ORAL SESSION 3: PERSONAL MOBILITY

Co-creating a mobility app with and for older adults to go out $\mathsf{F}.\ \mathsf{Li}\ \&\ \mathsf{Y}.\ \mathsf{Lu}$

Li & Lu (2020). Gerontechnology 19(suppl); https://doi.org/10.4017/gt.2020.19.s.70091

Purpose Within senior populations, mobility is a crucial element to improve life satisfaction and could be a precondition for active healthy aging (Newbold et al., 2005). Outdoor mobility, including physical ability to move and any means of transportation, have become significant to maintaining an independent life and quality of life (Mollenkopf et al., 2004). Nowadays, there is an increasing demand of capability for older adults to adopt information and communication technologies (ICTs) (Vaportzis et al., 2017). However, technology adoption by older adults is still limited, yet they are eager to learn how to use these ICTs related products and services. Designing for technology adoption by older adults is still a challenge (Heart & Kalderon, 2010). This paper investigates how older adults can be engaged in the design process of a digital application which improves their daily mobility. The Dutch mobility service called 'stUmobiel' was taken as a design case study. The research goal is the design of an application in collaboration with stUmobiel senior users which promotes the adoption of digital services used to access mobility activities. Method Two design iterations were conducted, involving four stUmobiel senior users. Co-creation was used as the design methodology. In the first design session, four older adults participated and shared their needs. They collaborated with the designer to create the initial concept. In the second design iteration, the digital application was animated on screen to mimic its functionality and usage. Results and Discussion From the design process, we found that personalizing the functionalities encouraged the older adults to use the application. Artificial intelligence techniques can be used to predict the service needs of the seniors based on their historical mobility data. By adopting the cocreation process, the users' knowledge, needs and expectations will be elicited, forming the optimal way to meet user demands.

References

Heart, T. & Kalderon, E. (2010). Older adults: Are they ready to adopt health-related ICT? International Journal of Medical Informatics, 82(11), e209-e231. https://doi.org/10.1016/j.ijmedinf.2011.03.002

Mollenkopf, H., Marcellini, F., Ruoppila, I., Szman, Z., Tacken, M. & Wahl, H. (2004). Social and behavioural science perspectives on out-of-home mobility in later life: findings from the European project MOBILATE. European Journal of Ageing, 1(1), 45-53. https://doi.org/10.1007/s10433-004-0004-3

Newbold, K., Scott, D., Spinney, J., Kanaroglou, P. & Páez, A. (2005). Travel behavior within Canada's older population: a cohort analysis. Journal of Transport Geography, 13(4), 340-351. https://doi.org/10.1016/j.jtrangeo.2004.07.007

Vaportzis, E., Giatsi Clausen, M. & Gow, A. (2017). Older Adults Perceptions of Technology and Barriers to Interacting with Tablet Computers: A Focus Group Study. Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.01687

Keywords: mobility, older adults, co-creation, technology adoption **Address**: Eindhoven University of technology, Eindhoven, the Netherlands

Email: f.li@tue.nl