Housing - Building - Daily living AAL for mild cognitive impairement

P. JACKSON, A. HWANG, A. ASTELL, A. MIHAILIDIS, L. NYGÅRD, A. SIXSMITH. AAL-WELL that ends well: International transdisciplinary research into ambient assistive living technology for older adults with mild cognitive impairment. Gerontechnology 2016;15(suppl):85s; doi:10.4017/gt.2016.15.s.840.00 Purpose The Ambient Assistive Living Technologies for Older Adults with Mild Cognitive Impairment (AAL-WELL) project was funded to explore how innovative technologies can support daily activities among older adults (OAs), particularly persons with mild cognitive defects (PwMs), to allow them to live more independently. Method In order to properly consider multiple dimensions of this complex social and technological issue, AAL-WELL was designed to be a transdisciplinary effort. Our team consists of representatives from gerontology, sociology, rehabilitation engineering, occupational therapy, psychology, and computer science from four universities situated in three countries (Canada, Sweden, U.K.), and has included cooperation with community partners. In addition to work done by teams locally, we have facilitated collaboration and understanding by holding monthly online meetings, and annual in-person workshops. We have also encouraged graduate students to spend time working directly with project faculty at other sites. Common understanding was bolstered by analysis and discussion of the disciplinary models used by our group members. Results & **Discussion** Our peer-reviewed publications contribute a broad base of knowledge to consider this topic. This has included categorization of the ambient assisted living technologies of interest to PwMs which are currently available and under development, and how they have changed over time¹. We have looked at current understanding of mild cognitive impairment, which can vary greatly between countries², as well as the ambiguity inherent in a diagnosis of MCl³, which can be interpreted very differently as being 'normal', 'non-normal', or 'pathological'. Our group has explored how technology can be designed to meet the individual needs of PwMs and their informal care partners (ICP), such as family members⁴. We have also identified daily activities which are prioritized by PwMs⁵, showing an emphasis on socialization and activities (varying by individual) which support a meaningful life. Together, these results provide clear direction for future research and technological development. We have identified the key role played by context (including physical, social, everyday technology, and informational aspects) in producing challenges and/or solutions for PwMs in everyday life activities. Of particular note is how leaving the home can significantly increase the complexity of activities for PwMs due to considerations such as ensuring the home is secure, and what to do if disoriented while travelling. Another important consideration is the bi-directional nature of care, with OAs both contributing and receiving care. Technologies that mediate relational tensions can help as roles and relationships transform over time. Finally, our dedication to a transdisciplinary mode of collaboration has supported shared understanding throughout our joint efforts, and provided a robust foundation for future work in this area where the interaction of human and technological factors plays a crucial role.

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