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A risk to privacy or a need for security? Digital domestic technologies in the lives of young adults and late middle-agers

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Abstract

This chapter discusses the ways young adults and late middle-agers define their relationship with digital technologies in the contexts of housing and living. By analysing data from eight (8) focus group discussions, this chapter identifies socially shared ideals regarding consumption of digital technologies typical of young adults and late middle-agers as well as ideals that connect people over generational and life course boundaries. Young adults interpret digital technologies through concepts of time management, self-control and privacy. For late middle agers, technologies are conceptualised with meanings related to personal skills, social relationships and security. All participants negotiated consumption of technologies with meanings related to need, necessity, vanity and desire.

Introduction

In studies of consumption, it has been argued that different generations possess unique values and attitudes that significantly affect their daily consumption choices, preferences and behaviours (Carr et al., 2012; Chhetri et al., 2014; Eastman and Liu, 2012; Parment, 2011, 2013; Valentine and Powers, 2013). As a consequence of the development of digital devices, consumption is digitalising and new digital solutions are being provided for consumers regardless of age (Dholakia, 2012). This chapter investigates how digital technologies are perceived by young adults and late middle-agers in daily contexts of housing and living in Finland. More specifically, we investigate what kinds of socially shared meanings young adults and late middle-agers, understood as members from different generations, have towards consumption of digital technologies in domestic environments.

Digitalisation of domestic environments refers to processes where new technologies, such as smart home solutions and other digital devices from smart phones to robot lawn movers, are intertwined with daily practices of home, housing and living (Balta-Ozkan et al., 2014; De Silva et al., 2012; Dholakia, 2012). First, we discuss concepts of life course, generations and the digitalisation of domestic environments in terms of attitudes towards digital technologies. Second, we analyse qualitative data from eight (8) focus group interviews with 68 participants. Third, we discuss the empirical results with respect to new approaches to generations and the marketing of digital devices, arguing that values and attitudes towards technologies are affected by both shared generational aspects and individual life-course events. By utilising data collected in the Finnish Housing Fair environment, the chapter combines aspects of sociology and marketing with qualitative, interview-based research.

Life course stages and new technologies

In life-course literature, the stages of life course are usually classified into young adulthood (years 18 to 30), middle age (years 31 to 45), late middle age (years 46 to 65) and old adulthood (years 65 and over) (Hutteman et al., 2014). Each life stage involves particular transitions, such as changes in roles and statuses and readjustments to new social roles and expectations (Hutchison, 2011). Young adulthood is characterised by identity formation, formation of romantic relationships, and the significance of peers. In late mid-life, transitions occur in work-life balance, in relationships towards ageing parents and children leaving home (Hutteman et al., 2012). In late mid-life, leisure time typically increases (Helson et al., 2006; Kokko, 2010). Consumer decisions, based on economic resources, social capital, health and wellbeing, lifestyle values, and aspirations (Beer and Faulkner, 2011) are therefore necessarily affected by the life-course stage.

Use of new technologies is typically influenced by life experiences. Although late middle-aged adults are familiar with technologies such as the telephone, television and radio, most of them have learnt to use computers, mobile phones and the Internet as adults, and are less familiar with them than young adults who have grown up with these technologies (Green, 2010: 137; Haddon, 2005). In previous research, older adults are often represented as lacking skills in using new technologies (e.g. Barnard et al., 2013), and for expressing less comfort and ease in using technology, and less confidence in their abilities to use new technology (Chen and Chan, 2011; Smith, 2010). For older adults, communication with family and loved ones, as well as access to social support have been the most common motivations for computer and Internet use (Thayler and Ray, 2006). Other motivations include a safety link to others (Ling, 2004) and a way to support independent living (Mikkonen et al., 2002).

Today, the boundaries and lengths of each life stage are flexible and life course transitions, such as transformations in roles and expectations in working life, do not necessarily appear as linear. People have ever more possibilities to transform and adjust their own biographies in non-conventional ways (Beck and Beck-Gernsheim, 2002; Izuhara, 2015; Kohli, 2007). For young adults, for instance, accessing home ownership is often considered a rite of passage to full adulthood, backed by a stable income, career prospects and the need for space for a growing family (Izuhara, 2015). Today, many life course transitions, including leaving the parental home, family formation, and purchasing a home, which used to occur in the 20s, now often occur in the 30s. In old adulthood, as general living standards and life expectancies have risen, people have more possibilities to pursue a lifestyle that addresses quality of life and self-expression (see also Koivula et al., 2015). New technologies and social media applications focused on self-expression, for instance, provide opportunities for creating a life-course of one's own with individualised and customised choices.

Generational archetypes

Studies of generations argue that consumption practices and use of new technologies are influenced by shared generational experiences. The concept of 'generation' refers to a group of individuals who have experienced similar historical events in their early adulthood that later constitute shared experiences or consciousness (Karisto, 2007; Mannheim, 1952; Purhonen, 2007). Generational experiences are said to remain unchangeable throughout the life course, although typically generational experiences are influenced by life course transitions as well (Carr et al., 2012; Meredith and Schewe, 1994; Ryder, 1985). 'Generation' is also applied in marketing studies to understand consumer practices such as buyer involvement, brand loyalty and lifestyle segments of generations, arguing that generations are distinguishable in orientations towards adopting technologies, sustainable consumption practices, and early

adoption of new products (Chhetri et al., 2014; Eastman and Liu, 2012; Parment, 2011, 2013; Syrett and Lamminman, 2004; Valentine and Powers, 2013).

Studies of generations typically argue that each generation shares distinctive features, such as values and attitudes that would be somewhat typical for members of each generation. Members of Generation Y, born approximately between the years 1979 and 1994, aged 23 to 36 in 2015, have spent their early adulthood in a period of economic growth and emergence of new media, and consequently appear as individualistic but well-educated and technologically skilled with positive orientations towards consumer culture and new technological innovations (Paul, 2001). Generation Ys are often illustrated as ‘digital natives’ who possess positive attitudes towards new technologies and carry well-developed technological skills. Also called the ‘Millennials’, Generation Ys have grown up in a global mind set with unrestricted communication where mobile devices are instantly used for social networking (Parment, 2011).

Members of Generation X, born approximately between the years 1964 and 1978, aged 37 to 51 in 2015, are rarely identified as a discrete group of individuals in the Finnish context and have not been empirically investigated to the same extent as other generations. Generation Xs lived their youth during the 80s and became adults in the 90s and consequently encountered the financial recession in adulthood; hence the lives of Generation Xs have been influenced by economic uncertainties (Smola and Sutton, 2002).

Prior to Generation Xs, Baby Boomers, born in the Finnish context between the years 1945 and 1950, represent the first post-war generation in western societies. Growing up during a period of revolutionary societal changes, Boomers are often associated with untraditional and idealistic values (Karisto, 2007; Purhonen, 2007); marketers interpret Boomers as an extravagant and brand loyal generation. Unlike younger generations, Boomers were not

influenced by technological innovations until the age of 35 to 40, indicating that they were not similarly engaged with emerging digital technologies as younger generations.

In Finland, those born in the 60s and currently aged approximately 50 to 55 are not usually acknowledged as members of any particular or well-defined generation based on international classifications. According to Finnish longitudinal studies, the birth cohort born in the 60s, aged approximately 50 and over in 2015, most value benevolence in the form of the promotion of the wellbeing of close relatives, and universalism in the form of taking care of other people and nature (Pulkkinen and Polet, 2010: 82–83). People aged 50 and over also value safety, implying the security of society, personal relationships, and life in general. As the values of different generations are examined, it becomes clear that orientations towards and shared meanings regarding digitalisation are diverse, indicating the possibility of identifying generational values towards digitalisation of domestic environments.

Digitalisation of domestic environments

Digitalisation of domestic environments refers to processes where daily contexts of housing and living are influenced by digital devices. Technology available to consumers have expanded and consumer markets offer constantly changing products related to the digitalisation of households: new smart home solutions, for instance, are presented to consumers (Balta-Ozkan et al., 2013; De Silva et al., 2012; Ehrenhard et al., 2014). Content creation is not limited only to certain service providers; consumers have become the creators of technology via communication platforms which also aid consumers in organising their lives (Dholakia, 2012: 17). Consumption of technologies occurs in households where socio-cultural resources, as well as family dynamics, significantly influence the use and adoption of technologies (Livingstone and Lunt, 1991). In households, technologies are generally consumed for multiple purposes, including entertainment, online shopping, communication and household tasks. At the moment,

these technologies are becoming digital, indicating that digital devices such as smartphones and tablet computers are used for the management of everyday living.

Often, digital technologies have different meanings for different social groups, and these meanings typically differ by age (Oksman, 2006). These meanings, such as values and attitudes regarding technologies, are typically negotiated, reflected and maintained in social relationships (Bijker and Law, 1992; Kline and Pinch, 1999; Pinch and Bijker, 1984; Selwyn, 2012). In the remainder of this chapter, we investigate socially shared meanings concerning consumption of digital technologies in domestic environments. We also present empirical findings from group discussions to highlight the shared meanings among consumers at different life course stages. More specifically, we investigate:

- I. What kinds of socially shared meanings do young adults and late middle-agers express towards digitalisation of domestic environments, and consumption of new technologies in general, during group discussions?
- II. Can values and attitudes regarding digital technologies shared by members of each generation be interpreted as reflecting a generational experience or do they rather emerge from individual life-course events?

Data and methods

Data

This study analyses qualitative interview data from eight (8) focus group discussions that were conducted in the context of the Finnish Housing Fair¹ in 2015. Four (4) of the groups consisted of people aged 50–65 and three (3) groups of people aged 18–35. One (1) group had both older

¹ The Housing Fair is an annual event in Finland that showcases ongoing trends in the housing industry, such as building, architecture and interior design. The Housing Fair is a set area where the houses are built and decorated for the audience to visit. (www.asuntomessut.fi)

and younger participants. A total of 68 participants attended the discussions. Each discussion, conducted as a semi-structured group interview, included 7 to 12 participants and lasted approximately 60 to 75 minutes.

Participants

About half of the participants belonged to the age group of 18 to 35 year olds (N=31) and the other half to the age group of 50 to 65 year olds (N=37). Over half of the participants were women (N=44). The majority lived in an urban area in an apartment building, and the participants were mainly employed, and held a master's or college degree. In terms of family relations, one third were married or in co-habitation and did not have children living at home; another third were married or in co-habitation with children living at home. The participants were randomly selected to focus groups so that each group contained both women and men. About half of the participants attended the interviews as couples or families. Concerning their socio-demographic background, the participants were a rather homogenous group which indicates that the findings are limited to the urban and educated people with a middle-class background.

Procedure

The data was collected in the following way. First, participants were recruited through an advertisement in a decoration magazine, on the Housing Fair's website and on the website and Facebook site of the research project. In the advertisement, two focus groups based on age definitions were recruited: 18 to 35-year-olds (young adults) and 50 to 65-year-olds (late middle-agers). Out of approximately 200 contacts, 70 participants were selected for the interviews. Selection of the participants was based on the order of registration, and participants were awarded free entrance to the Housing Fair area.

Group discussions were organised in the Housing Fair area. Participants were met at the entrance of the Housing Fair and informed of the basic principles of the study. Participants were given 2 hours to walk around the area, after which group discussions were conducted in a separate room. There were two researchers moderating the discussions, and two researchers made notes about the situation and the participants. After the discussions, participants were asked to fill in a background information form that included questions on socio-demographic variables (birth year, gender, residential area, form of dwelling, occupation, education, and family relationships). The discussions were taped and transcribed, resulting in 146 pages of transcribed text.

Methods

The analysis of focus group discussions in which participants represent a specific group of people, such as young adults or late middle-agers, aims to understand and explain shared meanings that participants produce during discussions (Halkier, 2010; Rabiee, 2004; Thomas et al., 1995). These shared meanings are considered to represent and describe the life stage of each participant and, within these shared meanings, it is possible to understand and explain orientations towards digital technologies among different consumer groups. The group discussions conducted during this research were semi-structured, covering three research areas derived from the literature (Carù and Cova, 2015; Coolen and Hoekstra, 2001; Dholakia, 2012): 1) customer experience related to the Housing Fair, 2) consumption behaviour related to housing, and 3) use of digital technologies in everyday life. The sub-questions varied according to situational factors, such as participants' interests, group dynamics and the conversation process. The transcribed text was analysed with a qualitative content analysis method, which aimed to understand and explain meanings in the context of the text (see Hsieh and Shannon, 2005; Rabiee, 2004).

In the first phase of analysis, all data expressions related to use of technologies were separated from the main text. These data expressions comprised sentences and statements that the interviewees articulated during the group discussions. This analysis produced 121 statements related to use and adoption of new technologies. In the second phase, the raw data expressions were interpreted into upper categories that reflected shared meanings towards digital technologies in domestic environments. In this phase, the sentences and statements were interpreted in terms of barriers and difficulties related to the adoption of technologies. This produced 24 upper categories of shared attitudes towards technologies. In the final phase, the upper categories were combined further into main categories, in order to reduce the number of upper categories. A total of 15 main categories were formulated. In all phases, the analysis was grounded in empirical data expressions and the analysis unit was a sentence or statement articulated by one interviewee.

Results

Among all participants the digitalisation of housing and living aroused shared values and attitudes that varied from rejection to careful optimism towards technologies. Participants reflected on their relationship to technologies in an environment that represented housing and living in terms of the latest innovations where new technologies of housing were characterised as expensive commodities. Many participants interpreted digital domestic technologies as unnecessities in daily life and generally, they aroused more sceptical resistance than positive orientations.

Shared meanings among young adults

During the interviews, it was generally easier for younger participants to reflect on the role of technology in their everyday lives than for participants representing older generations. Many young adults interpreted new technologies, already involved in many aspects of their lives, as

inseparable from daily life. Despite this, many younger people saw obstacles to the use of new technologies in domestic surroundings, relating mostly to adopting and becoming familiar with them. Especially younger female respondents saw use of technology as requiring too much time to become familiar with and hence referred to the use of technologies in general as ‘*time-consuming*’:

I don't want the whole house to be digital. (--) It would take so much time to become familiar with it. (--) My stress level would get higher if I had to know how to use all these. (Female, 33)

If I got used to technology, it would be handy, but of course it takes time to adapt to it first. (Female, 35)

Younger participants also perceived the digitalisation of housing as something they should have control over. The idea that ‘technology takes control over people’ came up among female participants who perceived the domestic environment as something that humans and not machines should have control over. Younger participants understood technology as smart and self-imposed: something that is inherently part of daily life and hence has to be controlled. Controlling the use of technologies was related to time spent with the devices and many shared the viewpoint that technology already occupies too much of their daily lives. Some participants described time spent without digital devices as ‘liberating’ and especially many young participants wanted to ‘shut down’ the technology that is already constantly close to them. For participants in their 30s, it was responsibilities towards work, and for participants in their 20s, responsibilities towards social networks that created the need to control the time spent using technologies.

Many of the younger participants reflected on digital technologies with respect to social relationships; for younger people social aspects of digital technologies were not necessarily perceived as positive. Due to the intertwining of new technologies in domestic environments, maintaining boundaries between personal and social life was perceived as important, especially

by younger females. The idea that *new technologies risk privacy* included negative evaluations of social media in domestic surroundings; from this framework, technologies were not perceived as something that could easily be adapted to private life. Rather, many wanted to make clear distinctions between private and social life with the use of technologies.

Male participants regarded digital technologies above all as consumer goods. New technologies were identified as *incomplete* when they lacked the qualities that would make them worth purchasing. Especially younger male respondents in their 30s identified new technologies as inadequate in terms of functionality and technical characteristics and they wanted ‘to see how they develop’ and not be ‘the first one to buy them’. They were conscious of the marketing and production processes of digital technologies and represented themselves as careful consumers of the latest innovations. This reflects a critical attitude of young males towards purchasing digital technologies in general.

Shared meanings among late middle-agers

Many late middle-agers identified new technologies in domestic surroundings as something they often lack skills to use. Male and female respondents shared experiences of new technologies as difficult and something they need help with. Whereas young adults understood difficulties in adopting new technologies in terms of time management, late middle agers perceived the difficulties as originating from their own inner qualities:

When my computer breaks, I don't know what to do. My kids will help me. (Male, 59)

If I have problems with technology, I need help. It's difficult to solve the problems by myself.

(Female, 52)

I am a technically unskilled person. I have my own support person; he is my son. (Female, 51)

Late middle-agers relied on family members and especially, their children, for help in using technologies. Many older respondents share the perception of their children as ‘digital natives’ who will help them in the adoption and use of technologies. Digital technologies in domestic environments were thus perceived as ‘common’ to the whole family and something the whole family shares together through experiences, meanings, and practices between generations (see also Piper et al., 2016; Selwyn, 2004; Zickuhr and Madden, 2012). The obstacles, and also the motivations, were related to how they are used in interactions between family members, and how the whole family is engaged in their use.

In addition to lack of skills, many late middle-agers recognised characteristics of technologies as not fitting with their lifestyle. In general, older generations, and female respondents in particular, understood technologies as too complicated and dysfunctional and recognised that ‘technologies have to be simple’ in order to fit their own values. From this viewpoint, technologies were not seen as valuable in themselves but only by virtue of their functions:

But I don't want to get it (digital device) for myself, if it's complicated. It has to be good and functional, so that I can utilise it. Making things simple, that's a good thing nowadays. (Female, 53)

In many cases, late middle-agers did not want to see themselves as too dependent on technologies. For older generations, functionality was perceived as a core value for digital devices: digital devices are used for banking, purchasing and shopping, information and communication with others (see also Dholakia, 2012). Dysfunctionality, on the other hand, was conceptualised as a key feature for most devices: ‘Now when it's all digital, the system does not work in our house’ (Male, 52). Also, power cuts were mentioned as a risk factor in digital technologies. Whereas younger respondents understood technologies as developing devices that are constantly under construction, among older generations, it was scepticism towards the qualities of the devices in general that caused the critical attitudes towards them.

Late middle-agers significantly differed from young adults in their viewpoints on *safety*. For older generations, digitalisation was connected to values of safety, such as safety of domestic appliances or safety of housing and living in general. Late middle-agers reflected on safety in terms of their relationships with their own parents, and the connection between digitalisation and safety was associated with old adulthood rather than middle age. Safety, besides referring to the safety of digital technologies, was defined through personal relationships:

In the future, older people can live a longer life with digitalisation... nowadays, it is known that some floors can identify whether a person has fallen or is standing, this kind of increases safety to the living of old people. (Male, 51)

I was thinking of my mom, she lives alone. It would be a good thing to have digital devices that create safety in living. (Male, 51)

For late middle-agers digital technologies represented something that constituted generational experiences and differences between younger and older generations. Although young adults did not recognise themselves as digital natives, for late middle-agers younger adults were represented as the digital generation that utilises new technologies in a different way compared to their own generation. Late middle-agers identified that generational experiences during early adulthood, for instance growing up with a technology in one's 20s, have a significant influence on the ways people use technologies in later life. In their speech, late middle-agers composed generational experiences and boundaries and their identities through technologies:

We belong to that age group that it [technology] didn't belong to our lives when we were in our 30's. When I'm thinking about my own kids, who are 25 to 30, they take a shower with their cell phones. Let alone the kids in school. They live in a totally different world. (Female, 57)

Last year our son announced that he would like to have a television for a Christmas present, he told me all the models and all. Together we went to see it, and he used the television through a tablet... his generation utilises the possibilities in a completely different way. (Female, 63)

Shared meanings among all participants

Despite the fact that participants shared some values, ideals or attitudes that were age or generation specific, attitudes towards digital domestic technologies also connected participants across generation, age and life-course boundaries. Notably, female participants –regardless of age – shared the experience that they are ‘not interested in technology’, and that technologies in general are not a part of their lifestyle. The use of technologies was interpreted as something that people should naturally have an interest in, and in these respondents’ lives, technologies did not have a significant role. These opinions varied from ‘I’m not at all a digi-person’ (Female, 32) to ‘I’m not at all interested in technology, I use it as little as possible’ (Female, 52).

Fears and anxieties related to digital technologies were common among participants regardless of age, generation, life course and gender. Use of new technologies was perceived as a *risk* – not only in terms of power cuts – but also in terms of health, wellbeing and general safety. In addition, unfamiliarity about the health risks that use of technology involves, such as risk of radiation, was mentioned. The use of digital technologies, and especially smart phones, was also conceptualised as *addictive*; digital devices have already become necessities in most people’s lives and therefore ‘you are anxious when it is not in your pocket’ (Male, 65). Digital devices break boundaries in everyday life practices, and in online shopping, for instance, a fear of losing control appeared in some respondents’ speech:

It is very scary. Many of my friends buy clothes every week on the Internet. They just click and it’s very scary, how easy the shopping has become. (Female, 32)

Moreover, respondents in the different age groups identified the *information flow* of digital technologies as *exhausting*. This was especially connected to the use of smartphones associated with the working environment: ‘My phone rings, I am on the phone all day. After that I want to be in a quiet place’ (Male, 57). In today’s lifestyles, people perceived not having technologies at home as necessary for their wellbeing, and especially in the domestic environments, living without technologies was perceived as ideal:

I think the information flow is very exhausting. Now when I have the smartphone, I’m stuck to it all the time. It would be better for me to claim a place in my house which doesn’t involve technology. (Female, 30)

For all participants, not having technologies at home was justified with the idea that ‘people can do it by themselves’. For late middle-agers, managing daily lives without technologies was almost a matter of a pride: ‘I can manage to turn off the light by myself’ (Female, 55) and ‘I can manage to switch the lighting on and off and push the vacuum cleaner by myself’ (Male, 61). Late middle-agers understood technologies in domestic environments as assisting, meaning that technologies will assist the lives of elderly people, with whom they don’t identify. In the lives of young adults, managing their lives without technologies was associated with the future: ‘We will plant such a small lawn that we can cut it by ourselves’ (Female, 27). In both young adults and late middle-agers, a preference for living without technologies was associated and justified with a desire for physical activity.

In the context of housing and living, new technologies are still perceived as a *vanity*. When technologies are presented in domestic surroundings, people do not acknowledge them as necessities but rather as outcomes of the markets. In participants’ speech, a need for technologies is negotiated between concepts of ‘vanity’, ‘necessity’, ‘need’ and ‘desire’. Consumption of technologies is conceptualised in terms of a moral framework (see also Silverstone and Hirsch, 1992) where the use of new technologies is comprehended as

‘splurging on unnecessary’ which, in terms of housing and living, have negative connotations. Simultaneously, this symbolises the profound distinction between consumer desires and normative restrictions, where consuming technologies for hedonistic purposes is conceptualised as morally suspicious (see also Lehtonen, 1998; 224, 229-231; Sarantola-Weiss 2003, 37-39). Therefore, throughout the group discussions, interviewees reassured us and each other of their ability to manage their home without technologies, although they identified the addictive features of them.

Conclusions and discussion

In many previous studies, Finnish people are typically represented as technologically skilled consumers who adopt and orient themselves positively towards new technologies (Desai et al., 2012). When consumption of digital technologies is discussed in groups, digital technologies arouse more negative resistance than positive attitudes. Well-educated, urban and middle-class consumers are very conscious of the markets and the life cycles of products and services, which may result in critical attitudes towards marketing of new technologies. In Finland, consumer attitudes in general, and those of ageing consumers in particular, highlight values and attitudes of ecological and ethical consumption over the values of self-indulgent and hedonistic consumption (Nyrhinen and Wilska, 2012; Wilska, 2002). This, due to understanding digital technologies as expensive commodity goods, might lead to perceiving them as ‘unnecessities’ and ‘vanity’ in daily lives. Additionally, cultural interpretations of technology reflect the binary codes and symbolic good versus bad, and therefore, this can connote the profound tendency of consumers to label technologies as something suspicious (see also Mick and Fournier, 1998; Pantzar, 2000: 242). The study asked whether these values and attitudes reflect generational experiences or if they emerge from individual life events. The perception of digital technologies as a vanity connected consumers regardless of generational boundaries, which might imply that these attitudes are not greatly affected by generational experiences.

Although digital domestic technologies are predicted to expand in the future (Ehrenhard et al., 2014), participants in our study understood the digitalisation of domestic environments as a risk to privacy and general wellbeing. Moreover, the participants perceived technology as a risk in different ways, depending on their age and life course stage. Young adults highlight the risk to privacy and independence whereas late middle-agers perceive technology as a risk to security. These perceived risks can reflect the life course and generation membership of each consumer: members of Generation Ys are said to value independence (Paul, 2001; Parment, 2011, 2013) which may lead to their need to emphasise privacy in the use of technologies. Millennials, being affected by technologies starting in early childhood (Green, 2008), have experienced the all-encompassing effects of technologies in their social relationships and therefore might highlight privacy as a core value and similarly a risk of technologies.

Moreover, the lives of young adults, involving transitions in social relationships from student to employee or from single to married couples and later on to parents (Hutteman, 2014; Green, 2008) is characterised by rapid changes and juggling between different social roles and responsibilities; thus technologies can also be perceived as a risk in terms of time management, pointing to the need to have control over them. Hence, the commonly known stereotype of those born in the 80s and early 90s as ‘digital natives’ (Dulin, 2008) is not supported in this study; rather, many participants aged 25 to 35 speak about technologies in a belittling way. In young adults’ speech, generational experiences or consciousness in the use of digital appliances seemed nevertheless stronger than among late middle-agers, indicating that young adults might have a stronger generational identity in terms of digital technologies than late middle-agers.

Older adults – those aged 50 and over – generally value safety (Pulkkinen and Polet, 2010) and new technologies represent functions related to safety (Ling, 2004; Mikkonen et al., 2002). In our discussions, late middle-agers connected digital technologies to ideals of security, and in the case of smart home solutions, ‘digital security’ is connected to old adulthood in late middle-

agers' speech. Moreover, late middle-agers were much more insecure about their ability to manage technology which resulted in a careful orientation towards it. Late middle-agers became engaged with technologies in their 30s so they might not have had the opportunity to integrate technologies into their already established daily routines (Haddon, 2005). From this perspective, the use of digital technologies seems to be a matter of generation or cohort experience (Ling, 2008).

In our group discussions, however, insecurities towards technologies were interpreted by participants as stemming from inadequate skills. Rather than generational or cohort experience, attitudes towards digital technologies reflect the life-course stage of late middle-agers: with ageing, maintaining satisfactory social relationships becomes important (Charles and Carstensen, 2010; Hutteman, 2014) and for ageing consumers, digital technologies represent means of maintaining relationships and communication with family members (see also Thayer and Ray, 2006). In this study, late middle agers recognised generational differences in terms of technological skills, but in themselves the differences did not represent a generational consciousness as much as the individual life events related to changes in personal relationships and the need to 'stay in touch' with their family members.

The findings of this study highlight the importance of understanding the particularities of different generations as market segments. Although young adults and middle-agers seem to adhere to similar values and meanings concerning the digitalisation of domestic environments, the subtle differences in perceived risks and benefits of technology provide a basis for cohort-based differentiation of marketing practices. Product design, branding and communication could create personal appeal and a sense of familiarity (Parment, 2013) among middle-agers by demonstrating that digitalised products result in benefits such as safety and the well-being of others. Conversely, privacy and independence are focal concerns for young adults, and thus

brand, product design and communication personalised to this cohort could be designed accordingly.

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