PAPER

Sensors and Monitoring

Y. VERMEER, P. HIGGS, G. CHARLESWORTH. Surveillance for dementia safety: unclear categories and old designs. Gerontechnology 2018;17(Suppl):119s; https://doi.org/10.4017/gt.2018.17.s.115.00 **Purpose** There is a growing availability of surveillance technologies (ST) that could be employed by people with dementia to remain independent and safe[1]. ST are often placed into the category of assistive technologies[2]. Marketers have begun to recognize the importance of ST and numbers of such technological products are increasing accordingly online[3]. However, there is no clear categorization of these products[4], and family caregivers often do not purchase, or keep using ST[5]. This is perhaps because the needs of people with dementia and family caregivers are often unexamined[6], or due to the focus of universal ST products being precedents of its earlier role in prisons[7] [8]. We aim to provide a typology of existing ST available internationally and to distinguish between those products focused on people with dementia and their caregivers, and those reflecting the needs of the manufacturers. **Method** We used a scoping review to identify the needs from people with dementia and family caregivers towards ST. Then an environmental scan gathered information via a questionnaire about international ST sold online. ST (N=383) was surveyed on the product's functionality, availability, intended user, price, and the provider's country origin, business size, and marketing materials used. Combining these approaches led to a categorization matrix of ST. **Results & Discussion** Huge technological investments are made in the ST market, however, the reality is that most products sold by cottage industries do not address the needs of people with dementia and family caregivers. We argue that most of the ST on the market are not assistive but rather can be placed into two separate categories. The first category contains ST that are too small, have a passive alarm, limited amount of features, and might be stigmatizing (e.g. wearable trackers with only an alarm button). The second category lists older products that are usually too big, placed in the home, intrusive, and record certain data which might result in privacy issues (e.g. floor mats or video cameras). This is unsurprising given that the development of ST in the field of dementia care is connected to the role of earlier surveillance in wider society and its use in security. Hence professionals, providers and policymakers need to be careful about distinguishing between the ST and the needs that they are attempting to meet when considering the usefulness of investing in such technologies.

References
1. Niemeijer AR, Frederiks BJ, Riphagen II, Legemaate J, Eefsting JA, Hertogh CM. Ethical and practical concerns of surveillance technologies in residential care for people with dementia or intellectual disabilities: an overview of the literature. Design. 2010;22(7):1129–1142
2. Topo P. Technology studies to meet the needs of people with dementia and their caregivers a literature review. Journal of Applied Gerontology. 2009;28
3. Wan L, Müller C, Randall D, Wulf V. Design of A GPS Monitoring System for Dementia Care and its Challenges in Academia-Industry Project. ACM Transactions on Computer-Human Interaction. 2016;23(5):1–36
4. Schulz R, Wahl HW, Matthews JT, De Vito Dabbs A, Beach SR, Czaja SJ. Advancing the aging and technology agenda in gerontology. Gerontologist. 2015;55(5):724–734
5. Robinson L, Brittain K, Lindsay S, Jackson D, Olivier, P. Keeping In Touch Everyday (KITE) project: developing assistive technologies with people with dementia and their carers to promote independence. International Psychogeriatrics. 2007;21(3):494–502
6. Lauriks S, Reinersmann A, Van der Roest H. Review of ICT-based services for identified unmet needs in people with dementia. Aging Research Reviews. 2007;6(3):223–246
7. Kenner AM. Securing the elderly body: Dementia, surveillance, and the politics of "Aging in place." Surveillance & Society. 2008;5(3):252–269
8. Marx GT. What's New About the "New Surveillance"? Classifying for Change and Continuity. Surveillance & Society. 2002;1(1):9–29