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## **Keynote 5: Digital Technologies to Support Older Adults Self-managing Health and Wellbeing – End user experiences and Lessons Learned**

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### **Abstract**

Globally, human populations are ageing and as a result there has been an elevated interest in understanding the factors that may support the maintenance of independent living and quality of life of older adults. Smart homes have significant potential to enhance the lives of older adults, extending the period of healthy ageing, through monitoring wellbeing, detecting decline and applying interventions to prevent or slow down this decline. It is also recognized that empowering individuals to self-manage their own health and wellbeing will result in more cost-effective healthcare systems, improved health outcomes and will encourage healthy individuals to remain that way.

This talk discusses findings from a number of ongoing studies carried out by the NetwellCASALA research centre examining the design and evaluation of health and wellness technologies for older adults. From sophisticated smart homes collecting longitudinal behavioural data, to tablet applications, the attitudes of older adults towards technologies, self-management, and various data visualisations will be discussed, in addition to the effects such technologies have had on the wellbeing of study participants. Our findings contribute to a greater understanding of older adults' attitudes and behaviours in relation to wellbeing self-management that can facilitate the creation of new, personalized health and wellbeing interventions for this population.

### **Introduction**

Julie's research is in the field of Human Computer Interaction (HCI) with a focus on health and wellness technologies for use by older adults and healthcare professionals. In her current position as Research Fellow at NetwellCASALA, Julie leads HCI research that crosses the fields of ambient assisted living, falls prevention, emotional wellbeing and chronic disease management. Julie is a Principal Investigator on a number of EU projects, including the H2020 project ProACT, examining integrated care for older people with multiple chronic conditions. She is also PI on a project examining how technology can support older adults transitioning from hospital to home, including how such technology and the resulting data can be used by healthcare professionals in practice, that involves partners including the Health Service Executive of Ireland and Fujitsu. Julie oversees all user-centred application design and development at NetwellCASALA. Her current research is examining (1) the effectiveness of various types of feedback to convey health and wellbeing information to older adults, (2) behaviour change techniques to encourage self-management and (3) measuring the effectiveness and impact of such technologies in practice.