



The April edition of the ICSW Global Cooperation Newsletter largely profiles the activities taking place in the North-East Asia Region of ICSW, as well as in South- East Asia and the Pacific Region. Apart from the regional aspect, the materials presented to the readership also cover the thematic dimension—the ageing of the population and the ongoing efforts aimed at addressing its consequences. In particular, the authors discuss an integrated approach to care, the development of ageing-specific technologies and products, and the interdisciplinary nature of gerontechnology and welfare technology. It is well known that older persons represent the growing and in many cases vulnerable segment of the population, and the 2030 Agenda for Sustainable Development aims at strengthening participation, empowerment and better inclusion of such groups, along with other social groups in situations of vulnerability. The recent seminar organized in April in Malaysia specifically addressed the role and place of population ageing in the context of the 2030 Agenda. Information about the forthcoming conference is Hong Kong on gerontechnology is also presented.

As usual, the Newsletter also presents information on recent books and articles of interest to our readership.

**Sergei Zelenev, Executive Director and the Editor of the Global Cooperation Newsletter**

continued on page 2

INSIDE

Technology for Ageing in Place

2

Korea's Experience in the Application and Development of Gerontechnology

10

continued from page 1

### Technology for Ageing in Place

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Population ageing is an important phenomenon that generates economic, social and personal challenges for societies. The associated demographic changes also call for developing new products and services designed to meet the needs of an increasing number of older adults. We expect technological innovations to enhance the effectiveness of our health and long-term care systems, improve the quality of life of the older population and, at the same time, create a new page for the associated societal changes.

In order to put the proper role for the technology for ageing in place, it is necessary first to consider the initial objectives of such innovations. This article provides a brief highlight of some remarks on ageing-in-place technologies, with an outlook to future possibilities.

**Ageing in Place**, which seeks to enable older people to stay at home in their community and avoid institutional care for as long as possible, has been the dominant model for positive ageing over the past decade. Meeting the challenges of ageing requires an integrated approach to care, which implies better care management and shared responsibility among health and social-service systems.

#### Preventing Falls among Older Persons

An effective ageing-in-place arrangement must include protocols to address the risk of falls by senior persons and its prevention. The technology-based interventions that have been deployed in a wide range of fall-prevention contexts include assessing, diagnosing and treating fall risk, increasing



adherence to intervention, detecting falls and alerting helpers in the event of a fall. These range from the appropriate design of the built and home environment, as well as smart devices that provide biofeedback or assistive mechanical compensation to support better balance or adjust the center of gravity of a person.

However, notwithstanding a very detailed understanding of the complex home or community environmental, physiological and biomechanical processes involved, very few of these solutions have yet been statistically demonstrated to be useful, i.e. in reducing the risk of falling. Moving to outcome-based ageing-in-place arrangements and actively seeking data-driven strategies to make fall prevention more efficient and responsive to person's needs are a priority. As the development practitioners start to urge field workers to engage in population health-management techniques such as risk stratification, disease-management screenings, and healthy living coaching, fall prevention specialists become more interested in adopting big-data analysis tools to deliver the insights.

#### Smart Home Technologies

The "smart home" environment has been widely promoted as the critical solution enabling older persons to live independently. That is facilitated by advances in information

and communication technologies, demonstrated by smart-sensor networks that are responsive to a wide range of measured environmental, physiological, and emotional parameters. The combination of these features into the home living environment is essentially what constitutes the concept of a 'smart home'.

In reality, smart-home technologies go well with the assisted care for ageing-in-place. The recognized goal of the smart home in the ageing-in-place context is to enable older person to age in place with independence, safety, dignity, and quality of life, whereby the person's medical and social care is monitored and functional support for home management and personal motility is provided as needed. Examples may include activity monitoring and the provision of emergency assistance when an imminent harmful situation is detected; environmental controls responsive to the person's health status; the control of home appliances aimed at providing networked assistive-technology support for basic ADL and IADL; and robotic homes systems, including supervised environments for people with mild cognitive impairment. The degree of success of smart-home applications eventually relies upon the extent to which their design and implementation makes it possible to tackle the challenges faced by older persons, making them active participants in the health and social-care decision and in the monitoring of their conditions.

Needless to say, smart-home technology applications also encompass cultural difference. In a recent survey, GFK (2016) online interviewed over 1,000 adults in Germany, UK, USA, Brazil, South Korea, China and Japan. The key differences in the impact of smart-home technology across China, Japan and South Korea were found interesting. The majority of consumers in China believed smart-home technology would

make an impact on their lives in the near future, almost equaling their hopes for wearable technology. However, in Japan, only one in five people considered smart-home technology would impact them, and mobile payment won notably higher votes. For South Korea, it was revealed that opinions were divided at around half. In the findings, the key barriers to adoption of smart-home technology were cost, with around a third of the people citing that factor, and privacy and the danger of hacking. The high cost of smart-home technology was of most concern in South Korea (30 %) and China (29 %), with slightly fewer Japanese consumers seeing that as a barrier, at 25 %. Privacy concerns were most common in China (27%), with South Korea standing at 24% and Japan at 18%. In a smart-home ageing-in-place environment, robots with affective-response ability and responsive to voice, eye-gaze, and gesture have recently entered the Hong Kong market. Japan pioneered this arena a decade ago through the development of companion robots and further research in this direction has taken place in Europe. It is foreseeable that the practical research on ageing-in-place robot technology can be enriched in the Chinese community.

### Conclusions

The objective of technological intervention for ageing in place is to enable older people to live and socially engage with a maximum degree of independence, safety and dignity. Although technology has the potential of being a powerful solution for successful independent living, we should carefully look into the application in the local context. Looking to the future, the application of technological advances should be carefully studied. The establishment of the baselines upon which to benchmark the social and functional value of new ageing-in-place support-technology-based systems and services is highly recommended.

### Korea's Experience in the Application and Development of Gerontechnology:

Shim, Woo Joung (Korean Association of Products and Services for Senior citizens)

In 1989, Jan A.M. Graafmans from Eindhoven University in the Netherlands coined the term "gerontechnology" to describe how technology-based products could help older persons to stay independent. As an interdisciplinary field that involves the study of both technology and ageing, gerontechnology has played a major role in addressing various dimensions of ageing, including physical aging, psychological aging and social aging. It has also played an important role in helping the elderly to maintain a decent standard of living, providing compensation for their reduced abilities, alleviating the burden on their family and caregivers, and encouraging research in which the elderly participate. In the Republic of Korea, gerontechnology has been developed and applied to improve senior care, housing, leisure time, and welfare. Technically, assistive technology and a rehabilitation approach had been in place to support recovery from mental and physical disabilities caused by aging. Incorporating the notion of barrier-free and universal design, meaning that what is convenient for the elderly is good for everyone. Senior-friendly services and living environments were provided. That was a simple and low-tech tool to provide solutions for housing and mobility, as well as everyday problems, so that senior citizens could enjoy safe and independent lives. However, consumers only started looking for such tools after growing old and developing disabilities or diseases. Often, the elderly and their families did not even know what kind of support they could receive.

Beginning in 2005, the government enacted

the Senior-Friendly Industry Promotion Act and enacted the Saeromaji Plan on a five-year basis to boost that industry. The government put ICT/IoT, active aging, and anti-aging at the center of concepts to enhance existing senior products and services. It also tried to apply the concept of preventive care. Some companies participated in AAL projects in Europe and conducted more extensive research. Joining forces with the government, they made it possible for consumers to experience such products and services. However, this was not welcomed by the market for several reasons. First, providing the services as welfare benefits had limitations, and they were often unable to detect aging problems or create values by themselves. Second, these products and services were not enough to solve aging problems entirely and were not suitable for all aging levels, which made it difficult for customers to use them. In addition, they were not safe, convenient, or interactive enough. Third, if customers were not recipients of long-term care insurance for the aged, they did not have access to welfare supplies and, as such, had to bear the burden of expenses with nothing other than their paychecks. Similarly, the providers of the welfare services and facilities within the ICT system were not willing to invest in additional workers, time, or in reducing purchasing costs.



However, the fourth industrial revolution has created new opportunities for addressing such problems. With artificial intelligence, the Internet of Things, and robot technology,

products and services for the elderly can become automated, autonomic and interactive. Further, innovation in productivity makes cheaper and more customized services possible. These changes in technology are highly likely to transform the life and environment for the elderly and create new values and markets. In this fast-changing technological and social environment, worldwide efforts are needed to share technology, nurture innovative manpower and develop standards and theory quickly. In other words, we should take this opportunity to expand worldwide cooperation and exchange.



As the President of KAPSASS, I suggest that related governments and organizations should hold an Asian gerontechnology forum and an international gerontechnology expo. In November of this year, the gerontechnology expo and forum will be held as part of the "SENDEX 2017" exhibition.

The next ten years could be more promising than past years. With this new opportunity, gerontechnology will become a cornerstone on which we can "make the later years happy and enrich the silver world," as the KAPASS's slogan proposes.

\* KAPASS: Korean Association of Products and Services for Senior Citizens, since 2003

### Convergence of Welfare and Technology: Welfare Innovation in Korea

Kim, Hee-yeon (Gyeonggi Welfare Foundation)

"Welfare technology" could be generally defined as technology that supports our daily lives; however, in more specific terms it is characterized as "a package or institution that encompasses knowledge, technology, relevant laws and regulations, facilities and equipment based on information technology, intellectual property rights, or patent systems." It could also mean "innovation that surmounts inefficiencies in welfare-related services or institutions."

According to the definitions above, welfare technology linked to scientific technology has been named "gerontechnology" or "elder tech", since it addresses the needs of the ageing population. It utilizes information technology in healthcare or other care services, thereby making welfare services more effective. Welfare technology in terms of institutions contributes to improving the efficiency of welfare expenditure and delivery systems by introducing a new institution as well as employing or complementing the existing one.

Korean welfare technology in terms of institutions has followed systems in advanced countries and has accordingly grown exponentially. It took 15 years on average for Korea to introduce and complete social insurance (industrial accident compensation insurance, health insurance, national pension, and employment insurance) and the National Basic Livelihood Security System. Less time was required for that in Korea in comparison with the over 30 years needed in developed nations. The Korean government has dramatically increased welfare spending (13 trillion won in 2017), thereby accounting for 32.4% of its total spending.

For all those advancements, Korea's welfare technology still lags behind advanced countries, given its low benefits and shorter term of benefit payments. Although welfare technology, including vouchers, service purchase orders and an integrated social welfare network, has been introduced, there is still room for improvement.

Welfare technology in Korea should contribute to creating an ecosystem that is effective, preventive, convergent, and innovative; first, welfare technology centers can be established to promote the innovation of welfare technology and its distribution; secondly, welfare innovation minimizing the inefficiency of the service delivery process can be made possible by addressing the community's welfare needs through community-based social-economy organizations.

Consequently, welfare technology in Korea is projected to reduce the inefficiency of government spending caused by increased welfare expenditures, advance the scientific components of social welfare, and ensure expertise in social-work fields.

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### Upcoming event: Gerontech and Innovation Expo cum Summit (GIES)



On the 16-18 June 2017, at the Hong Kong Convention and Exhibition Centre, an event entitled "Gerontech and Innovation Expo cum Summit (GIES)" will be one of the celebratory activities of the 20<sup>th</sup> Anniversary of the establishment of the Hong Kong Special Administrative Region.

The GIES contains two parts – first, the Summit, which will engage a wide spectrum of international and local communities, including the public and private sectors, policy makers, academics and professionals, as well as the younger and older generations. The purpose is to share information, exchange views and lessons, and debate new ideas about the current and emerging health and social challenges for our ageing population, as well as about developing, adapting and empowering technology and innovation to meet those challenges. The second part, the Expo, open to the public, will showcase local and global examples of technological and innovation to meet those challenges. The second part, the Expo, open to the public, will showcase local and global examples of technological and social innovation in the pertinent areas, including assistive and medical devices, wearable gadgets, sensor and monitoring systems, food, tele-health, smart-home technology and robotics, as well as the delivery of our public healthcare services, home-based care and community-

based support. Throughout the three-day event, we will also host a number of theme-based workshops to look at emerging issues confronting the use of innovation for the ageing population.

The objectives of the GIES are to promote community awareness of the power of technology and innovation for healthy and active ageing; identify the driving forces and hurdles in encouraging innovation for the ageing population; and prioritize the areas that are in most need of innovative solutions to cope with the ageing challenge. This event will be co-hosted by the Hong Kong SAR government and the Hong Kong Council of Social Service. The Hong Kong Science and Technology Park will serve as a co-organizer. Please visit <http://gies2017.hkcss.org.hk> for more details.

### Ageing in the context of the Sustainable Development Agenda.



National seminar— *"Social Protection & Sustainable Development—Empowering Older Persons"* took place on 8 April 2017 in Kuala Lumpur, Malaysia. It was organized by the National Council of Welfare and Social Development Malaysia (MAKPEM), affiliated with ICSW. The seminar brought together academics, NGO activists and social-welfare practitioners from all states of the Federation of Malaysia, serving as an important platform

of Malaysia, serving as an important platform for discussing the opportunities and challenges posed by population ageing in the country.

The seminar was addressed by Y.B. Dato Sri Rohani binti Abdul Karim, Minister of Women, Family and Community Development of Malaysia, who underscored the value placed by the Government on close cooperation with the NGO community, MAKPEM in particular, in safeguarding the well-being of older persons in Malaysia.

In his statement to the participants, Dr. Sergei Zelenev, the Executive Director of ICSW, focused on the issues of the dignity and worth of older persons, linking them to the existing need to strengthen the social-protection frameworks that enable older people to continue contributing to society and play active role in all aspects of life.



In the presentations and discussion, the participants focused on the government's role in planning and implementing the SDGs, while addressing the special needs of older persons. It was noted that by 2030 5.8 million people (about 15.3 per cent of the population of the country) will be people over the age of 60. The importance of effectively incorporating the aspirational and global targets into national planning process, policies and strategies was underscored. The social protection floor initiative was also discussed at length in the context of Malaysian realities.

## Useful resources and links—the finds of the month

### Cost of Aging

By Ronald Lee and Andrew Mason

FINANCE & DEVELOPMENT, March 2017,  
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The authors of the article explore some key issues related to population aging and slowing labor force growth.

For more details:

<http://www.imf.org/external/pubs/ft/fandd/2017/03/lee.htm>

### The Development of Indonesian Social Policy in the Context of Overseas Development Aid, UNRISD, 2017

Authors: Brooke Wilmsen, Alexandra Kaasch, Mulyadi Sumart

In the last decade, social protection has risen in prominence as a strategy to address poverty and vulnerability in developing countries, yet little is known about the role that Overseas Development Assistance (ODA) plays in the reform of social

protection. To address this gap, this UNRISD paper explores the specific example of Australia's ODA in shaping the social protection programs of Indonesia.

For additional details:

<http://www.unrisd.org/80256B3C005BCCF9/search/0DD036BC1CA5281AC12580F1004DFADB?OpenDocument>



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