Y. LU, R. BRANKAERT, X. REN, P. JIA, S.A.M. OFFERMANS, H.A.H. NAGTZAAM. ***Designing for healthy and active ageing with intelligent technologies.*** *Gerontechnology 2016; 15(suppl):48s*; doi:10.4017/gt.2016.15.s.746.00 **Purpose** Ageing is an important societal problem that we are facing today. According to WHO, health refers to physical, mental and social well-being while active ageing refers to the process of optimizing opportunities for health, social participation and security in order to enhance quality of life as people age[1]. Earlier research has shown that intelligent technologies can support elderly to cope with the changes of ageing and remain healthy and active[2]. We recognise three important challenges (*Figure 1*) when designing for healthy and active ageing using intelligent technologies. First, to what extend can we design for elderly technology acceptance? Second, How to design for and with elderly in this context to enable behaviour change? Lastly, ageing is a wicked problem. It requires a multi-stakeholder approach. How to design for and with the multi-stakeholder in this context? Through a number of design cases we aim at creating design guidelines for designing for healthy and active ageing with intelligent technologies. **Method** We conducted a number of design cases with specific focuses on the three identified challenges. In case 1 we explore the use of a Senior Technology Acceptance Model (STAM) especially social relationship[3] when designing for technology acceptance in our context. In case 2 we explore the use of the persuasive principle 'reciprocity'[4] to design for and with elderly. In case 3 we explore the use of probes and co-creation approach to create a shared value among the involved stakeholders. Through qualitative analysis we derived some design guidelines for designing for healthy and active ageing using intelligent technologies. **Results & Discussion** The design cases suggest that (social) participation is an important enabler for designers to work with when designing for healthy and active ageing using intelligent technologies. It can lead to better technology acceptance through intergenerational technology learning, better motivation towards the intended behaviour change via reciprocal support, and better aligned multi-stakeholder network via co-creation and probing.

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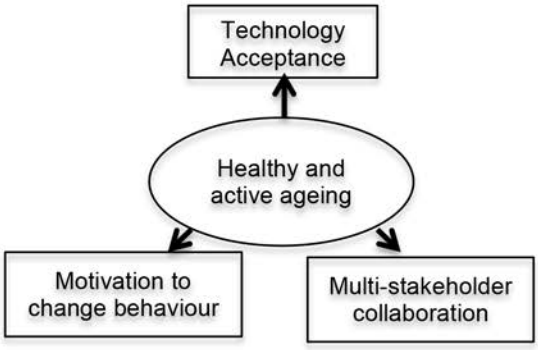

Figure 1 Challenges in designing for healthy and active ageing