Introduction to the Minitrack Digital Innovations for the Aging Society

Heiko Gewald Neu-Ulm University heiko.gewald@hnu.de

Doug Vogel Harbin Institute of Technology isdoug@hit.edu.cn

Karoly Bozan Duquesne University bozank@duq.edu

Global populations are ageing at a faster pace than ever before. This demographic development affects every nation and will dramatically impact all aspects of society as we know it. The World Health Organization (WHO, 2022) reports that:

- In 2020, the number of people aged 60 years and older outnumbered children younger than 5 years.
- Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%.
- In 2050, 80% of older people will be living in low- and middle-income countries.

Today, there are already more than 1 billion people aged 60+ years living on this planet, most of them in low- and middle-income countries (WHO, 2022a).

Whereas many seniors in less developed countries do not have access to even the basic resources necessary for a life of meaning and of dignity, the ageing societies in developed countries face challenges like chronical diseases and social isolation. Thus, all countries face major challenges to ensure that their health and social systems are ready to cope with the demographic shift.

In response, the United Nations (UN) General Assembly declared 2021-2030 to be the "UN Decade of Healthy Ageing" (United Nations, 2021). The goal is to form global collaborations that bring together governments, civil society, international agencies, professionals, academia, the media, and the private sector to improve the lives of older people, their families, and their communities (WHO,

An unavoidable consequence of an ageing population is that from one point in time, there will be not enough younger people to take care of the elderly and Information Technology (IT) needs to step into this gap. To enable the aging population to live a longer self-sustained life, Information Technology and Information Systems Researchers, with close collaboration Psychologist, Gerontologists, Sociologists and adjunct research areas need to provide corresponding solutions.

Ambient Assisted living and Smarthome concepts point into the right direction, voice-based assistance systems and smart apps as well. However, three the summan and the three temptones of the summan and the sum 1 CSS a huge demand for robust, easy to use and cost-

effective solutions to be deployed in less favorite settings.

Although there is still a long way to go, the authors of the papers in this year's minitrack provide insights that will help us to counter the dramatic challenges lying ahead.

Dara LoBuono and Michael Milovich provide a literature review to ground our knowledge with a specific focus on seniors' nutrition: "Technology Use in Managing the Nutrition Health of Older Adults: A Scoping Review". They analyze 21 years of peer-reviewed research in technology and nutrition to explain how technology is used to manage the nutrition needs of older adults and to describe the types of technology used to manage nutrition.

Mirou Jaana, Haitham Tamim and Guy Pare report on their findings from a national survey of 2000 seniors in Canada assessing their technology and e-health applications use, social determinants and interaction with the healthcare system: "National Survey of Older Adults in Canada: Social and Health Care System Determinants of E-Health Applications Use". They find that seniors at large are technology savvy, whereas this does not necessarily translate into the use of eHealth applications.

Yuanvuan Cao, Sowmiya Meena Subramanian, Mojisola Erdt, Mohamed Riaz Mohideen Tawood Mohamed Abdul, Jina Yi and Yin-Leng Theng study the usability of health coaching apps: "Evaluation of Supporting Tools for Health Coaches Providing Nutrition and Exercise Coaching to Older Adults in Singapore". Based on the results of a user acceptance test they derive recommendations on how to improve the acceptance of these type of apps.

References

United Nations (2021). "2021-2023 United Nations Decade of Healthy Ageing",

https://media.un.org/en/asset/k1p/k1pvtzugdo

WHO (2022a). "UN Decade of Healthy Ageing", https://www.who.int/initiatives/decade-ofhealthy-ageing

WHO (2022). "Ageing and health",

https://www.who.int/news-room/factsheets/detail/ageing-and-health

Page 2900