Introduction to the Seniors' Use of Digital Resources Minitrack

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The continuous ageing of societies around the globe remain one of the grand challenges of humankind. The United Nations find in their latest report on ageing that "in 2020, there are an estimated 727 million persons aged 65 years or over worldwide. This number is projected to more than double by 2050, reaching over 1.5 billion persons. The share of older persons in the global population is expected to increase from 9.3 per cent in 2020 to 16.0 per cent in 2050. By mid-century, one in six people globally will be aged 65 years or older." [1]

Thus, societies face a dramatic shift in several dimensions. From implications for the active workforce, knowledge management, pension and healthcare systems to new ways of living together and beyond. Especially an analysis of implications for living conditions are in the focus of the report mentioned above. The report states that the trend that older people are living alone or with their spouse is increasing as compared to growing old while living in extended-family households.

If more and more elderly people are living on their own, this poses specific challenges. Information and communication systems need to address this trend and offer support to enable a longer self-sustained living. For example:

(1) Social isolation, loneliness, lack of companionship are a widely acknowledge issue. Specifically for elders who have not been very socially active during their younger times. We still have not seen the emergence of a social network that is widely used by the elderly but could prevent from emotional loneliness.

(2) Tripping or falling and physical safety difficulties in general are a constant threat to people living alone. The vision of falling and not being able to get help is very scary. Physical mechanisms are available but need to become cheaper to reach a large set of users and also need to become more user friendly (e.g. automated fall detection).

(3) Remembering medication, medication overdose or underdose are also a challenge. First concepts exist but are also not yet widely used. Easier and more cost-effective solutions, maybe based on the use of smartphones which show increasing adoption rates amongst the elderly, would be helpful

(4) Difficult access to nutritious foods often poses a problem for seniors living alone. Although in many locations meals-on-wheels are an option, this not necessarily a service provided everywhere. Social information systems could help to organize regional services to provide regionally sources nutritious food for seniors living alone.

The number of challenges and potential solutions seems countless. On the bright side. this is an area, where the information systems discipline can really make a difference. We are looking forward to many innovative solutions over the coming years. In the meantime, our minitrack features four papers which address the grand challenges of the ageing generation in different ways.

Vogel, Grotherr, von Mandelsloh, Gaidys, and Böhmann elaborate on „Older Adults' Use of Online Neighborhood Social Networks: Perceptions, Challenges and Effects". They discuss the use of online social networks by the elderly and show exemplarily a platform that established itself as a useful information sharing medium but was less successful in establishing a local peer support network among neighbors.

Li, Peng, Kononova, Kamp, and Cotton discuss their work "Rethinking Wearable Activity Trackers as Assistive Technologies: A Qualitative Study on Long-Term Use". They analyze the antecedents of the continuous use of wearable fitness trackers amongst elderly users and show several applications for this type of technology.

Jain, Trivedi, Agarwal, and Thakur present their design science paper "MeshSOS: An IoT Based Emergency Response System" where the propose an emergency response system for handling medical and security related

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emergencies. The proposed system consists of mesh networking enabled IoT prototype units which allow users to request for assistance even in the absence of an Internet connection.

O'Connor, Twohig, and O'Brien present their work “Implementing Electric Consent Aimed at People Living with Dementia and Their Caregivers: Did We Forget Those Who Forget?” where they challenge the current eConsent mechanisms for people living with Dementia.

References

[1] United Nations (2020), World Population Ageing, https://www.un.org/development/desa/pd/news/world-population-ageing-2020-highlights