A. PEINE, L. NEVEN (Conveners). ***Challenges of implementing gerontechnology for personal health.*** *Gerontechnology 2014;13(2):121;* doi:10.4017/gt.2014.13.02.059.00 **Participants** L. Neven (Netherlands), M. Gövercin (Germany), A. Peine (Netherlands), G. Terlouw (Netherlands) **Issue** This session focuses on two ongoing and interrelated changes in the nature of health innovation targeted to support active and healthy aging and addresses associated challenges for the implementation of health technology: (i) In aging societies, health products and services increasingly target the prevention of and coping with chronic diseases. As a consequence, they increasingly operate in the context of private homes and larger 'infostructures' (blended care, eHealth, mHealth) and blend with other non-health related devices. In the context of such ICT-driven 'personal health systems' (PHS), health technologies immerse into the technological environments in the homes of older people, and meet them as both patients and consumers. (ii) The aging baby boomers, as a comparably technology savvy group of older technology users, challenge existing stereotypes of passive and inept older technology users[1]. For many of them, choices about the purchase and domestication of new technology are a natural part of expressing their lifestyle and defining their identity, as recent UK data suggests[2]. It includes health technology choices. **Content** The implementation of health innovations is a major challenge. New devices struggle to find their place in the practices and routines of various users including older persons, their families, and care workers. We shed light on these issues to help successfully innovate and implement health technology in domestic environments. The 1st paper concerns theoretical gains that can be made to understand implementation and use of domestic health technology by combining conceptual and theoretical insights from social gerontology and science & technology studies with gerontechnological theory. The 2nd paper presents the results of a usability trial with an Ambient Assisted Living (AAL) service, including 35 private households (n=35), and specifies what drives acceptance of the systems. The 3rd paper investigates attitudes of healthcare professionals toward eHealth using a questionnaire based on the UTAUP (Unified Theory of Acceptance and Use of Technology) model among 171 Dutch nursing students. The 4th paper explores how the use of health technology in private homes affects its users. **Structure** The 4 paper presentations are followed by Q&A and a general discussion. **Conclusion** Together the papers shed light on emerging data and values and help us assess the viability and usefulness of PHS innovations for older persons and specify implications for research on and design of Gerontechnology at the intersection of health and consumer products.

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Keywords: gerontechnology, user acceptance, user involvement, social gerontology
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L. NEVEN, A. PEINE. ***Towards socio-gerontechnology: The age-technology nexus at the intersection of social science and gerontechnology.*** *Gerontechnology 2014;13(2):121-122;* doi:10.4017/gt.2014. 13.02.144.00 **Purpose** This paper describes an investigation into the theoretical gains that can be made by combining conceptual and theoretical insights harvested from social gerontology and related scientific and technological studies when combined with gerontechnological theory. **Method** This paper aims to make a theoretical contribution. It does not present any new empirical material, but draws on empirical material from previously published studies. **Results & Discussion** This paper presents a theoretical model which simulates the relationship between designers and users as reciprocal and evolving over time[1]. The connection between design and use is made via the script concept[2] whereas the connection between use and design is made via the user representation concept[3] (both pertaining to actor-network theory). Acceptance is seen as dependent on technological literacy, technology generations[4], perceived stigmatisation[5], perceived benefit[6] and domesticability[7] of a technology. Older users are seen as potentially active actors who are enabled and constrained by gerontechnologies at the same time[5,7]. However, older users are also constrained within their

context (having to act their age, bounded within pension systems, care relations, etc.). This evolution of the connection between older users and the technology can subsequently be followed over time, which allows for conceptualizing the life course[8] as a user-technology hybrid. While our model is essentially circular, it does draw attention to the fact that user representations often do not stem from information about actual use practices but from other social and cultural sources, which illustrates the need to engage with theory from social gerontology. **Results & Discussion** This model sensitises us to the critical analysis of the origins of user representations of older people, how the constraining and enabling effects of age scripts[5] are designed and the ability of older people to act as active technology users who change and circumvent such scripts. It thus allows a deeper and theoretically more refined understanding of the ageing-technology nexus. We explore implications for policy making, health technology assessment and design of our model.

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Keywords: communication & governance, theory, gerontechnology, social gerontology, script
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M. GÖVERCIN. ***Assessing the usability of an AAL-system within 35 seniors' homes in a clinical field trial.*** *Gerontechnology 2014;13(2):122-123*; doi:10.4017/gt.2014.13.02.109.00 **Purpose** Despite many innovative approaches and ideas, there are on the market just a view well examined services for supporting a self-determined life (AAL-Services). This clinical field trial (SmartSenior@home) was funded by the German Federal Ministry of Education and Research, and its primary goal is to examine the usability of the SmartSenior system that has been developed over a 3-year, user-centered development and integration process[1,2]. **Method** A variety of home based assistive services, like communication with relatives or an assistance center, meal service, or health motoring are represented among Ambient Assisted Living (AAL), and telemedicine platforms. Service delivery is established through a service portal, displayed on a TV, and controlled by a touch pad or remote. Sensors at home detect situations like unattended, open doors and give feedback to the user via a smart phone or wrist watch. The prospective cohort study took place in 35 apartments with 35 older adults between 55-88 years of age. During the study, the usability, user acceptance, and attractiveness of the SmartSenior services was examined by log data analysis, in-home interviews, cognitive assessments, and questionnaires regarding fine motor skills, mobility, and usability. Measuring device usability was implicit, as part of the usability evaluation. **Results & Discussion** The average acceptance rate of offered services was good to very good. The most frequently used services were health related, such as video conversations with the telemedicine center or blood pressure checks. Technical system usability and technical support were well accepted. There were no adverse effects in the elderly resulting from the use of the devices. Nevertheless technical stability, installation, and the cost of multi-platform AAL-Systems have to be improved in order for them to be ready for the market.

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Keywords: housing and daily activities; ambient assisted living; usability; smart home
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A. PEINE, E. MOORS. ***Valuing health technology: New value spaces for personal health systems to support active aging.*** *Gerontechnology 2014;13(2):123;* doi:10.4017/gt.2014.13.02.104.00 **Purpose** In this paper, we examine whether current practices of Health Technology Assessment (HTA), are suitable to support innovation governance and policies in personal health systems (PHS). We focus on the implicit representations of users and their position in the innovation process that underlie established HTA practices, and we explore how these representations are conducive to health technology decisions that allow older people to live meaningful and active lives. Our analysis builds on Callon's recent distinction between prosthetic and habilitation social policies. **Method** The paper revisits the results of two case studies that we conducted in Point-of-Care Diagnostics and care robot service platforms operating in domestic environments. For the first study, the technical, medical, and clinical literature and review articles on Point-of-Care diagnostics and biosensor technology were analyzed. Additionally, we interviewed 11 representatives of organizations in the Dutch health care system, including medical specialists, scientists, business developers, health policy actors, secondary patient care coordinators, health insurance employees, and general practitioners. For the second study, we investigated the design processes of two PHS service robot platforms and explored how designers address the challenges of technology at the intersection of health innovation and consumer products. In particular, we conducted 8 comprehensive interviews with key participants in the projects. For both studies, we applied a grounded-theory inspired qualitative approach using an open-coding scheme. **Results & Discussion** By contrasting insights from these cases, we demonstrate how a different logic of addressing values in innovation feeds into either prosthetic or habilitation policy decisions about health technology. Based on this analysis, we demonstrate that HTA practices need to re-think the position of older persons in relation to emerging health innovations in order to support active and meaningful aging.

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Keywords: communication & governance, innovation, health technology, user representation
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G. TERLOUW, J.T.B. VAN 'T VEER, W. KOOISTRA, A. DIJKSTRA. ***The attitude of future nurses towards technology.*** *Gerontechnology 2014;13(2):123-124;* doi:10.4017/gt.2014.13.02.139.00 **Purpose** The implementation of innovative health technologies is a major challenge for gerontechnology. New technologies struggle to find their place in the practices and routines of various users, including different kinds of healthcare professionals, like nurses. The attitudes of healthcare professionals towards technology (eHealth) and their eHealth literacy are expected to influence the implementation process. This study focusses on these issues. **Method** A Dutch questionnaire designed for this study, based on the UTAUT[1] (Unified Theory of Acceptance and Use of Technology) and a Dutch version of the eHeals[2 3] scale to measure eHealth literacy, was sent to Dutch nursing students of the NHL Hogeschool, University of Applied Sciences. In total, 171 students participated. **Results & Discussion** The attitude of future nursing professionals towards technology is generally positive, on 11 of the 19 UTAUT-items the average score was above 4 on a 6-point-scale. Only on the two items based on the determinant 'voluntariness of use' the average scores scored a little below 3.3. Cronbach's alpha was 0.85 for the 19 items based on the UTAUT-model. On the eHeals, the future nursing professionals scored above average; all items scored an average above 3.5 on a 5-point-

Likert-scale. Cronbach's alpha was 0.84 for the 8 items based on the eHeals. On an open question, the future-nursing professionals indicated that there is too little attention to new technologies within their education. More attention to new technologies in nursing education could lead to more positive attitudes towards new technologies in professional work practices. Based on the results, the developed questionnaire seems to be a good instrument for use in future studies. More studies on different kinds of healthcare professionals in different healthcare practices will be done in the near future, to develop a more complete view of attitudes towards technology and eHealth literacy.

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Keywords: health & self-esteem, attitude towards technology, UTAUT, eHealth literacy, implementation.

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