, 2022). Additionally, digital accessibility is a critical consideration. If the technologies are not designed with universal accessibility features, they risk excluding the very individuals they are meant to support. The interventions should ensure that the home remains a space of personal autonomy, not excessive surveillance, and that all tools are fully accessible and usable for all.

Figure 12. Examples of AI empowerment in the health domain



Source: Chen et al., 2023, p. 1627.

4.3.2 Economy domain: From forced disengagement to lifelong participation

The traditional economic domain often expects ageing adults to structurally disengage upon reaching retirement age. This exclusion is acutely felt by ageing populations, especially women in the developing regions. About 58 per cent of employed women globally work in the informal economy, with even higher rates in developing economies like South Asia and Sub-Saharan Africa (International Monetary Fund, 2021). Because these jobs typically lack pension schemes or social protection, these women frequently face severe financial insecurity. As the global economy digitizes, the existing skills gap threatens to further lock these demographics out of opportunities for wealth-building and financial independence in later life.

- **AI opportunity**: Generative AI presents a valuable opportunity to bypass these physical and systemic barriers. Rather than requiring advanced technical literacy, generative AI could act as a translator between an ageing adult's lifetime of tacit knowledge and the modern digital economy. For example, AI-driven financial management tools, language translation, and administrative automation could empower an individual transitioning from informal physical labour to successfully manage a digital micro-business (Nah et al., 2023). AI-matched platforms can also connect ageing populations, particularly women, with flexible gig work or cross-generational mentorship roles, allowing them to remain active economic contributors on their own terms (Mok, 2026).
- **Intervention focus**: Lifelong economic participation is the engine that drives overall well-being; financial independence significantly supports an individual's ability to afford proactive health care and actively participate in their community. To prevent AI from widening the economic divide, stakeholders can benefit from co-creating context-specific AI literacy programmes that meet older women where they are (Briggs et al., 2026). Developers are encouraged to prioritize inclusive UI/UX design that allows users to leverage advanced economic and financial tools safely and confidently (Hu et al., 2025).
- **Critical considerations**: If generative tools assume a baseline of advanced digital literacy, they will actively widen the economic divide. We cannot assume universal accessibility; deploying complex software without targeted onboarding will only accelerate socioeconomic displacement for marginalized women.

Figure 13. Masako Wakamiya, an 81-year-old developer, presenting her mobile application in 2017

Image Source: https://uk.news.yahoo.com/japanese-woman-81-designs-iphone-app-from-scratch-and-only-saw-her-first-computer-at-the-age-of-60-130118573.html

Note: While this achievement originally required months of overcoming steep, traditional programming barriers, generative AI now eliminates these technical hurdles by allowing ageing populations, particularly women, to code and automate tasks using only natural language.

4.3.3 Community domain: From spatial confinement to cyber-physical connections

Ageing is sometimes associated with shrinking physical mobility and subsequent social isolation (Cornwell & Waite, 2009). As critical infrastructure – including transit, digital banking, and government services – rapidly automates, ageing populations who lack AI literacy face growing barriers to accessing the civic and financial infrastructure they rely on to survive (Mubarak & Suomi, 2022; Seifert et al., 2021). This risk of civic exclusion is particularly acute for women; because they have longer life expectancies, they frequently face higher rates of living alone in later life, leaving them without a partner's support to help navigate these increasingly complex automated systems.

- **AI opportunity**: Rather than closing off the physical world, AI-driven platforms can act as critical bridges. AI-optimized accessibility tools could map physical routes in real-time for those with mobility challenges (Jnr, 2025). Voice-activated e-government and financial portals could bypass text-heavy menus, allowing ageing populations, particularly women, to independently manage their finances, vote, and access social services without needing an intermediary (Androutsopoulou et al., 2019).
- **Intervention focus**: A robust connection to the community is a powerful preventative health measure and a necessity for civic engagement. However, system architects are encouraged to be guided by the principle of augmentation, not replacement. Interventions are most impactful when they deploy AI to facilitate real-world interactions and secure access to community services, rather than relying on chatbots to simulate companionship.

- **Critical considerations**: A critical consideration in this domain is utilizing AI as a cheap substitute for genuine human connection. As governments and businesses automate public spaces to cut costs, policies are encouraged to incorporate human-in-the-loop frameworks (Natarajan et al., 2025). Relying on AI chatbots to simulate companionship or entirely replacing human customer service agents can fail to resolve the root causes of systemic isolation and disenfranchisement.

Figure 14. Age-friendly cities: eight interconnected domains of the WHO age-friendly cities framework

Source: Wang, C., Sierra Huertas, D., Rowe, J. W., Finkelstein, R., Carstensen, L. L., & Jackson, R. B. (2021). Rethinking the urban physical environment for century-long lives: from age-friendly to longevity-ready cities. Nature aging, 1(12), 1088-1095.

5 Global case studies in AI literacy interventions

Translating the theoretical dimensions of AI literacy into actionable policy requires examining real-world deployments. To evaluate how global initiatives are successfully navigating the intersection of ageing and AI, this section analyses 14 diverse global interventions. By examining these cases, stakeholders can benchmark successful strategies and identify the specific elements that drive effective, empowering programmes.

5.1 Comparative summary of global interventions

The following comparative summary evaluates them based on their strategic alignment with the core themes of this report.

Table 3. Comparative summary of global interventions

Country and initiative or project	Target demographic (age and focus)	Literacy dimensions addressed	Life domains empowered	Delivery strategy	Pedagogy strategy	Programme type scale
Australia: Be Connected	50+ (Culturally and linguistically diverse , women)	Foundational, critical	Community	Tripartite public-private partnerships via 3 800+ sites	Peer-to-peer digital mentors	Permanent, national
Brazil: USP 60+	60+	Foundational, operational, critical	Community	University-led workshops	Tangible puzzles and WhatsApp AI	Academic pilot
Germany: KoKIA	65+	Foundational, operational	Community	State-funded AI learning sites	Multiplier-led device training	Permanent, 58+ sites
Hong Kong (China): Smart Silver	65+ ("hidden" and socially isolated adults)	Foundational, operational	Community	Mobile outreach service stations	Tangible urban/ transit navigation	Targeted initiative
Ireland: Age-Friendly AI	60+	Operational, ethical/societal, critical	Community	Public library network	Co-creation and in-person hands-on workshops	National initiative
Kazakhstan: IT-Aiel	35+ (women)	Operational	Economy	Astana Hub hybrid platform	Gig-economy freelance focus	National initiative

Table 3. Comparative summary of global interventions (continued)

Country and initiative or project	Target demographic (age and focus)	Literacy dimensions addressed	Life domains empowered	Delivery strategy	Pedagogy strategy	Programme type scale
Kenya: Smart Academy	18+ (informal, rural)	Foundational, operational	Economy	10 000 Community Digital Champions	80-hour modules in local dialects	National initiative
Lithuania: No One Left Behind	55-74 (vulnerable)	Operational, critical	Health, economy	Public library network and ambassadors	Hybrid seminars and public events	National initiative
Nigeria: ArewaLadies4Tech	18+ (marginalized women)	Operational, critical	Economy, community	Female-only hubs; 2TB hard drives	Technical training, mentorship, internships	Targeted initiative
Russian Federation: Moscow Longevity	55+	Operational	Health, community	Subsidized centres + Yandex public-private partnerships	Strict 1.5-hour cognitive caps	Permanent, municipal
Saudi Arabia: SAMAI	18-65 (adult workforce)	Foundational, operational	Economy	FutureX eLearning platform	Standardized digital labour modules	National initiative
Republic of Korea: Seoul Citizens University	40-64 (middle-aged)	Operational	Economy	Municipal-corporate public-private partnership (Modu Labs)	Intensive four-week career design	Time-bound pilot
United Arab Emirates: AI for All	All Ages (SME/ adult)	Operational	Economy	Nationwide public-private partnership with Google	Free frontier generative AI access	National initiative
United States: Senior Planet / AgeTech	70-75 on average	Critical, operational	Community, economy	Direct delivery (160 sites) + startups	Living Lab B2B prototype testing	Permanent, national

5.2 Case studies by intervention type

The following subsections detail the initiatives outlined in the comparative summary, categorized by their structural scope and scale.

5.2.1 Micro-level pilots and academic workshop

These cases do not represent nationwide policies. Rather, they are highly specific, localized cohorts or time-bound workshops designed to test new pedagogical methods for lowering cognitive load and technology anxiety among ageing populations.

- **Republic of Korea: Seoul Citizens University**. The Seoul Metropolitan Government partnered with Modu Labs (https://modulabs.co.kr/), a private AI education enterprise, to prevent middle-aged adults from facing an AI divide in the labour market. Launched in late 2025, the "Creating My Future with AI" initiative bypasses foundational digital literacy, focusing strictly on advanced operational skills through a 4-week intensive course (Yonhap News, 2025). It teaches participants to use generative AI for multimedia production and how to prompt large language models (LLMs) to structure post-retirement career pathways and automate daily tasks. To manage cognitive load, classes are strictly capped at 20 participants per cohort.
- **Brazil: University of São Paulo** . Under the USP 60+ initiative, a localized academic workshop called "Artificial Intelligence: What Do You Know About It?" was launched. Developed by postgraduate gerontology researchers, the workshop launched in March 2024 to overcome the fear of technology among older adults (Cliquet & Cachioni, 2024). The pedagogy utilizes physical objects to explain abstract software; participants struggle manually with physical Tangram puzzles before using AI to find the solution. Furthermore, rather than requiring older adults to download unfamiliar applications, the course introduces LuzIA, an AI assistant integrated directly into WhatsApp, drastically lowering the cognitive barrier to entry.

Box 5: Participant experiences in the USP 60+ AI workshop

For S., a 68-year-old participant, the rapidly advancing digital landscape felt inaccessible due to the lack of a structured, contextualized introduction to AI. The workshop tailored curriculum catalysed a significant shift, which they described as "a shake-up, a spark, an awakening." This supportive environment successfully dismantled the initial shyness and fear that frequently distance older adults from emerging technologies, allowing them to engage confidently with the new digital ecosystem.

The initiative also highlighted how intergenerational connection serves as a powerful catalyst for digital adoption. R., a 70-year-old retired engineer, possessed a high level of formal education but had never directly interacted with generative AI tools. Their primary motivation for enrolling was a desire to connect with their grandson's interests and participate in a shared digital environment. By engaging with a curriculum that dynamically blended theoretical concepts with hands-on practice, R. achieved the critical autonomy required to explore AI independently, effectively bridging the generational technological divide.

These individual milestones translated into active community leadership. Transitioning from passive users to active creators, the cohort utilized generative AI to co-create a visual identity logo for their group. Furthermore, they collaborated to author a "Basic Care Guide for the Use of AI for the 60+" designed to safely onboard their peers. This outcome demonstrates that when AI education is thoughtfully contextualized, it cultivates not only operational proficiency but also proactive digital citizenship.

Box 5: Participant experiences in the USP 60+ AI workshop (continued)

Figure 15. Utilizing Tangram puzzles to introduce algorithmic thinking

Figure 16. Visual identity generated by older adults using AI during USP AI workshops

Source: *Insights and participant testimonials are drawn from personal communication with the researchers and their published work (Cliquet & Cachioni, 2024).*

5.2.2 Targeted demographic interventions

These programs sit between local pilots and national macro-policies. They are heavily structuralized but deliberately restrict their scope to solve specific divides, such as the intersection of age and gender, or severe spatial confinement.

- **Kazakhstan: IT-Aiel**. Rather than a general initiative, this is a targeted national economic intervention aimed at mitigating the motherhood penalty. The programme explicitly targets mature women aged 35 and older whose careers stalled due to maternity leave, age-based labour marginalization, or geographic isolation (https://technowomen.kz/en/it-ayel/). By teaching generative AI and No-Code tools, the programme culturally validates traditional maternal roles while modernizing them into economically productive digital skills. Since 2023, around 21 000 women have successfully completed the training. Alina Abdrakhmanova, Managing Director of Astana Hub, summarized its unexpected success: "*When we first conceived this project, we couldn't even imagine the scale of its impact and the results it would achieve*" (Assaniyaz, 2024).
- **Nigeria: ArewaLadies4Tech**. To overcome the gender divide and infrastructural deficits, including unstable electricity and prohibitive Internet data costs, Data Science Nigeria (DSN) utilizes an offline-first empowerment model (https://datasciencenigeria.org/our-platforms/). The programme explicitly decouples AI education from constant Internet access by distributing 2-Terabyte external hard drives pre-loaded with over 17 000 educational videos. The Arewa Ladies4Tech initiative specifically targets Northern Nigeria, working with local leaders to provide safe, female-centric learning environments to empower over 5 200 women (https://datasciencenigeria.org/arewa/; Data Science Nigeria, 2024).
- **Hong Kong (China): Smart Silver**. Targeting "hidden" older adults (socially isolated) and institutionalized older adults who suffer from spatial confinement, this initiative deploys mobile outreach service stations directly into high-density neighbourhoods to overcome deep-seated technological anxiety (https://www.digitalpolicy.gov.hk/en/our_work/digital_government/digital_inclusion). The programme teaches smart city navigation that prepares older adults for future infrastructure by familiarizing them with self-driving cars, transit apps, and smart robotics. By bringing the technology directly to the user, the programme builds immediate confidence, as evidenced by participant Mrs. Chung: "*I can search for the route and the waiting time... I can start walking to the stop when the bus is about to arrive*" (Information Services Department, 2025, Hong Kong (China)).

Figure 17. IT-Aiel demo day

Source: https://technowomen.kz/en/it-aiel-demo-day-2/

Figure 18. Older adults' participation in Smart Silver

Source: https://www.info.gov.hk/gia/general/202505/06/P2025050600482.htm

Box 6: Participant experiences in Nigeria's ArewaLadies4Tech initiative

For N., a mother from Northern Nigeria, who despite being a computer science graduate, found the path forward overwhelming. She lacked the direction and confidence to rebuild her life after a divorce – a situation reflecting broader challenges for women seeking career mobility. This changed when she enrolled in the ArewaLadies4Tech programme.

During the intensive three-month training, she mastered data analysis, AI solutions, SQL, and Power BI. The programme was a turning point; it gave her the confidence to participate in hackathons (where her team placed third) and secured her an internship that transitioned into a role as a project assistant. "It made me realize that my background or challenges do not define my future," she reflects.

The impact of ArewaLadies4Tech extends across a variety of professional domains. N. B. D., a pharmacist, utilized the programme to upskill as a researcher. Her newfound data analytics capabilities allowed her to contribute to a nationwide rangeland management and climate resilience project in Namibia, track avian influenza in Kaduna State, and outperform existing consultants by gathering critical data on early warning systems in Kenya. Similarly, K., a journalist and mother of five, leveraged the training to enhance her data journalism skills, creating compelling data stories to improve organizational decision-making.

Box 6: Participant experiences in Nigeria's ArewaLadies4Tech initiative (continued)

This empowerment provides crucial pathways for women facing career interruptions or seeking to pivot. H., whose career was paused due to a severe health condition, utilized the program to regain her professional purpose; her training secured an internship that transitioned into a role as a Partnership Manager. For others, like H. O. I., a background in communication translated into a technology internship focused on climate solutions and community development, while Z., a volunteer teacher, leveraged the mentorship element of the programme to transition into the technology ecosystem with an education services firm.

ArewaLadies4Tech proves that when technology education is tailored to overcome specific regional barriers, it does more than impart technical skills – it restores autonomy and integrates women as active, leading contributors to the digital economy.

Figure 19. Hands-on AI and data science training in ArewaLadies4Tech

Source: *Insights and participant testimonials are drawn from personal communication with the ArewaLadies4Tech Team and internal project profiles provided by Data Science Nigeria.*

5.2.3 Permanent infrastructure and macro-scale rollouts

These interventions represent long-term, heavily funded government policies designed to alter the national digital ecosystem. Their primary innovation lies in delivery, scale, and public-private integration.

- **Lithuania: No One Left Behind**. Led by the Communications Regulatory Authority (RRT), this national initiative targets the reality that only 23 per cent of Lithuanians aged from 55 to 74 possess basic digital skills (https://digital-skills-jobs.europa.eu/en/impact-shapers/good-practices/no-one-left-behind-lithuania). The project aims to reduce the number of 55 to 74-year-olds without basic digital skills by 30 per cent by 2027 and train 176 000 older adults with topics range from digital banking and health care services to AI in everyday life. Rather than centralizing training, the State utilizes a national network of public libraries and municipalities, developing a network of over 208 digital ambassadors. This decentralized infrastructure culminated in the 2025 Digital Wave event, successfully engaging 80 000 participants both online and in-person.

- **Australia: Be Connected**. Launched in 2017, this programme utilizes a tripartite delivery model separating funding, curriculum design, and community distribution (https://www.dss.gov.au/improving-digital-skills-older-australians). Training is delivered through over 3 800 trusted access points, structuralizing peer-to-peer learning through a Young Mentors initiative (https://beconnected.esafety.gov.au/young-mentors). The curriculum places a heavy emphasis on AI-enabled security risks, explicitly training older Australians to identify deepfake voice and video fraud. Since its launch, the programme has scaled to support over 2 million learners. Jess Wilson, CEO of Good Things Foundation Australia, defines the mission clearly: "*This programme is not just about technology, but helping over 50s to participate in society today. With the emergence of new technologies like AI... we need to make sure that everyone has essential digital skills so they don't get left behind*" (eSafety Commissioner, 2024).
- **Ireland: Age-Friendly AI**. Funded by Research Ireland and co-led by TU Dublin and the ADAPT Centre, this initiative successfully transitioned from a co-creation pilot into Ireland's national AI literacy initiative (https://agefriendlyai.ie/). Following a year-long public dialogue phase in 2025 that utilized deliberative Citizens' Think-Ins to understand older adults' concerns, the programme launched a macro-scale national rollout in 2026. Rather than centralizing the training, the initiative integrates directly into existing public infrastructure by partnering with Libraries Ireland under their national adult learning initiative, 'Skills for Life.' This decentralized model delivers hands-on, community-based workshops across the country, providing older adults with a supportive, highly localized environment to critically engage with AI tools and build operational confidence at their own pace.
- **United States: AARP Senior Planet programme and AgeTech Collaborative**. This dual-approach system addresses both the demand and supply sides of the digital divide simultaneously. On the demand side, Senior Planet (Older Adults Technology Services (OATS)) manages the direct delivery of free, multi-modal AI literacy training via 160 physical locations (partner sites), empowering older adults to utilize commercial AI tools independently, resulting in over 600 000 engagements in 2024 (https://oats.org/senior-planet-from-aarp/). On the supply side, the AgeTech Collaborative incubates B2B startups building the next generation of AI. By placing these startups into Living Labs (real-world senior living facilities), older adults are transformed from passive consumers into active critics, testing AI prototypes before they go to market (https://agetechcollaborative.org/).
- **Germany: KoKIA Network**. Following a successful pilot project "KI für ein gutes Altern" (AI for a Good Aging) (2023–2025), Germany launched the AI and Aging Competence Network (KoKIA) in February 2026 to transition from temporary workshops to permanent federal infrastructure (https://www.bagso.de/projekte/kokia-kompetenznetzwerk-ki-alter/). The core innovation here is the use of local 'multipliers' (Multiplikatorinnen und Multiplikatoren), which are trusted community leaders operating within existing senior Internet initiatives and multi-generational houses. By training these multipliers or gatekeepers, the State ensures that standardized AI curricula can be seamlessly delivered in highly localized, psychologically safe environments, bridging the geographic divide between urban technology centres and rural ageing populations.
- **Russian Federation: Moscow Longevity project digital workshops**. Launched in March 2026 as a joint venture with domestic technology giant Yandex, this specialized municipal intervention exclusively teaches engineering to adults aged 55 and above (Martynova, 2025). What makes this project unique is its careful attention to cognitive-load management. The core AI curriculum is a concentrated micro-course comprising exactly four sessions, each lasting precisely 1.5 hours and held only once a week to prevent cognitive fatigue. Within this framework, older adults learn, for example, to generate custom instructions for AI to autonomously compile dietary menus, map safe walking routes, and animate old family photographs (CNews, 2026).

Box 7: Participant experiences in Lithuania's No One Left Behind initiative

For many older adults, navigating the digital world requires more than technical instruction; it requires a safe environment to build emotional resilience. The No One Left Behind initiative in Lithuania provides this by hosting training sessions in cozy, familiar spaces like the Vilnius Old Town Public Library. The practical impact of this supportive environment is clearly illustrated by the experience of A., a 75-year-old participant.

A. had been diligently attending the library sessions for over six months, learning key rules for safe online behaviour, including how to recognize fraud schemes and protect personal data. However, digital literacy is heavily tested when emotions become involved. A. had begun communicating online with a man claiming to be a Lithuanian doctor working in a distant country. His messages included romantic declarations and promises to return to Lithuania but were accompanied by constant requests for financial help and money transfers for his journey.

Trusting the community she built at the initiative, A. brought the situation – and a photo of the 'doctor' – to her training session for advice. The project coordinator noticed immediate signs of a scam, such as grammatical errors. Rather than simply dismissing the relationship, the programme used it as an opportunity for practical application. The coordinator guided A. through performing a reverse image search using the Google Lens application. The results revealed that the photo belonged to a completely different person with a different name, proving the 'doctor' was using a stolen identity.

A.'s experience highlights the core value of the initiative. By pairing technical tools – like using AI-powered image searches to verify information – with a compassionate community space where older adults feel safe asking questions, the programme successfully helps participants avoid painful mistakes and remain independent in their daily lives.

Source: *Insights and participant testimonials in this section are drawn from personal communication with the "No One Left Behind" project team.*

Box 7: Participant experiences in Lithuania's No One Left Behind initiative (continued)

Figure 20. Students and coordinators in the No One Left Behind initiative

Source: *No One Left Behind initiative team.*

Figure 21. No One Left Behind coordinator and students

Source: *No One Left Behind initiative team.*

Box 8: Participant experiences in Ireland's Age-Friendly AI initiative

The rapid rise of AI is increasingly viewed as an opportunity to engage, rather than a reason to hide. As Sheila, a participant from North Dublin, stated: "Everybody is talking about AI at the moment – and why not have older people in on the game? I'm marching along with it, I'm listening, and I want to learn." Another participant echoed this urgency, noting that as they age, AI "is something that we really need to be equipped for."

The initiative's public dialogue phase revealed that participants are driven by a mix of practical curiosities and critical concerns. While some attended specifically to explore how everyday devices like smart speakers could "make my life easier," others recognized an urgent need "to develop critical awareness in relation to all Internet content, especially when dealing with AI." A recurring theme was the desire to understand the legalities around it and how to safely navigate the spread of online misinformation.

Crucially, the dialogues highlighted how this demographic prefers to build their AI literacy. "People are missing the personal touch of receiving information," one attendee expressed, advocating strongly for face-to-face instruction over isolated online tutorials to gently bring them on their AI journey. Participants reported attending not only to learn but to actively "get myself out of my comfort zone."

By replacing intimidating jargon with welcoming, localized environments, the initiative successfully transforms apprehension into empowerment. As one participant from a Men's Shed in County Meath shared, "I walked in thinking AI was something for scientists. I'm walking out realizing I've been using it for years. It feels much less intimidating now." The initiative champions a vital message summarized by an attendee in Limerick: "It's a right of age that we are able to navigate artificial intelligence with competency."

Figure 22. Participants at the first Age-Friendly AI literacy co-creation workshop in March 2025

Source: *Insights and participant testimonials are drawn from internal project reports provided by the Age-Friendly AI initiative and public workshop video documentation (*https://www.youtube.com/watch?v=K3WfmaZenRg*).*

In regions with younger populations, specialized policies for older adults are rare. Instead, older adults are empowered through massive, all-age infrastructure designed to digitize the general workforce and informal sectors.

- **Kenya: Smart Academy.** Operating under the Kenya National Digital Master Plan, the ICTA recognizes that AI empowerment cannot be limited to corporate urban centres. To reach marginalized counties, the government relies on internationally funded NGOs to deploy a massive workforce of 10 000 Community Digital Champions (CDCs) (https://www.smartacademy.go.ke/). These CDCs are tasked with delivering advanced 80-hour modules on AI and data analytics using the specific indigenous dialects of their assigned counties. This ensures that workers in the informal sector, such as rural farmers and gig workers, are culturally and linguistically integrated into the future digital economy.
- **Saudi Arabia: SAMAI initiative.** As a region with a rapidly digitizing economy, Saudi Arabia focuses on massive, workforce-wide integration. The SAMAI (One Million Saudis in AI) initiative relies on the FutureX eLearning platform, utilizing a top-down tripartite ministerial structure to deploy standardized AI modules (CDO Magazine, 2025). Aiming to reach 1.1 million certified individuals by February 2026, the Minister of Education, Yousef Al-Bunyan, identified the scale of the programme as a vital model of national integration designed to align human capital with the Vision 2030 economic mandates (CDO Magazine, 2025).
- **United Arab Emirates: AI for All.** Rather than focusing on age-specific pedagogical training, the United Arab Emirates treats AI access as a universal utility. The State established a nationwide public-private partnership with Google to bypass application barriers entirely, providing universal, free access to frontier generative AI models (Gemini) across all emirates (Nakache, 2025). Anthony Nakache of Google MENA encapsulated this structural strategy, emphasizing that "AI's benefits must be accessible to all", ensuring that older adults and SMEs are swept up in the broader technological advancement of the State (Nakache, 2025; Zawya, 2025).

Figure 23. Young.Old.Digital. event under the KI für ein gutes Altern project

Source: https://ki-und-alter.de/jung-alt-digital-am-digitaltag-in-osnabrueck/

Figure 24. Local participants received smart academy certifications

Source: https://www.kictanet.or.ke/marsabit-youth-empowered-through-digital-skills-and-ai-literacy/

5.3 Key takeaways and gaps in global interventions

A cross-case analysis of these 14 global interventions reveals a clear maturation in how stakeholders approach the AI divide. It highlights core strategic successes, while also exposing systemic blind spots that present opportunities for future funders to design more sustainable programmes.

5.3.1 Key takeaways

- **Decentralized delivery**: Effective programmes do not require ageing populations to seek out unfamiliar technological centres; they bring the technology to where this demographic group already feels psychologically safe. By leveraging existing analogue infrastructure such as Lithuania's public library network, Germany's multi-generational houses, or mobile neighbourhood stations in Hong Kong (China), States bypass both physical spatial confinement and technological anxiety. Furthermore, Nigeria's offline-first hard drive distribution shows that advanced operational AI literacy can be supported even in regions that completely lack any broadband infrastructure.
- **Economic relevance and the gendered penalty**: Historically, digital literacy for ageing populations was framed around leisure or social connection. The current wave of successful AI interventions explicitly targets the intersectional economic vulnerabilities of older women. Programmes like Kazakhstan's IT-Aiel and Nigeria's ArewaLadies4Tech address how careers often stall due to maternity leave, unpaid caregiving burdens, and age-based marginalization in informal labour. These programmes treat ageing populations, especially women, as an active economic force rather than passive welfare recipients, which significantly accelerates technology adoption.
- **Tangible pedagogy**: Effective academic and municipal pilots lower cognitive load by making the AI learning tangible. The use of physical Tangram puzzles in Brazil to introduce algorithmic thinking, and the strict limitation of classes to 1.5-hour micro-sessions in the Russian Federation, demonstrate that successful AI empowerment benefits from specialized, age-adaptive pedagogical design, not just access to software.

5.3.2 Key gaps

- **Moving from participation to proficiency**: Many macro-scale interventions measure success through participation metrics (e.g., attendees or certificates issued). There is an opportunity to implement longitudinal assessment frameworks to determine if an individual retains the ability to utilize AI safely long after the workshop concludes, ensuring lasting capability rather than temporary engagement.
- **Focusing on specific population groups**: A common challenge is treating the ageing population demographic as a monolithic entity. When policies do not segment these populations, they risk deploying one-size-fits-all curricula that can be simultaneously limited for the younger workforce and cognitively overwhelming for older age brackets. Tailored pathways are highly recommended.
- **Addressing the universal delivery challenge**: In regions deploying universal macro-infrastructure to upskill the entire workforce, the curriculum is often paced for the median user (typically a younger digital native). Without age-adaptive pathways, these standardized structures can inadvertently exclude ageing populations, particularly women, highlighting the need for supplementary, demographic-specific support within universal rollouts.

6 Actionable recommendations for global stakeholders

The insights gathered across global interventions point to a clear reality: the deployment of AI extends far beyond the introduction of novel chatbots or minor daily conveniences. AI is fundamentally altering social participation, career trajectories, independence, and autonomy across the life course. Without proactive strategies, the AI era risks deepening the marginalization driven by the digital divide, particularly for ageing populations and women in developing regions who navigate the intersecting forces of ageism, gender disparities, and geographic exclusion.

To harness AI to empower ageing populations and ensure that ageing populations, particularly women, are active participants in shaping these tools rather than simply reacting to them, the following recommendations offer strategic pathways for key global stakeholders.

6.1 Public-private partnerships (PPPs)

The financial and technical resources required to build robust AI ecosystems rarely exist solely within the public sector. Collaborative models are essential for sustainable scale.

- **Merge State reach with corporate infrastructure**: To effectively scale AI empowerment, nations can explore models where the government provides administrative trust and outreach networks, while private technology companies supply the curriculum and platform access (e.g., AI for All initiative in partnership with Google in the United Arab Emirates, or the Moscow Longevity collaboration with Yandex in the Russian Federation).
- **Fund AgeTech innovation ecosystems**: Corporate enterprises and venture capital have a unique opportunity to partner with aging-focused nonprofits to accelerate startups designing bespoke solutions. Initiatives such as the AgeTech Collaborative from AARP demonstrate that providing startups with real-world testing environments in senior living facilities helps ensure that final AI products are both effective and culturally competent.
- **Mandate gender-inclusive design and delivery**: Because ageing populations, particularly women, frequently manage dual caregiving burdens and face higher risks of digital exclusion due to informal labour, PPPs must explicitly design programmes around these realities. Governments and corporate funders can achieve this by tying investment directly to flexible, asynchronous learning models or offline-first platforms (such as the initiatives in Kazakhstan and Nigeria). This targeted approach ensures that women can upskill and access the digital economy without disrupting their existing household and community responsibilities.

6.2 Civil society and NGOs

Older women frequently carry a dual burden of managing their own health transitions while absorbing a disproportionate share of unpaid caregiving labour, restricting their time to access traditional technology education.

- **Provide flexible, asynchronous learning**: To overcome mobility and time constraints, NGOs can offer remote-first or asynchronous learning options. Kazakhstan's IT-Aiel initiative serves as a prime model, allowing women to upskill digitally from home, thereby mitigating geographic isolation and household burdens.
- **Leverage academic institutions**: Academia plays a major role in developing innovative, accessible ICT solutions and has the influence to educate future developers to prioritize inclusive design (ITU, 2021c).

- **Utilize high-trust local nodes and intergenerational dialogue**: AI literacy is most effectively delivered through familiar, low-stress environments. Organizations can train local multipliers or gatekeepers – such as public librarians in Ireland or younger students in Australia – to bridge the trust gap, stimulating intergenerational dialogue and peer-to-peer learning (ITU, 2021c).
- **Build digital defence**: Programmes can build trust by empowering ageing populations, particularly women, with the tools and confidence to navigate AI safely by addressing concerns regarding AI scams, deepfakes, and data privacy. Curricula should prioritize digital defence alongside operational skills, ensuring users understand how to protect their financial and personal data, transforming technology anxiety into informed resilience.

6.3 Businesses and technology developers

To capture the full economic potential of the longevity economy, the technology sector is encouraged to move beyond optimizing models exclusively for younger, digital-native demographics.

- **Audit datasets for age and gender representation**: Developers can actively include ageing adults, specifically women, in their training datasets and participatory design processes (WHO, 2022). Broader inclusion helps prevent predictive models from registering age-related deviations as system errors or embedding systemic biases.
- **Focus on high-value life domains**: Rather than prioritizing generic applications, businesses can build affordable, inclusive AI solutions explicitly targeted at empowering core life domains: proactive health, lifelong economic agency, and community participation.
- **Lower the cognitive barrier to entry**: Interface design should utilize familiar environments. Integrating AI into platforms that ageing populations already trust – such as integration of the LuzIA assistant directly into WhatsApp in Brazil – significantly reduces technological anxiety. This also adheres to accessibility guidelines by ITU to account for age-related cognitive and sensory conditions (ITU, 2025a).
- **Run awareness campaigns**: To build an environment of trust in the digital world, private sector developers should actively partner with stakeholders to run clear, accessible awareness campaigns on privacy and security issues (ITU, 2021c).

6.4 Governments and policy-makers

Because the ageing population is not a monolithic demographic, there is no one-size-fits-all policy solution. Policy-makers are encouraged to adopt evidence-based pathways tailored to their specific macroeconomic realities.

- **Deploy context-specific infrastructure models**: Policy-makers can align AI literacy programmes with baseline digital readiness. In emerging economies facing high data costs, governments can adopt offline-first models, similar to Nigeria's deployment of hard drives. Across all contexts, governments must revise existing ICT policies and legislation to explicitly promote ICT appropriation by ageing populations, including amending universal access and service funds to make accessibility a primary goal (ITU, 2025a).
- **Protect career trajectories for ageing populations**: AI dictates labour market survival. Governments can support AI upskilling for middle-aged and ageing populations – particularly women – to prevent sudden workforce displacement. Programmes mirroring the Republic of Korea's initiative to teach generative AI to middle-aged workers are vital for maintaining economic competitiveness and financial independence.

- **Decentralize AI access**: Because global AI infrastructure is heavily concentrated in developed regions, while explosive ageing occurs in developing regions, policy-makers in developing nations must explore strategic partnerships to facilitate access to frontier models, ensuring the financial cost of the technology does not create an insurmountable divide.

6.5 Ageing populations and women

Empowerment is not a passive process; interventions are most successful when they position ageing populations and women as collaborative participants in an ongoing learning journey. Future initiatives should be designed to encourage ageing populations, particularly women, to:

- **Start with high-trust, low-risk tools**: Begin exploring AI through highly familiar platforms, such as voice-assisted smartphone features or translation tools, before transitioning to complex generative models.
- **Practice active digital defence**: Approach AI-generated content with informed awareness, prioritizing the ability to identify deepfakes, protect personal financial data, and verify information through trusted official sources.
- **Engage in peer-to-peer learning**: Technology is often best navigated as a community. Programmes should create spaces for ageing populations to share their digital experiences, discoveries, and concerns with peers and local community groups to build collective digital resilience.

Looking forward

The rapid integration of AI is not merely a technological shift; it is a critical juncture for the global economy. If left unmanaged, the AI divide risks accelerating the financial exclusion of ageing populations, especially women. However, with targeted investment, AI becomes a powerful engine for lifelong participation and financial resilience. By championing inclusive design and funding targeted capacity building, stakeholders have the opportunity to transform this demographic from vulnerable bystanders into active drivers of the digital economy – ultimately building a more equitable and better-working world for all.

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Office of the Director
International Telecommunication Union (ITU)
Telecommunication Development Bureau (BDT)
Place des Nations
CH-1211 Geneva 20
Switzerland

Email: bdtdirector@itu.int
Tel.: +41 22 730 5035/5435

Office of the Deputy Director
Operations Coordination Department (DDR)
Place des Nations
CH-1211 Geneva 20
Switzerland

Email: bdtdeputydir@itu.int
Tel.: +41 22 730 5131

Digital Networks and Environment Department (DNE)
Email: bdt-dne@itu.int
Tel.: +41 22 730 5421

Digital Knowledge Society Department (DKS)
Email: bdt-dks@itu.int
Tel.: +41 22 730 5900

Projects, Partnerships and Digital Skills Department (PPS)
Email: bdt-pps@itu.int
Tel.: +41 22 730 5447

Africa

Ethiopia

International Telecommunication Union (ITU) Regional Office
Gambia Road
Leghar Ethio Telecom Bldg. 3rd floor
P.O. Box 60 005
Addis Ababa
Ethiopia

Email: itu-ro-africa@itu.int
Tel.: +251 11 551 4977
Tel.: +251 11 551 4855
Tel.: +251 11 551 8328
Fax: +251 11 551 7299

Cameroon

Union internationale des télécommunications (UIT)
Bureau de zone
Immeuble CAMPOST, 3e étage
Boulevard du 20 mai
Boîte postale 11017
Yaoundé
Cameroon

Email: itu-yaounde@itu.int
Tel.: + 237 22 22 9292
Tel.: + 237 22 22 9291
Fax: + 237 22 22 9297

Senegal

Union internationale des télécommunications (UIT)
Bureau de zone
8, Route du Méridien Président
Immeuble Rokhaya, 3e étage
Boîte postale 29471
Dakar - Yoff
Senegal

Email: itu-dakar@itu.int
Tel.: +221 33 859 7010
Tel.: +221 33 859 7021
Fax: +221 33 868 6386

Zimbabwe

International Telecommunication Union (ITU) Area Office
USAF POTRAZ Building
877 Endeavour Crescent
Mount Pleasant Business Park
Harare
Zimbabwe

Email: itu-harare@itu.int
Tel.: +263 242 369015
Tel.: +263 242 369016

Americas

Brazil

União Internacional de Telecomunicações (UIT)
Escritório Regional
SAUS Quadra 6 Ed. Luis Eduardo Magalhães,
Bloco "E", 10º andar, Ala Sul (Anatel)
CEP 70070-940 Brasilia - DF
Brazil

Email: itubrasilia@itu.int
Tel.: +55 61 2312 2730-1
Tel.: +55 61 2312 2733-5
Fax: +55 61 2312 2738

Barbados

International Telecommunication Union (ITU) Area Office
United Nations House
Marine Gardens
Hastings, Christ Church
P.O. Box 1047
Bridgetown
Barbados

Email: itubridgetown@itu.int
Tel.: +1 246 431 0343
Fax: +1 246 437 7403

Chile

Unión Internacional de Telecomunicaciones (UIT)
Oficina de Representación de Área
Merced 753, Piso 4
Santiago de Chile
Chile

Email: itusantiago@itu.int
Tel.: +56 2 632 6134/6147
Fax: +56 2 632 6154

Honduras

Unión Internacional de Telecomunicaciones (UIT)
Oficina de Representación de Área
Colonia Altos de Miramontes
Calle principal, Edificio No. 1583
Frente a Santos y Cía
Apartado Postal 976
Tegucigalpa
Honduras

Email: itutegucigalpa@itu.int
Tel.: +504 2235 5470
Fax: +504 2235 5471

Arab States

Egypt

International Telecommunication Union (ITU) Regional Office
Smart Village, Building B 147,
3rd floor
Km 28 Cairo
Alexandria Desert Road
Giza Governorate
Cairo
Egypt

Email: itu-ro-arabstates@itu.int
Tel.: +202 3537 1777
Fax: +202 3537 1888

Asia-Pacific

Thailand

International Telecommunication Union (ITU) Regional Office
4th floor NBTC Region 1 Building
101 Chaengwattana Road
Laksi,
Bangkok 10210,
Thailand

Email: itu-ro-asiapacific@itu.int
Tel.: +66 2 575 0055

Indonesia

International Telecommunication Union (ITU) Area Office
Gedung Sapta Pesona
13th floor
Jalan Medan Merdeka Barat No. 17
Jakarta 10110
Indonesia

Email: bdt-ao-jakarta@itu.int
Tel.: +62 21 380 2322

India

International Telecommunication Union (ITU) Area Office and Innovation Centre
C-DOT Campus
Mandi Road
Chhatarpur, Mehrauli
New Delhi 110030
India

Email:
Area Office: itu-ao-southasia@itu.int
Innovation Centre: itu-ic-southasia@itu.int
Website: ITU Innovation Centre in New Delhi, India

CIS

Russian Federation

International Telecommunication Union (ITU) Regional Office
4, Building 1
Sergiy Radonezhsky Str.
Moscow 105120
Russian Federation
Email: itu-ro-cis@itu.int
Tel.: +7 495 926 6070

Europe

Switzerland

International Telecommunication Union (ITU) Office for Europe
Place des Nations
CH-1211 Geneva 20
Switzerland

Email: eurregion@itu.int
Tel.: +41 22 730 5467

International Telecommunication Union
Telecommunication Development Bureau
Place des Nations
CH-1211 Geneva 20
Switzerland

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