Track 1.a Introduction: Transformation of the ageing society and its impact on design

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doi: 10.33114/adim.2019.1a

There is increasing recognition of the world growing population of senior citizens, due to the rise in life expectancy and decreased fertility rates. Senior citizens are the most expensive population group for the healthcare system due to the avoidable ageing impact on health degradation. It is therefore necessary to move from the focus on curing to prevention. How can design play an important role to support healthcare prevention for the older adults? Do we need to alter our design tools and methods to be suitable for the design contexts? In this section, we gather a number of interesting papers from the scholarly in the Netherlands, China and Italy. They reported their design research experiences when designing for the specific target user groups.

When designing for societal challenges such as healthcare prevention for older adults, products need to be envisioned for this market. It is about fulfilling the specific needs of the related social groups, the older adults. Often it is hard for them to articulate their needs. Den Haan, Brankaert, and Lu proposed the Leisure Time Canvas as an empathy tool to facilitate older adults to share stories about their leisure activities and hobbies so as to elicit their desires and needs and inspire the following design. This research is especially interesting when the target users are not able to articulate their latent needs. Cui, Hu, Hengeveld and Hummels created a tangible interactive device which can encourage older adults to share their life stories in an intergenerational context. The aim of the research is how to enable and capture the stories of the elderly as well as how younger generations can be involved in the sharing of stories. The paper engages in narrative analysis to understand the kind of stories that were told according to identified themes. Kai, Hu, Hengeveld, Frens, and Hummels reported a case study of co-refining the preliminary design of an interactive system with older participants and discussed the effectiveness of the participatory design approach adopted. They found that sketching was found less effective than expected when refining the digital aspects of interactive systems for older people; the videos were more likely to trigger participants’ comments on the form and interaction than the function of the systems; the animated storyboard was very useful to help the participants quickly understand the usage scenarios of the preliminary design but was not able to fully illustrate some functions and details; the hands-on experience of functional prototype proved to be very effective for the participants to fully understand the concept and facilitate them to refine the system.

When designing for preventive health for older adults, design is expected to follow an interdisciplinary approach to create, research, and implement solutions that create better healthcare solutions for older adults. Designers, technology developers, insurance companies, professional healthcare institutions, caregivers, municipalities, families, neighborhoods, and related others have to work together to create the intended solutions. How can we collectively design for and with this special target group and conduct design research in this complex social cultural context? Gao and Shen demonstrate how they came to an innovative concept to incorporate HealthRelated Quality of Life (HRQOL) with service design for efficient elderly breast cancer patient care in China. This paper presents three design opportunities (1) smart healthcare service system; (2) improvement of service scenarios in the hospital; (3) a life-long service that links communities, families, and
individuals to facilitate breast cancer patient care. This paper demonstrates the importance of integrating knowledge from other domains such as health and collaborating with stakeholders.

It is widely recognized that Product-Service System (PSS) is a promising new business creation approach for societal challenges. It provides profit and non-profit organizations with additional approaches to create differentiable innovations and build competitive advantages. It is not about designing product and product interaction only but empathizes the service-dominant logic. When designing for health prevention for older adults, PSS design has to have profound understanding of the user’s needs, wants, and desires, and also has to adopt a holistic view on value co-creation with internal and external stakeholders together. Is PSS a means or an end when designing for and with older adults or both? Valk, Lovi, Chuang, Lu, Pu and Visser reported their experience in setting up a field experiment with older adults. They present a PSS method in order to engage senior adults with technology for behaviour change research. It aims to promote physical activity among older adults through smart products bearing in mind that these users are generally reluctant to accept technology. It concludes that when aiming at co-designing with and for these target user groups for behaviour change, designers should not just focus on the design process but also focus on how to create a platform to enable such co-design action. They described a PSS method that rely on the expertise and resources from the participating stakeholders in a living lab context to deliver the intended context for research.

Furthermore, the different social, cultural, economic, and political contexts where the older adults live have significant impacts on how these solutions can be designed and implemented. For example, the healthcare experiences in China differ very much from the Netherlands, so are the requirements for healthcare prevention solutions. What can we learn from these differences and design accordingly? Pei, Sedini and Zurlo present the results of an ongoing project on improving “walkability” of the city for elderly people in Italy. To promote active aging. The initial stage of the research project is reported which consists of a thorough literature review and analysis of 31 cases.

Enjoy reading!