## **D** a m a n t

J. DAMANT, P. FREDDOLINO, M. KNAPP, M. ELLIS, E. MITLETON-KELLY. Does ambient intelligence lead to e-inclusion of older people? Gerontechnology 2010;9(2):207; doi:10.4017/gt.2010.09.02.293.00 **Purpose** The threat of isolation from mainstreamed economic, cultural and civic life is a driving force behind policy initiatives which promote and fund the research, development and deployment of ambient intelligence for older people. The European Commission (EC) invests heavily in research programs developing new information and communication technologies (ICT) to enable older people to successfully carry out their activities of daily living<sup>1,2</sup>. However, the question arises whether these new ICT methods designed for older people are addressing the fundamental issue of e-inclusion. The MonAMI approach hypotheses that when ICT services designed for older people employ mainstreamed devices, and if older people accept and use these ICT solutions, this will facilitate their inclusion into the information age. Method The Mainstreaming of Ambient Intelligence (MonAMI) project is developing ambient intelligent services based on open source technology which can be used with mainstreamed devices (e.g., web browser, mobile telephone, touch screen). Services include monitoring and alert systems which allow users to check, control, and be notified of the status of their home environment (e.g. opening and closing doors, turning on and off lights) through an accessible user interface. MonAMI services also include a range of functionalities which allow caregivers to remotely monitor the safety of their loved-ones, such as a presence alert which sends a notification to caregivers if the vulnerable person is out of a 'safe range'. Two rounds of pilot testing were conducted in six laboratory settings across Europe. Older and disabled users were invited to try out the MonAMI services in a controlled environment, during which they were interviewed about their previous use of mainstream ICT and whether they felt that MonAMI services could help them in various domains of their every-day life. A planned 'living lab' evaluation will be conducted in 2010. Older people with at least one disability will have MonAMI services installed in their home for a minimum of six months. Before the installation of the services, each participant and their caregivers will be interviewed individually to establish their baseline level of ICT-use and then a second time to assess any changes. Results & Discussion The literature demonstrates<sup>3,4</sup> that older people more readily adopt ICT which resemble devices they are already familiar with (e.g. telephone, television). The development of MonAMI services incorporates this ideology and responds to justified criticism of earlier ambient living 'solutions'; blaming poor uptake-levels on the design of ICT services and devices which is yet to fully appreciate the complexity of older people's needs<sup>56</sup>. The results of the pilot tests demonstrated that compared to non-users, older people who previously used email and were generally enthusiastic about trying new technologies perceived that MonAMI services could be useful in controlling their physical home environment and meal preparation. The presentation will include lessons learned from these pilot tests and possible solutions for improving the adoption of ambient solutions by older people with little or no experience with ICT.

## References

- 1. Timmers P. Eu e-inclusion policy in context. Info 2008;10(5/6):12-19
- 2. Ageing well in the information society. An i2010 initiative. Action plan on information and communication technologies and ageing. Brussels: Commission of the European Communities; 2007
- Sokoler T, Svensson MS. Embracing ambiguity in the design of non-stigmatizing digital technology for social interaction among senior citizens. Behaviour & Information Technology 2007;26(4):297-307
- 4. Anderson B. The value of mixed-method longitudinal panel studies in ICT research: Transitions in and out of 'ICT poverty' as a case in point. Information, Communication & Society 2005;8(3):343-367
- 5. To be part of the information society. Brussels: Commission of the European Communities; 2007
- Selwyn N, Gorard S, Furlong J, Madden L. Older adults' use of information and communications technology in everyday life. Ageing and Society 2003;23(5):561-582

Keywords: E-inclusion, ICT, older people, ambient intelligence

Address: London School of Economics, UK; E: j.damant@lse.ac.uk