





















The Right to Science and Access to **Technologies for Older Persons**









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ROUNDTABLE SERIES

MAINSTREAMING KNOWLEDGE ON AGEING

Bridging paths towards strengthening protection and participation

With the support of:

















This document has been prepared by the **Division for People and Social Development at UNITAR**, Ms. Analucía Jácome, Senior Project Leader and Human Rights Expert, Ms. Zhuoqing Cao and Ms. Sara Louedi, SDP Team.

We hope you enjoy it!



MODERATOR

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SPEAKERS

Focus: Advancing Digital Inclusion for Older Persons through Age-Friendly ICTs



Dr. Loly GaitanProgramme Officer, International Telecommunication Union (ITU)

"The right to science and technology is not an abstract principle.

It's all about dignity, participation, and equal opportunity,
ensuring that older persons who have a growing share of our
societies are not left behind in this rapidly evolving digital world."

- Older persons face distinct challenges in accessing digital technologies, often linked with age, disabilities, and isolation. Addressing these barriers requires effective policies, strategies, and programmes that ensure meaningful digital inclusion.
- 2 ITU works to guarantee that all individuals, regardless of age, gender, disability, or other circumstances, can access and utilise digital technologies. Its efforts for older persons focus on three main priorities: accessibility, affordability, and relevance and skills.
- Accessibility involves designing technologies with older persons in mind, integrating user-friendly interfaces and compatibility with assistive tools such as hearing aids and screen readers. Affordability ensures devices and connectivity are economically accessible. Relevance and skills emphasize tailored training and lifelong learning, enabling older persons to navigate digital tools confidently. ITU develops international standards to embed these principles into Information and Communication Technology (ICT) design.
- For capacity building, ITU has issued guidelines for age-friendly digital products and services. It published its first major report on aging and ICTs, "Aging in the Digital World: From Vulnerable to Valuable". In addition, ITU offers self-paced courses, such as "ICTs for Better Aging and Livelihood in the Digital Landscape", available in multiple languages. Its technical work through standardization activities has promoted recommendations on accessibility requirements, including font size, contrast, and voice guidance.
- For partnerships, collaboration underpins ITU's work, involving governments, industry, civil society, academia, and UN partners such as the World Health Organization. Current projects include research on artificial intelligence and aging in the Asia-Pacific region.
- While progress through partnerships is evident, challenges remain. Fostering intergenerational approaches strengthens solidarity and connects younger and older generations, building inclusive and digitally empowered societies.

HIGHLIGHTS ON THE WORK OF ITU

ITU is fully committed to contributing to the success of the UN Decade on Healthy Ageing, by raising awareness, developing guidelines on policies and strategy advice, sharing good practices, and strengthening capacity to ITU members on how to use the ICTs to develop innovative solutions that have economic and social benefits and thus, help them to turn this challenge into a great opportunity.

Over 75 ITU-D tools and resources are available to support ITU members and stakeholders' efforts in implementation process to achieve digital inclusion of all people at national, regional and global levels.



























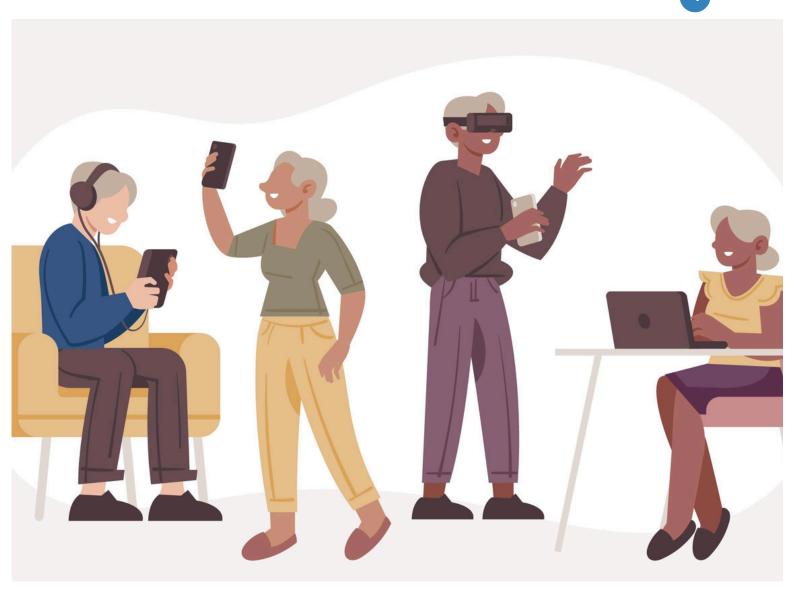












REMEMBER

In many countries, older persons already represent a significant and growing proportion of the population. Yet they remain at high risk of digital exclusion, limiting their ability to fully participate in digital societies, economies, and environments. Barriers include the affordability of devices and services, the lack of age-friendly ICT design, limited opportunities for digital literacy, and concerns about online safety. These obstacles continue to prevent many older persons from fully benefiting from digital transformation.

IMPORTANT FIGURES

By 2050, the world population is estimated to reach 9 billion, with one in six people globally over the age of 65. Approximately two-thirds of the global population will need Accessible ICTs to participate in digital societies, economics and environments.

- ITU Report: "Ageing in a Digital World From Vulnerable to Valuable", available in English, Arabic, Chinese, Spanish, French, Russian | <u>Link</u>
- ITU Self-Paced Online Course: "ICTs for Better Ageing and Livelihood in the Digital Landscape", available in English, Spanish, French | <u>Link</u>
- Learn more about ITU's resources on ICT/digital accessibility | <u>Link</u>



































Focus: Bridging the Digital Divide in Ageing Through the Private Sector



Ms. Yiren ZhouProgramme Manager of the Elderly Care Programme "Blue Vest Initiative",
Sustainability Department, Ant Group

"We believe that assisting older persons today is akin to supporting future versions of ourselves."

- China, home to the largest population of older persons aged 60 and above, is also one of the most digitally advanced countries, where mobile payments, online services, and smart technologies are ubiquitous. Amid this unique intersection of rapid digitalization and an ageing population, older persons in China remain at risk of digital exclusion.
- The Blue Vest Initiative, launched by Ant Group in September 2020 in collaboration with diverse sectors of society, is a community-based volunteer programme providing digital literacy support and empowerment for older persons. It seeks to bridge the digital divide, raise awareness about fraud prevention and healthy living, and enhance the well-being of older persons. This initiative applies three core principles to address the digital divide.
- Firstly, accessibility and usability. Product teams are engaged to develop agefriendly modes in apps, including larger fonts, simplified functions, and Alpowered healthcare applications offering health consultation and appointment scheduling.
- 4 Secondly, education and capacity building. Volunteers are trained not only in digital skills but also in empathy and patience towards older persons. Volunteers come from all walks of life and provide tailored assistance with local dialects and short instructional videos, building on both digital literacy and digital confidence. A communication platform is established to allow volunteers to share their experiences and good practices.
- 5 Thirdly, dignity and social inclusion. Older persons are empowered to perform daily activities independently, while the silver-age volunteer team promotes peer learning and opportunities to showcase their capabilities. This not only strengthens older persons' social engagement but also reduces social exclusion and alleviates loneliness.
- 6 Overall, upholding the right to technology requires both inclusive technology design and community support. Let us commit not just to creating technology, but also creating a support system that ensures everyone, regardless of age, can claim their right to science and build a digital world that is not only smart but also inclusive and kind.

HIGHLIGHTS ON THE BLUE VEST INITIATIVE OF ANT GROUP

The Blue Vest Initiative is a social-good project launched in 2020 by Ant Group to help older persons overcome the digital divide. By combining technology with personalized support, it empowers older persons with essential digital skills, fraud prevention knowledge, and access to health information, boosting their confidence, independence, and quality of life.

Leveraging Ant Group's technological expertise, the initiative simplifies everyday digital tools in areas like communication, mobile payments, and healthcare. At the same time, it brings people together through a growing network of volunteers who offer patient, face-to-face guidance. This human-centred approach helps older adults not only adapt to the digital world but thrive in it.







































INTERESTING PRACTICE

The Blue Vest Initiative exemplifies a human-centred network dedicated to digital inclusion for older persons. Volunteers from all walks of life operate across urban and rural areas, offering nonprofit educational outreach and personalised support directly to older persons. These volunteers include professional social workers, students, retirees, lawyers, police officers, tech experts, and so on. They assist older persons with essential tasks such as health management, communication with family, and electronic payments. A silver-age volunteer team has also been established, encouraging older persons to learn digital skills from each other, and creating opportunities for them to showcase their capacities.

Beyond teaching technology, the initiative fosters a sense of participation and accomplishment for older persons, ensuring they are not left behind. Ultimately, it highlights that supporting older persons in the digital world today is an investment in building inclusive, empowered communities for the future.

DID YOU KNOW?

According to the National Bureau of Statistics of China, over 310 million people in China were aged 60 and above as of 2024, representing a significant and growing demographic. Despite living in one of the most digitally advanced societies, many older persons face barriers to accessing and effectively using technology. Challenges include limited digital literacy, concerns about online fraud, and the lack of age-friendly design in digital platforms. More importantly, digital exclusion not only reduces access to essential services but also increases social isolation and limits participation in economic and social activities.

- The State Council of the People's Republic of China, "China Accelerates Elderly Care Reforms As Population Ages" | Link
- WHO, Ageing and Health in China | Link
- Learn more about Ant Group's Blue Vest Initiative | Link



































Focus: Digital Inclusive Design for Older Persons with Disabilities



Dr. Jutta TreviranusDirector of the Inclusive Design Research Centre,
Ontario College of Art and Design (OCAD) University

"When we design our systems with people who are struggling, our systems will work for us when we inevitably find ourselves struggling."

- Disability intersects with every other marginalized group, and this is also the case in systems intended to serve people who are aging. They experience the compounding barriers of ageism, ableism, and inaccessible design. Older persons with disabilities are the heterogeneous outliers in a world designed for the majority or the average.
- Al is a powerful tool that enhances accuracy, consistency, and efficiency. However, it also functions as an infrastructure of statistical discrimination. This is particularly concerning when Al is used to match, label, optimise, calculate, analyse people at scale, propagating discrimination faster and more efficiently. Systems intended to remove bias rely on statistical reasoning, leaving outliers underrepresented in testing and decision thresholds.
- 3 Older persons with disabilities are especially vulnerable to data abuse and misuse, lacking adequate privacy protections. Many are forced to barter their privacy for essential services. Beyond privacy, we need safeguards against data abuse, with full transparency on how data is collected and used.
- In response, Canada has developed the Accessible and Equitable AI Standard under the Accessible Canada Act. The first principle is "nothing without us because everything is about us." This framework ensures that people experience equitable benefits from AI systems, avoid inequitable harms, retain rights and freedoms due to the use of AI systems, and are given agency and respect in their interactions with AI systems.
- In conclusion, the intelligence that works with the edge of our human scatterplot can better adapt to change, respond to the unexpected, detect risks, transfer knowledge to new contexts, fostering greater dynamic resilience and longevity. It will reduce disparities and may hold the key to our collective survival.

HIGHLIGHTS ON INCLUSIVE DESIGN RESEARCH CENTRE AT OCAD UNIVERSITY

The Centre serves as the nexus of a growing global community that proactively works to ensure that our digitally transformed and globally connected society is designed inclusively. It aims to identify risks and catalyze opportunities for equitable inclusion when new technical systems and associated practices emerge. The Centre promotes inclusion in a full complement of activities, including growing inclusive design and development practices, creating opensource tools that others can use and contribute to, teaching the theory and practice of inclusive design, helping to develop policies, regulations, guidelines and standards that support inclusion, and providing services that support individuals in finding systems that match their needs.







































FOOD FOR THOUGHT

The Human Starburst of Needs

A three-dimensional multivariate scatter plot provides a useful way to explain what people need to thrive. The needs of any given population resemble a starburst, referred to as the human starburst. Like normal distribution, 80% of the needs are clustered in the middle, occupying 20% of the space, while the remaining 20% of needs are scattered at the periphery, occupying the other 80% of the space. Data points at the centre are close together, indicating they are more alike. Data points at the periphery are farther apart, reflecting they are more different from each other.

Exclusion of Marginalised Groups in Standardised Design

Due to economies of scale and conventions such as the 80/20 rule, most designs cater for the middle. However, designs become less effective at the edges and may fail for those at the jagged periphery. This pattern is amplified, accelerated, and automated in the pervasive deployment of AI, rippling across designs, products, knowledge, education, systems of employment, and democracy. In such systems, the critical needs of those at the margins are outweighed by the trivial needs of the majority.

• Innovation from the Edge

The one certainty we face is death and disability. At some point, we will all experience disability, either personally or through someone we love. We all have needs at the jagged edge. Importantly, innovation is found at the edge, not at the complacent middle. People at the margins are the first to detect the weak signals of the crisis, offering society the chance to prepare. If we consider the hugely diverse margins, we leave room for change and growth when the unexpected happens.

TO BEAR IN MIND

Older persons with disabilities are highly vulnerable to privacy breaches due to their uniqueness and risk of reidentification. They are also susceptible to data abuse and misuse. For example, health apps expose users to surveillance and manipulation through advertisements and push notifications. Al often homogenizes, providing advice for the average and predicting the most popular responses, which can work worse for those furthest from the average.

Connectivity, sustainability, and dependency costs are additional concerns. Large language models prioritize plausibility over truth, appearing most confident when repeating stereotypes, influenced by biased and stigmatized data on disability and ageing.

- Accessibility Standards Canada | Link
- Learn more about the Inclusive Design Research Centre at OCAD University | Link
- Explore Inclusive Design Research Centre's Inclusive Al Initiative "We Count" | <u>Link</u>



































Focus: Digital Inclusion as the Pathway to Longevity



Ms. Silvia Neira
Vice President, Global Initiative on
Ageing and Longevity (GIA Longevity)

"Inclusion is not charity but justice. When older persons are connected, we don't just add years to life, we add life to years."

- Science and technology are engines of progress, but progress only matters if it is shared. That's why we must recognize access to technology and science as a fundamental right for older persons, a right that protects dignity, connection, and opportunity. Scientific and technological inclusion is the key for economic, social, and health care integration, and for adaptation to the new reality that we are currently living in.
- Technology is an important tool for inclusion and longevity. When used thoughtfully, it can bridge divides and empower older persons. Partnerships across the private sector, public sector, and civil society are essential to adapt technology to meet the needs of older persons, ensuring equitable access, usability, and meaningful engagement.
- 3 Collaborations with technology partners aim to design labor marketplaces and digital platforms that enable older adults to transition back to work and develop new skills. Science and technology are not neutral; they either widen inequalities or help close them. The choice is clear: either all persons remain locked out, isolated, and invisible, or they are given the right to connect, learn, and contribute through tools that are accessible, affordable, and designed with them in mind.
- The evidence is compelling. Digital engagement reduces the risk of cognitive decline, sustains independence, and saves lives. Beyond statistics, it enhances meaning, purpose, and joy. Let's make sure older persons everywhere can claim the rightful share of the scientific and technological advantages, shaping a world with inclusion and accessibility.

HIGHLIGHTS ON HELPAGE INTERNATIONAL

GIA Longevity is the first global, cross sectoral partnership addressing the ageing and longevity ecosystem. Its mission is to design a new society that empowers everyone to thrive throughout their longer lives. It drives awareness of ageing and longevity and igniting aligned action towards a world built for longevity. By working together with UN agencies, business leaders, governments and society, it is shaping a world where every person is included, respected, valued and cared for throughout their lifespan.



























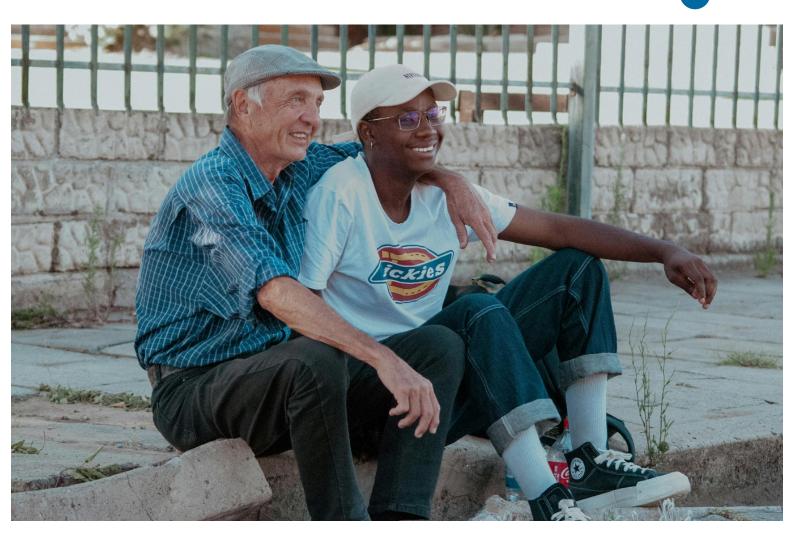












IMPORTANT

Isolation is a silent killer. Isolation isn't just unpleasant, it is dangerous. Research indicates that people who are socially isolated have a 32% higher risk of dying early. Today, isolation isn't just being alone in a room; it is being cut off from the digital world, which means digital exclusion results in social exclusion. For EU citizens, only 28% of people aged 65-74 possessed at least basic digital skills compared to 70% of younger adults aged 16-24. This gap highlights the barriers many older persons face in accessing digital technologies and participating fully in society.

GOOD PRACTICES

- GIA Longevity has partnered with Merck Healthcare/EMD Serono to develop 10 courses for caregivers to support and empower the work they do.
- GIA Longevity has partnered with Uber to advance mobility solutions for ageing populations, adapting the application for seniors to enable safe and autonomous city mobility.

- Explore the Statistics of "Skills for the Digital Age" from European Union | Link
- Learn more about GIA Longevity | Link
- Discover GIA Longevity's online courses | Link







































Decade of healthy ageing





Department of Economic and Social Affairs

















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