

[Summary of the 14<sup>th</sup> Roundtable of AGAC]

## **Development of Digital Technology and Human Rights of Older Persons**

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### **[Dr. Arne Henning Eide: From vulnerable to valuable – digital inclusion of older persons]**

Digital inclusion of older persons in the view of Norway and other countries .

- The rationale behind associating digital technology and human rights of older persons

Digital inclusion today in developed economy is a prerequisite for inclusion, access and participation.

Participating in many different mechanisms such as participating in education and lifelong learning, depends on digital skills and access. In Norway, access to basic services in private sector or public

sector is digitalized. It is an ongoing event and a lot of changes has happend for the last 10-15 years. The access today actually depends on digital access tools and skills. Access to digital technology is essential for older persons regarding health information & services, lifestyles and wellness and entertainment. These also depend on digital tools and financial wellness. Older persons without digital access to their own economy have a difficulty handling their financial situation, employment and work engagement, social participation and relationships. Without digital access and skills to use digital tools, there is a high risk of digital exclusion, lack of access and limited/reduced participation socially.

- Making digital technology accessible for older persons

Even though Norway is highly digitalized, a lot of people, particularly older persons are still left behind. With digital infrastructure at the national level (internet connectivity, broadband and networks), market mechanisms have to be in place to make access and tools affordable for older persons to participate digitally (e.g. digital literacy, digital knowledge and skills). Policies, regulations and standards are required. All these different components build up to accessibility and digital inclusion for all.

The numbers drop as people get older and an age gradient in access is observed in the 'Access to and use of the internet among elderly persons in Norway'.

Quite a lot of people are active, but 50% or more are not active in some of these online activities.

Public services in Norway are on their way to be highly digitalized. Almost 60% of older persons used public services in the last 12 months. 75% of people responded that they "do not need" public online services. Older persons' perception on their own skills and knowledge is a significant part of the problem and the explanation for non-use. The people against digitalization and technological development reached 18%.

The increase in digital access of older persons in US shows a positive development. For instance, the adoption of Internet increased from 12% to 67%.

EU's share is 60%, with quite a lot of variations in the figure, which means it has to do with each country's economic development. The US graph shows there is an age gradient in the use of the Internet and accessing home broadband. The older you get, the less access you have.

- Recommendations:

Many older people do not participate digitally.

In Norway, digital participation among older persons is increasing, and it may have passed a “tipping point”.

Reasons for non-use are multi-faceted and need to be approached as such.

- Boosting digital participation among older people requires awareness raising and skills transfer.

- Strategies for boosting digital participation among older persons need to be adapted to the context, and solutions should be found within the structure. (e.g. the wealth of the State).

- Overcoming barriers

- Ensuring digital inclusion for older adults means overcoming five key barriers: access, installation, knowledge, design, trust.

- Providing high-speed, low-cost internet and devices, along with installation and support, is foundation for addressing connectedness.

- Consumers need digital literacy programs and updated information on relevant technology.

**[Dr. Janina Stiel: Navigating the Digital Divide: Empowering Older Adults through Digitization Policies in Germany]**

The presentation will be focusing on lifelong learning and digital skills aspects.

- Agenda 1. Digital inclusion of Older Adults in Germany

Facts and figures: In 2023, Germany has a population of 84 million people, 25 million of whom are aged 60 and over (30%) (Federal Statistical Office). Of these 25 million about 7 million people above 60 are offliner (28%). The proportion of 'offliners' is increasing in older age groups (aged 60-69) 8% SIM Study 2021. However, there is less digital divide between young and old, but rather within the older generation itself. People with low-income, little formal education, health restrictions, disabilities, who are migrants, living alone and women are more likely to be offline.

According to SIM Study 2021 and D21 Digital Index, there are various obstacles for offliners such as disbelief in internet, financial issues, etc. However, many older persons would use the Internet if they recognize the benefits for themselves and were supported in getting started. Digital literacy of older 'onliners' is unevenly distributed: ranging from beginners to experts who pass on their knowledge to peers. According to SIM Study 2021, only around 1 in 4 people aged 60 and over say they have good or very good knowledge of computers (24%), smartphones (22%), or tablets (17%).

Norway has the least amount of offliners (1%) in Europe (65-74 y.) according to Eurostat 2022, while Germany has 17% and EU27 reached 26%.

•Agenda 2. The right to education for older adults in international and national frameworks  
-Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights(ICESCR): Everyone has the right to education.  
Sustainable Development Goal 4 "Quality Education": Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.  
The right to education for older adults, in general, is not explicitly stated in the Basic Law of the Federal Republic of Germany.  
Anti-Discrimination-Laws forbid age-discrimination in general.  
Social Code: local governments are encouraged to provide learning opportunities for older persons (§71 SGB XII).  
Germany does not have a strategy for education in old age yet.

•Agenda 3. Digital Literacy for older adults in international and national frameworks  
1. National Action Plan (NAP, 2017) to implement the 2002 Madrid International Plan of Action on Ageing (MIPAA) Commitment VI: Promote lifelong learning and education (...) Training programs that focus on new technologies are particularly important in this context.Satisfying the educational needs of older people requires specific strategies and practical measures. It is necessary to adapt educational institutions to the requirements of retired people.  
2. UNECE Ministerial Declaration (2022, Link); art. 24: "facilitating and investing in formal and informal learning opportunities for older persons beyond professional education to strengthen

their potential for a fulfilled life in old age while also improving participation in lifelong learning among the adult population"

3. Digital Strategy of Germany (2022): "In a society of longevity, education in old age is of particular importance. We therefore want to strengthen the confident use of digital technology in old age."

-2020 Germany's Presidency of the Council of the European Union

Council Conclusions on Human Rights, Participation and Well-Being of Older Persons in the Era of Digitalisation

20. Older persons have a right to full participation in public, social and cultural life, as well as in education, continuous training and lifelong learning. Digital activity increasingly guarantees active social, cultural and economic participation and inclusion, and helps prevent social isolation (...) Hence, there is a need to improve digital skills and the accessibility of digital services.

29. further develop mechanisms for the participation of civil society in decision-making in relation to older persons in the digital world.

33. Support and strengthen different forms of education and training, lifelong learning opportunities and the development of skills, including technological and digital skills. These are highly important for the participation in the digital world and in social life and should also be utilized to address the digital divide between women and men

34. Shape digitalisation with regard to, in particular, such public services as health, social and long term care services, in such a way that these services are easily accessible, user friendly, and as barrier-free as possible, while ensuring that non-digital services are maintained. (...)

37. Ensure through alternative means that those who cannot fully use digital technologies can enjoy the same rights as other groups of the population

•Agenda 4. Expert Recommendations: 8th Government Report on Older People "Older People and Digitisation" 2020 written by Committee of Independent Experts  
Out of 20 recommendations, I'd like to point out a few.

1. Significantly increase the priority enjoyed by older people in the Federal Government's "Digital strategy"
2. Enable access to and use of digital technologies for all
4. Understand digital technologies as an opportunity both for older people with care-related needs and for their carers
9. Ensure that research into and development of digital technologies takes into account the skills, needs and requirements of older people
10. Ensure sufficient funding for innovation and innovation transfer

#### Agenda 5. Model: Digital Pact for Old Age (2021-2025)

It was initiated in 2021 in response to the 8th Government Report

- Raise awareness among older adults of the opportunities offered by digitisation
- Facilitate access and empower older people in the use of digital technologies
- Ensure social participation by promoting digital literacy

German Government has 23 Partners to tackle the issues of digital exclusion of older persons by connecting the political, economic and civil society sector (connecting Federal, State Government and local authorities). By the end of 2025, there will be 300 places to for learning. The places will provide low-threshold access to peer to peer learning and provided financial support to purchase equipment by the Government, etc.

• Conclusion: There is a need for learning opportunities for older people to acquire digital skills-for different skill levels and with correspondingly diverse formats. There (still) is a need to maintain analogue options so that offliners can also manage their everyday lives independently. There is a lot of commitment in various frameworks to promote education and especially digital literacy of older adults. However greater efforts and more funding would be desirable to implement these promises. The successful model has been tested many times, now it needs to be rolled out on a larger scale.

**[Prof. Carol Ma: Promoting Access to Assistive Technology for Healthy Ageing in Singapore]**

1 in 4 of Singaporean citizens will be aged 65 or above by 2030 according to UN report 'World Population Ageing 1950-2050'. It will be 1 in 2 by 2050.

The number of unhealthy years is 10.57 compared to 10 years ago. Maintaining the quality of life and healthy ageing has become one of the most important issues in Singapore.

As people get older, decline in mobility, self-care, remembering, hearing, seeing and communication happens.

Singapore is paying attention to designing strategies for ageing at home and education for older persons as the national life expectancy increases.

Singapore has adopted ICOPE(Integrated Care for Older People), which means a community based approach towards person-centered health and social care in order to optimize the functional ability of older people. Access to assistive technology is important for 'ageing in place'.

According to 'Level of intrinsic capacity impairment of older adults in Singapore', the latest research in Singapore, 77.4% of Singaporean older persons have at least one impairment in any of the 6 intrinsic capacities (vision impairment, hearing loss, cognitive decline, limited mobility, malnutrition and depressive symptoms). Vision impairment, hearing loss and cognitive decline were the most common problems like other countries' study findings. Assistive technology can help the older persons who have intrinsic capacity impairment maintain or develop their functioning, autonomy and independence.

•6As of Access to Care in Assistive Technology (AT) (modified from Penchansky and Thomas' framework 1981)

To meet older persons' needs, 'Affordability, Acceptability, Availability, Accommodation, Accessibility and Appropriateness' should be considered in assistive technology.

•Support Schemes for Accessing Assistive Tecnology in Singapore

-Government-led initiatives: Senior Go Digital Programme, GovTech's Accessibility Enabling Team, Home Access Programme, Senior's Mobility and Enabling Fund(SMF), Housing Development Board(HDB) Smart Enabled Home, The Assistive Technology Fund(ATF)

-Community-led initiative: Gerontechnology Ambassadors Training

•Strategies to promote access to assistive technology for healthy ageing in Singapore.

1. Considering older adults' opinions in using assistive technology
2. Considering the opinions and preferences of older adults is crucial in encouraging the adoption of assistive technology
3. Protecting the rights of older adults such as right to dignity and respect, participation and inclusion, safety and security, privacy and data security, education and access, health and well-being as outlined by WHO.
4. Considering user experience of older adults
5. Adopting whole-of-society approach to work together

### **[Prof. Takeo Ogawa: Promoting Human Rights of Older Persons through the Expansion of Public Accessibility of Assistive/Welfare Technology in Japan]**

•In the pre-ageing society(1960-1968), Universal Support System for All Citizens took care of citizens in Japan. National Pension Law, National Health Insurance Act, Act on Social Welfare for the Elderly, etc. were established. Fundamental infrastructure was made during this era.

•In the ageing society(1970-1995), Japan has made new triumphs such as Dissemination Center for Practical Long-term Care (1992) which aims to disseminating long-term care skills for family care givers, frontier workers and care workers on how to deal with new skills, operate the equipments and rent the equipments for older persons, persons with disabilities and thier families.

•In the aged society(1995-2005), Universal Long-term Care Insurance System was established. A new financial support is great for adopting assistive/welfare technology for older persons. Also Basic Act on Measures for the Aged Society was developed by the collaboration of every Ministry to provide the public service for older persons. Based on this Act, The Guideline of Measures for Aged Society was created. This Guideline includes housing, transportation, income, education, social participation, living environment and working programs. In 2005, PARO, the therapy robot was introduced.

•In the super-aged society(2006-present), many new techonologies such as rehabilitation robots and powered suits were introduced. "Fukuoka 100(2017)" prepares for the society where almost all citizens live until 100 years old. "Healthcare in the Society 5.0 Era" integrates cyber space and physical space. Japanese Government is aiming for these measures on the ageing society by using the innovation of technological achievements. We are now facing new normal life.



- Age-Friendly City is a very comprehensive framework which has 8 domains of transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community support and health services and, outdoor spaces and buildings. Assistive/welfare technology can be developed within the domains. For example, digital literacy and communication robot belong to communication and information.

According to White Paper of Aged Society 2021, Japan reached the lowest compared to USA, German and Sweden in regard to the older persons' use of Internet shopping, social network, Internet banking and e-government. The figure shows that age-friendly city has not developed yet in the domain of communication and information.

To protect the dignity of older persons and reach social inclusion of older persons with reduced ADL and IADL and cognitive decline, adult guardianship and digital skills need to be improved. For example, in 2018, under Fukuoka 100 designed a community based integrated care system, which was built on a big database by integrating data related into health insurance, long-term care insurance and data from the residential registration system. Based on the database, some programs for long-term care was made. In addition, a data management project was implemented by Fukuoka city, corporates and universities so that citizens can access their own health record.

In Japan, technology-related scams and fraud targeting older persons who are unfamiliar with digital skills have been increased.

- Conclusion: Innovations in assistive/welfare technologies should not only focus on productivity but also humanity. Long-term care is about relationship between people as well. To create a truly inclusive society, it's necessary to build a social system in which people who understand, don't know, can do and can't do will understand each other in new normal life.

### **[Prof. Yeong-Ran Park: Digital Transformation of Aging Services in Korea]**

- Demographic situation, issues and needs

Korea is one of the fastest ageing countries. Fertility rate is 0.78 in 2022. People aged 65 or older now make up 18.4% of the population (about 9.4 million) and it is expected to reach 40.1% in 2060. 48.3% of people with disabilities is above 65.

-Increasing need for policy and practice innovations to support active and healthy ageing in Korea.

Major issues in Korea: Older persons' poverty, isolation and illness issues.

In terms of providing safer and healthier environment for older persons, South Korea still has a long way to go compared to other advanced countries. Korea has been participating in International Conferences on Ageing such as Madrid International Plan of Action on Ageing(MIPPA), which is an important document for Korean Government.

Korea has an age-friendly citizen community and about 50 of them joined the network of WHO. ASEM Global Ageing Center has been playing a major role for facilitating the dialogues among countries in Europe and Asia for the past 5 years,

- Policy development in Korea

Act on welfare for elderly(1981), Comprehensive plan for health and welfare for elderly(2022), Act on low fertility and ageing society(2005), Act on promotion of age-friendly industry(2006), Act on long-term care for elderly(2007), Revision of Social Security Act(2012), Dementia Management Act(2011)

- Policy trends in Korea

Community based care(Ageing in place), Job creation for older people, Pension Reform, Lone elders support programs, National responsibility projects on dementia, Smart care. Central/local government, business sectors, research institutes and universities are involved with these initiatives.

- Ageing and digital transformation in Korea

After Industry 4.0 was announced in Switzerland, Korean Government has been building different frameworks and initiatives to foster this development. Covid-19 pandemic accelerated the speed of development in Korea. Workers in social services are trying to adopt new technologies into their services.

Gerontechnology has many different names such as medical technology, rehab technology, age tech, wel-tech, assistive technology and able-tech. Tablets and new gadgets are used in public health centers, dementia prevention centers and senior centers. Even the AI system calls older persons to check in on them.

According to 'A study on the effectiveness of using the companion robots for lone elders(2021)', older persons' depression score decreased. However, this kind of program has a cost and management issue.

Smart nursing home project is an interesting project aims to prevent older persons from falling out of bed by setting up different sensors, monitor them and help them through workers wearing a wearable robot.

There have been both positive and negative responses from care workers. There is a big gap between different regions, service areas and people and the society has to close the gap.

- Future directions for digital ageing: A vision for technology for all

- Global partnership, innovative projects

- Macro/mezzo/micro innovations for Service Design & Digital Transformation:

- Policy initiatives for affirmative resource allocation

- Organizational restructuring for digital services

- Digital literacy training of services users and providers

- Development of evidence-based digital service model

- Build an infrastructure for digital services

Compared to other age groups, 60s and above 75 years old are much behind in terms of digital literacy, access and usage.

ASEM Global Ageing Center initiated a digital literacy training program "Digital rights are human rights" a few years ago. At that time, 18 different countries participated in this project and the participants wanted to implement this training program to close the gap in their own country.

- Conclusion: We should learn from each other and think about other countries, especially about less developed countries to close the gap between advanced and less developed countries.

## [Q&A and Discussion]

Dr. Takeo Ogawa: There are many older persons with disabilities. They can't operate new technology by themselves. Please share your country's ICT literacy programs for older persons with disabilities with us if you have any.

Dr. Hye-Kyung Lee: Dr. Ogawa's question reminds me of Dr. Stiel's conclusion, which emphasizes on the need of analogue services options for those who can't operate new technologies by themselves. I think it is a very good statement to be declared.

Prof. Yeong-Ran Park: In Korea, it is sort of in the beginning stage of all these things. Different small projects are being implemented. In one area, care-givers who actually visit older persons' home is being taught how to teach older persons is happening. It is like a training for trainers(care givers) because they are in between. We have these projects initiated by some funding from big corporates including Samsung. We are trying to create new jobs for baby boomers here, such as teaching them to be digital literacy trainers. Interestingly, we have gerontechnology docents similar to digital ambassadors in Singapore. I'm teaching older persons about different types of technologies like robots and cognitive training programs so we need different types of trainers.

Dr. Arne Henning Eide: Disability is quite diverse. For many people with disabilities, digitalization is liberation. They can communicate much better than before. They have particular incentives to get on board, but still, there is a small proportion that has physical or cognitive reasons for not participating in, but that's a relatively small group among one billion persons with disabilities in the world. Because I think it is the official figure from the WHO. Most of these people are disabled moderately. They can really benefit from digitalization. I think digitalization and AI are a moving train that we can't stop. So it's a matter of reduced damage and by damage, I mean digital exclusion. It is a case that we probably have to do a lot of different things and also learn from each other when these are properly evaluated to identify what works and what doesn't. There needs to be a good research to single out effective approaches. Innovations are much more than developing technologies, they are also about how to promote the use of technology and we should have a wide understanding about innovations. Global partnerships are extremely useful as we can learn from each other. I also think that we should consider low and middle income countries as they very low level of digital literacy.

Prof. Carol Ma: Gerontech is still a difficult term for people to understand. That's why prof. Park mentioned several different names for that term such as welfare technology. When I use the term gerontechnology, some stakeholders tell me the term is difficult for people to understand. We should

find an easy name for people like 'assistive technology' in WHO reports. We should address how assistive technology can promote healthy ageing. At the end, it promotes mobility and independence of living. To support older persons with disabilities, some protocol is needed. For example, those who have mobility issues, a motorized wheelchair helps them. It also depends on whether the country can provide them with such devices or not. Regarding supporting the less developed countries, Asia-Pacific countries set up a longevity network so that we can learn from each other's experiences. I also want to highlight the fact that technology is expensive. We should think about creating high-touch, high-tech and low-budget technology, and whether they have infrastructure to support like broadband and Wi-Fi, etc. I hope that we could work together, we can even get government representatives to join some of the presentation and work with local telecom companies. Some local telecom companies provide cheaper rate for older persons.

Prof. Yeong-Ran Park: It was interesting to learn that the initiative on the rights of older persons is from Ministry of Family Affairs, Senior Citizens, Women and Youth. In Korea, the Ministry of Social Welfare is not really into the that yet. However, the Ministry of Science and Technology talks about the agenda of the digital gap. It was great to know that Germany takes a different approach.

Dr. Janina Stiel: The Ministry of Education also says they promote lifelong learning. However, given how long the life is, this strategy ends with retirement so it is not ideal yet even if we are doing our best. I'd like to echo what all the others said. Having a global network together is important.

I heard from Singapore and Korea, you create jobs for baby boomers such as training them to be trainers. Germany heavily relies on volunteers so who pays for the jobs in Singapore and Korea? And the Basic Act on Measures for Aged Society was mentioned in Japan, and it sounds like the Government checks everyone's age. We have something similar but it is only for young people. How did you mainstream the ageing part? For Norway, the proportion of offliners is only 1%. How did you achieve that number?

Dr. Carol Ma: Singapore has noticed that the older persons have a longer life and many of them are retired. They want to work as volunteers but the Government decided to give them allowances in the recognition of their efforts. A lot of them tell us they want to use different kinds of medical devices because they are related to their health. This also allows us to know their needs. The whole idea of creating micro jobs is to recognize the older persons and their time because they have to attend an intensive training so it is all about time. We have a chat group so every time we see any technology, we send it to the chat group to consider which things to put in our living lab. This is actually the voice of older persons. In early stage, we also wanted to promote the concept of this micro jobs.

Because you can't really ask for volunteers' time whenever you need, however, if they are paid, their visits become more easier. And we understand that retired people can be very busy too.

Dr. Yeong-Ran Park: It is similar in Korea too. It is not a full time job but a part time job. We have a small allowance work program for older people. We always consistently try to create new jobs. The baby boomers with higher education and more experiences are fit for this kind of program, they are kind of new breed of older citizens so they can volunteer but also work part time at the same time. We also try to distribute robots to people but we should realize the delivery is not the end of the service. We always have to look into it. We have to develop new jobs for older people. We are trying to utilize this new breed of resources.