Warm technology: A human perspective in design for and with people with dementia
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Purpose The number of people with dementia grows with the increase of older adults, causing various challenges. In this, technology can play an important role in supporting the everyday lives of people with dementia and their surroundings. Studies including technology, however, often have a deterministic focus on the technology intervention. We aim to provide a new perspective, Warm Technology, that is focused on an inclusive approach that starts with the person with dementia and views them as unique individuals rather than the characteristics of their condition (Lazar, Edasis & Piper, 2017). We define Warm Technology as non-pharmaceutical technological interventions that support quality of life and wellbeing in dementia (Brankaert, 2016). The focus of this type of technology is on supporting and enhancing human potential, wellbeing and connectedness, using technology that is highly user-friendly, non-intimidating, and personally empowering. Warm technology challenges traditional notions of technology as being cold, impersonal, complicated, or exclusively focused on functional support. With this focus we want to apply a person-centered approach (Fazio, Pace, Flinner & Kallmyer, 2018) in the design of technological interventions. **Methods** In studying the design of warm technology, we utilize design research in the dementia care context. Design research allows us to conduct research with artefacts, as proposals of warm technology, and evaluate these in co-design with people with dementia, their families and professional caregivers (Brankaert, 2016).To position our research we follow a design-driven Living Lab (Brankaert & Den Ouden, 2017) approach, to iteratively develop and evaluate prototypes in the real-life context of the environment were people with dementia live. **Results & Discussion** Reflecting on this approach we designed different type of technology following the perspective of warm technology, which are less screen focused, easier to use and incorporate tangible elements. For example, we developed the Homing Compass, a compass that always points home to empower people with dementia that are lost in public space. This design avoids the use of screens or unnecessary features and aesthetically represents wayfinding in a user-friendly way (Figure 1). Additionally, it is used by people with dementia directly, where often technology excludes them. Towards the future we aim to develop the notion of Warm Technology, build scientific evidence to support the perspective and define it as a powerful addition to current technology developments for the everyday lives of people living with dementia.

References

Brankaert, R. & Den Ouden, E. (2017). The design-driven living lab: a new approach to exploring solu-tions to complex societal challenges. Technology Innovation Management Review, 7(1). Retrieved from https://timreview.ca/article/1049.

Brankaert, R. (2016). Design for Dementia – A design-driven Living Lab to involve people living with de-mentia and their context (PhD Thesis). Eindhoven University of Technology.

Fazio, S., Pace, D., Flinner, J. & Kallmyer, B. (2018). The Fundamentals of Person-Centered Care for Individuals With Dementia. The Gerontologist, 58(1), 10-19. https://doi.org/10.1093/geront/gnx122.

Lazar, A., Edasis, C. & Piper, A.M. (2017). A Critical Lens on Dementia and Design in HCI. Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems – CHI '17, ACM Press.

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Figure 1. The Homing Compass prototype