2017

ICTs and client trust in the care of old people in Finland

Hirvonen, Helena

ICTs and client trust in the care of old people in Finland

Helena Hirvonen

Introduction

As one of the Nordic welfare states, Finland offers some of the world's longest-established universal

provision of health and social care services for its elderly citizens. However, these support systems have

come under financial pressure in recent decades. Scarcity of public resources and efforts to increase

efficiency now motivate the development of welfare services. Technology is a key factor influencing public

policy-making in Finland, among other postindustrial countries (UN E-government, 2014) and as a result,

the knowledge economy and technology-assisted control and regulation of services are increasingly seen

as solutions to the crises of the public service economy. The Finnish government emphasises digitalisation

of public services as one of its strategic priorities (Strategic Government Programme, 2016). Strong

optimism and hopes of more flexible and efficient service production, better civic participation, improved

transparency, documentation, quality and comparability of service outputs validate digitalisation

(Ministry of Social Affairs and Health, 2015). Due to growing service demand and the fiscal crisis, more is

now expected of family members as carers of old people, while information and communication

technologies (ICTs) and digitalisation of services are highlighted as solutions to improve public service

performance (Jolanki, Szebehely and Kauppinen, 2013).

Yet, digitalisation is not only a technological transformation for public service organisations and workplaces, but also a *cultural* and *social* one. On the one hand, care professionals are key actors in reasserting citizens' trust while on the other hand, the rather hidden role of (un)paid family carers as primary care takers of older relatives has come to the fore in recent years. As intergenerational help and care is mostly provided between dispersed households, ICTs provide an important tool for co-ordinating between informal and formal care and help. There is a vast literature on the adoption and use of ICTs in different organisational settings of care work, and on the co-construction of new technologies and the body (Haddon, Mante-Meijer and Loos, 2008). However, the question of how implementation of ICTs affects the formation of trust between participants in these relationships, and between them and the care service system, has not been studied in depth.

Trust is an important vehicle to reduce and deal with complexity in technological societies, and the digitalisation of welfare services poses specific challenges in the formation of trust in health and social care work. Care involves technical and medical expertise, but also more intangible aspects of personal service, bodywork and emotional orientation to the needs of another human being (Tronto, 1993). These cannot always be captured or replaced with ICT. Following Luhmann (1979), the trust that welfare service users develop towards the welfare state and its service system ultimately depends on individual encounters and the personal trust that is created between service users and care professionals in face-to-face encounters. To date, research about professional-citizen relations strongly shows that face-to-face-encounters are very important for the emergence of trust in these relations (Hirvonen, 2014). Meanwhile, expert knowledge of care professionals is increasingly questioned in contemporary knowledge societies (Santiago and Carvalho, 2015), obliging professionals to a growing amount of ICT-mediated accountability work, such as reporting and registering of tasks and activities in various electronic databases.

What does the (at least partial) substitution of face-to-face encounters by digital encounters mean for trust in the context of formal and informal elder care? This chapter aims to gain insight into this question.

It analyses cultural and social transformation brought on by the use of ICTs (namely mobile phones and computers) in the care of old people. The analysis is based on qualitative data collected from caring family members of old people (n=12) and elder care professionals (n=12). The chapter strives to answer to the question of how the growing use of ICT affects trust in care relationships. The system level trust – citizens' confidence in the competence of public services – has remained high in Finland (Kouvo, Kankainen and Nieminen, 2015). However, a recent survey suggests that only half of the people in the 75–89 age group trust to get help and care from the public service sector, while nearly 80% trust to get help and care from family members and next of kin (Aging and Housing, 2012; Jolanki, Szebehely, and Kauppinen., 2013). This is contrary to previous research claiming that trust tends to increase with age (on the aging effect, see Robinson and Jackson, 2001).

The decline in the overall level of trust (the period effect) could partly result from the paradigm shift in Finnish elder care policies. In light of these changes, it is important to study if, how, and to what end ICTs mediate trust in the care of old people. The great variation within the old age cohorts in terms of individuals' cognitive capacities, quality of kinship ties and ICT readiness can further increase inequality in old people's opportunities for a good quality of life. The chapter begins with an introduction of the context of elderly care in Finland, and the conceptual framework applied in the study. It then introduces the data and methods, followed by results and concluding remarks.

ICT and the care of old people in Finland

I use a broad definition of ICTs in this chapter, with an emphasis on conventional technologies, such as mobile phones, computers and the internet. The definition follows from descriptions used by the informants in the two data sets used in this study. In the case of care professionals, ICTs were described as software and devices, such as computers, hand-held devices, and mobile phones. With almost 80% of

elderly people in Finland owning a mobile phone (Intosalmi et al., 2013), the market for so-called assistive technologies for old people living at home is rapidly growing. In line with these statistics, the ICT described and used the most by caring family members in this study was the mobile phone.

Following Kröger and Leinonen (2011) care of older people in Finland can be best described as a loosely coordinated web formed by actors in four realms: informal, public, private and voluntary. The focus in this study is on the informal and public provision of help and care, representing the two main ways of organising eldercare. Informal care and help by family members is the most general and often the only source of help for old people (Kröger and Leinonen, 2011). While there are more expectations than before especially on the involvement of adult children in the care of their old parents, most family members assist their relatives while themselves remaining in the labour market full time. Importantly, there is no legal obligation on families to provide care or financial support to older people in Finland.

In official policy, the role of family members remains complementary to local municipalities who are responsible for forming public welfare policies and providing care services (Kröger and Leinonen, 2011). The coverage and the contents of care services have changed rather dramatically in Finland since the 1990s. Before that, almost all institutional and home care services were organised and provided as public services by municipalities, but since the mid-1990s marketisation of care services has been a strong trend in Finland (Anttonen and Häikiö, 2011). Today, care of old people involves various actors, including municipal home care services, private and non-profit service providers, as well as family members. The changes represent erosion of the idea of universalism. Meanwhile, living at home in advanced age has become an important welfare policy goal in the 21st century (Kröger and Leinonen, 2011; Aging and Housing, 2012). However, increase in the number of older people in poor condition as well as the scarcity of resources have led many municipalities to tighten the criteria for home care service eligibility. Provision of elder care services is now based on individual needs assessment, which prioritise home care and avoid institutional care as much as possible. There is growing focus on assisted living at home, while service

users are forced to purchase supportive services – previously provided by the municipality – from the market.

The uses of ICTs in mediating trust in the care of old people

Trust is an important vehicle to reduce and deal with complexity in increasingly technological societies. When defining trust in any relationship, the complicated social, cultural and psychological networks underlying the relationship deeply affect the systems and individuals involved. For the care of old people, ICTs are a vehicle that has the potential to induce communication and to generate trust between old people, their family members and professional carers. However, the context of elderly care is also special in terms of communication. The communicative actors it encompasses are old and their communicational capabilities can be limited, which highlights the importance of physical closeness in the help and care of old people (Jaava, 2006). The more limited the cognitive capacities of the person in question, the more the communication happens through speech, touch, and small gestures that one learns to interpret through accumulating knowledge of the other person.

Such a context poses challenges to ICTs. Proximity between individuals has traditionally been an essential requirement for the execution of corporeal and social practices of care that transfer the feeling of being in good hands (Tronto, 1993). Consequently, the growing use of ICT affects the mechanisms through which trust can be generated and reasserted. Previous studies suggest that the use of ICT does not self-evidently facilitate formal or informal care relationships, but it may even inhibit good communication and interaction in care relationships by expanding the physical distance between the parties involved (di Luzio, 2006). The negative impacts of ICT partly derive from the disregard of the value of verbal and non-verbal communication in face-to-face interaction and in formation of client turst (Brown and Calnan, 2011; van Wynsberghe, 2011).

5

Regarding the potential of ICTs in terms of their availability and attitudes of old people as ICT users, there are great differences among the age cohort 75–89 in Finland. In 2015, a third of people in this cohort had used internet within the last three months and 13% of the age group used it regularly (Statistics Finland, 2015). The diversity in the life situations of the people in the age cohort greatly affects individuals' capacities to use ICTs. For one, internet user rate rises with the old people's occupational status, level of education and the number of next of kin and social networks they have (Rasi and Kilpeläinen, 2016). The same goes for mobile phones, which are the most common ICT device used by people aged 75–89. Over 80% of the age group own a mobile phone, though the user rate declines with rising age, and lower occupational and educational status (Intosalmi, Nykänen and Stenberg, 2013). People's distinct lifestyles, identities, interests and culture may also shape ICT use especially in more rural areas (Hakkarainen, 2012).

In this study, the role of ICTs in the care of old people is analysed from the point of view of sociological theorisation on trust (Kuhlmann, 2006; Luhmann, 1979) on two levels: on 'the system level' as citizens' trust toward the welfare service system, and on 'the personal level' as trust toward care professionals and other carers. Luhmann (1979) emphasises that system level trust ultimately depends on personal trust created between individuals, in this case the old people and their family members and/or care professionals. Therefore, the personal trust that is created in everyday encounters between workers, service users and family members can have far-reaching consequences on trust in the system level between citizens and the welfare state in general.

Data and methods

In the context of health and social care provision, empirical research has mainly studied trust from the point of view of patients/service users. The focus in this study, however, is on the ICT use of family members and care professionals as mediators of help and care of old people. The study focused on two aspects of eldercare: first, on how ICTs mediate care workers' multiple accountabilities (their

organisational and professional trust) in the context of formal care service work, and second, on how ICTs mediate family members' activities in the context of informal care. These two realms of care – formal care by professionals and informal care by family members – are interrelated in elder care provision and can thereby be studied in relation to one another.

The data comprises two separate sets of qualitative interview data. The first is a focus group interview data (n=12) collected in Finland in 2013 from women involved in the care of an older family member[i]. The interviewees were aged between 40–59, apart from one who was under thirty and two that were aged 60+. All of the women participated in working-life and had an elderly family-member they helped regularly. Most of the interviewees represent the typical example of a caring family member in Finland who provides informal care to their older relative (in most cases their parent/parents) in the age group 75–89. Apart from one respondent, the interviewees did not share the same household with the relative whom they helped. Following the typology of Byrne et al. (2009), the women's descriptions suggest their elderly relatives had some capacity to manage ADL tasks (Activity of Daily Living). In most cases, the women assisted their relative with IADL tasks (Instrumental Activity of Daily Living). The women thus offered more 'help' than 'care', as is often the case in countries with wide-ranging provision of public services (Brandt, Haberkern, and Szydlik, 2009).

The focus group interviews dealt with the women's life situations, their experiences in combining work and care responsibilities, and their role in the help and care of their older relative. The respondents' experience in using ICTs was not explicitly taken up during the interviews, but it turned out to be central to their accounts. Based on information given in a background questionnaire the informats filled, majority of them are active ICT users, namely well-educated adults who live in a large or middle-sized municipality, and who work and have children (e.g., Taipale, 2013; Fortunati and Taipale, 2012).

The second data includes interviews (n=12) collected in 2007–2009 from health and social care workers in

Finland by using snowball sampling and by recruiting interviewees through adverts posted in welfare service facilities. The interviewees worked in municipal home care services or supported service housing, which are the main forms of public elder care services in Finland. The interviewees were between 25–61 years old. In terms of the ICT-usage described by the respondents, the focus of the interviews was mostly on patient information systems and various computer software programs the interviewees used as a part of their work. The interview themes focused on the nature of the participants' jobs and their relationships with co-workers and clients, as well as the changes they had experienced in their work. Overall, the aim was to map the respondents' accounts of organisational life and work practices in various locales within the contemporary public service sector.

The interviews in both data sets were semi-structured and were recorded and manually transcribed. The focus group interviews with caring camily members lasted appproximately two and a half hours, while individual interviews with care professionals lasted approximately one and half hours each. In both cases, specific themes were introduced using key questions and prompts when necessary. Both data sets only include female respondents, which should be taken into consideration in the interpretation of the results. Furthermore, since the data from care professionals was collected in 2007-2009, it does not reflect the most recent turns in technology-mediated practices of professional care. However, because this is an exploratory study on ICTs and trust in the context of eldercare, the results should be taken as a preliminary investigation in the field that requires further research.

The analysis was carried out by reading and re-analysing as a methodological tool (Dampier, 2008) in light of Luhmann's (1979) idea of personal and system level trust. In the first-order analysis, the focus was on finding the parts containing informants' descriptions of ICTs and their use in everyday activities of care and help. In the second-order analysis, these accounts were further organised and analysed based on the concepts of personal trust and system level trust. The results are organised under two sub-chapters. The first recalls informal carers' accounts of ICT use. The second sub-chapter presents the results from the

data collected from care professionals.

Results

The role of mobile phones in informal care and help of older people

Policy-making regarding old people's help and care needs at home can be divided into two discourses, in parallel with Higgs and Gilleard's (2015) discourse of the third and fourth age: the third age sees old people as active seniors with financial resources, making independent choices according to their lifestyle and preferences. The fourth age discourse reflects the negativity and otherness that are presumed characteristics of the 'old' old age where frail old people's living arrangements and care needs are dictated by their deteriorating physical and cognitive state of health and resulting dependence on family members and/or care professionals. In majority of interviews that I conducted with caring family members, the discourse resembled the more negative one, that of the 'fourth age'. A woman who gave help to her mother who lived by herself gave a typical description of a caring family members' situation among the interviewees:

" I have these two sisters. We all work and they also have young kids, and a bit more stable routine in terms of working times and lifestyles. So, I have become a kind of a carer for our mother, I take care of all things, financial and medical, I make check-up phone calls every day and drive to her if needed. And it wouldn't be that tough if it wasn't for her memory disease. The disease makes everything so unpredictable: has something happened or not, is she lying to me on the phone, and so on. She lives at home alone and has become sort of a hermit, and now I try to take care of her from afar."

Respecting the autonomy of a mother who suffers from memory disease is not easily combined with trusting that she is doing well. The description of the interviewee brings out the complexity and

somewhat unsettled nature of the care and help of old people. In Finland, it is not common for adult family members of different generations to share a household, and adult children often live a significant distance from their old parents. As this was the case for many of the interviewees, mobile phones were the key device for coordinating activities of care and help. In some cases, the role of mobile phones was mainly sociable, whereas in others, it had become an irreplaceable lifeline between the interviewee and their elderly relative, as for one of the interviewees who described the situation of her late father as follows:

I was the only relative to my father who suffered from cancer and lived 200 km from here. Towards the end, he was suicidal and in a lot of pain. So, I told at work that I have my mobile phone in my pocket, although we're not suppposed to carry them during work, and I felt that it made it easier that he could contact me and talk to me, and it always did. (…) those calls were really tough during workdays and at home, too. But the physical distance, which we've talked about, I understand well what it feels like when you can't just take a bicycle and go to him, but he lives somewhere far away. And in my case, you can't send anyone to him because he won't open the door to anyone. (...) The distances these days, it makes me think it's the elderly who should move closer to their children (laughter), so it would be easier!"

Where possible, workplace cultures have adapted to employees' use of personal mobile phones. While such practices can ease the anxiety of both caring family members and their old relatives, having a mobile phone at one's reach all day can also become a burden, as one of the interviewees recalled:

"What made it so straining was that this spring, mom would first call my sister seven to thirty times a day – mom has a panic disorder. She is so insecure, although she gets home care service, and we visit often. (…) So my sister was very tired with the situation, and if mom couldn't get a

hold of her, mom would call me. I have my phone on me all the time. Well, she didn't call at night

so much, but during the day and so on."

For the women in this study, a constant availability through mobile phone had both positive and negative consequences. On the one hand, it eased their feelings of helplessness and guilt over the old relative's wellbeing when they could not be physically close to them. On the other hand, being available 24/7 was also a source of stress and anxiety. Recent surveys from Finland suggest that the health, life experiences, needs and wishes of people in the age group 75+ are much more diverse than those of people in younger cohorts (Aging and Housing, 2012). The variables behind the diversity include socioeconomic status, family relations, and health. In line with these findings, the results in this study suggest that the accumulation of various resources throughout one's life course greatly affects one's capacity for relatively independent living at home. The results also point to the complexities with family members' attempts to respect the older relative's decision-making autonomy regarding his or her capability for independent living at home.

Providing help and care to an older family-member is often a balancing act between three issues, as Kunk (2010) suggests: taking responsibility of the relative's care, respecting their autonomy, and drawing a limit to one's own involvement. The tension between autonomy and responsibility can at times create particular difficulties in terms of family members' involvement in the help and care of an older relative. Many of the women interviewed for this study made special efforts to set both practical and emotional boundaries between themselves and their older relative. Considering the widespread use of mobile phones and the associated expectation of one's constant availability, drawing these boundaries is not always easy.

In terms of trust that is mediated in care and help through mobile phones, many of the interviewees emphasised how they could not fully trust the accuracy of information on their old relative's condition

received through phone calls. One thing in common with all of the interviewees was their general reservation towards the idea of extensive use of ICTs in help and care of their old family members, especially in cases where the cognitive capacities of their old family member were impaired. This was the case with a woman whose mother was diagnosed with memory disease and continued to live on her own:

"She takes her own temperature 30 times and then calls and asks me 'what does this mean?', and I respond: '36.4 means no feaver'. Eventually, it went to the point where she was taking her temperature, checking her blood glucose level and blood pressure, all with using a single device! And there I am, trying to stay gentle, when she calls and I ask her what (device) she has used to take these measurements, and she says 'It says Omron on this', and I respond, 'Yes, well, that's the thermometer'."

Typically, old people evaluate the 'worth' and value of technology based on how it supports their ability to carry out everyday activities and chores, and to manage their health and wellbeing (Leikas and Saariluoma, 2008). Users need to have confidence and skills to use these technologies, and understanding of the processes of ageing and the lifestyles of old people is therefore crucial for successful use of technologies. Ideally, products and services are designed so that they increase people's experiences of wellbeing, so that they don't cause harm or or become excluded from society (Leikas and Saariluoma, 2008).

Apart from devices and surveillance technologies that did not require active usership and skills, such as security bracelets, all intervewees were sceptical about the introduction of new technologies in help and care of their elderly family members. Importantly, it is precisely family members who are primary helpers of old relatives, who in practice, can encourage or discourage the introduction of any new technologies into the lives of old people. Old people in Finland are rather willing to make financial investments in technology and changes to their everyday lives at home (Intosalmi, Nykönen and Stenberg, 2013;

Kilpeläinen and Seppänen, 2014), and even to accept the use of social robots in health care (Taipale et al., 2015) if they see that it improves their quality of life at home. The distributed competencies within families to help and support old people in using ICTs are crucial in this respect (Rasi and Kilpeläinen, 2016). A lack of sufficient information about the possible uses of new technologies, and also the negative attitudes among caring family members can stand in the way of ICT use in the care of old people who live at home. Although the women in this study represent the age groups and socio-economic groups of skillful, active users of new technologies, their know-how does not necessarily extend or transfer into willingness or expertise in assessing if and how new technologies could be used in the help and care of their old family members.

ICTs mediating professional help and care of old people – a balancing act

In contrast to the position of caring family members as private citizens, the choice to adopt or not adopt ICTs in professional care is less an individual one. As end-users of ICTs in the formal care sector, all health and social care personnel in Finland have computer skills, ability to read and document patient information, and access to the internet (Hyppönen, Hämläinen and Reponen, 2015). However, especially in social services, the use of digital communication between professionals and citizens is still in its early stages and electronic information exchange between workers and service users in home care service work remains rare. While workers believe that technology has a positive effect on service users' sense of safety, they see unreliability of technology as its greatest disadvantage. Implementation of new technologies thereby requires training for both professionals and service users.

In professional care, the social dynamics of ICT use are subject to micro level and meso level influences (Loos, 2008). On the meso level, interaction within the organisational environment (e.g. service-users and managers) drives professionals' adaptation of ICTs that are supposed to enhance the effectiveness and efficiency of work and communication processes. Particularly at the micro level, however, employees do

not greet all innovations enthusiastically. This applies especially to managerial technologies that do not directly facilitate patient work. Care professionals devote a significant proportion of their working time to ICT-related tasks of recording and reporting, and thererfore also assess the sensibility of their time use carefully, as a home care service workers described:

We've recently begun to report also all the indirect tasks that are not part of our official job descriptions, such as phone calls and references. But I'm not convinced that this is good use of our time and skills (...) Then again, if I don't have the time to go to the electronic patient record to read the patient files, it seems crazy to go into the clients' homes because then I can only do the necessary basic tasks. I don't always have the time, but when I do, I try to read their files the day before, to check who I'm supposed to see the next day, to go through their medical history and their life history, to get an overall picture. It feels meaningful to be able to piece together their life situations. It allows me to help them the best way I can, so that it's not just separate tasks I do here and there."

The excerpt shows that the purposefulness of accountability work with regard to the core tasks of care is important for the acceptance of technology-assisted management practices. These practices affect workers'accountabilities and have consequences on client work and on the ways in which client trust is enhanced. When directly related to client-work, ICTs can benefit workers' professional development and client relations in line with normative value systems and the ethics of care work, such as in the case of familiarising oneself with clients' histories through electronic patient records.

However, care work is also increasingly framed by practices of accountability that entail assessment, reporting, budgeting, and administrative tasks (Hirvonen, 2014; Dahl and Rasmussen, 2012). This accountability work by care professionals is closely related to the question of personal and system level trust. System level trust towards eldercare service ultimately depends on the inclination towards risks

being kept under control by service providers. Service users' confidence in the functionality of care services builds on their continual, affirmative experiences in using these services (Jaava, 2006). Thus, minimizing risks and making care work more transparent with the help of ICTs can help improve citizens' trust toward care service provision at the system level.

In elder care work this kind of risk management work by professionals requires not only appropriate managerial tools and technologies, but more immaterial resources such as time. In fact, some interviewees suggested that ICT-assisted accountability work could reduce rather than increase professionals' opportunities to engage in patient work:

> *"One thing I've noticed in home care work is that we don't have enough staff. Yet, we need to take care of all our clients. And when we have to hurry, we make more mistakes that the worker in the next shift will have to deal with. We forget to give them their medicine, give them wrong medication or forget to order in the medication we need. (…) So the time goes into correcting these mistakes, making safety incident reports on-line, sending and printing them and dealing with them in the unit. The mistakes build up, it's not just about correcting them, but reporting, dealing with and planning how to prevent them in the future. It's kind of a funny cycle."*

More often than not technology-mediated practices of care do not contribute directly to increasing time for face-to-face work with clients, but rather to the growing transparency of the service system. The irony in this is that for many care professionals, the rewarding aspect of eldercare is precisely in the face-to-face contact with service users (Hirvonen, 2014; Laine et al., 2011). Previous studies show how the growing use of ICTs by care professionals for managerial purposes often means a depersonalisation of social contact and a reduction in the autonomy of the workers' decision-making (Loos, 2008; Eriksson-Lidman et al., 2012). For one, Calnan and Rowe (2008) suggest that we can no longer assume professional trust to be embodied in the professional. Instead, this trust has to be earned through careful, explicit

documentation of daily work that Kuhlmann (2006) describes as 'checking-based trust'. In line with these studies, the results here suggest that although the task of 'leaving visible markers' of one's work is now a central feature of care work, the human service aspect of care work continues to be valued by both care professionals and service users, as one of the interviewees explained:

> "I like it when many of my clients say that 'it's nice that you're here, you do the job so well'.". It tells I've managed to gain their trust. So, they trust me and are happy and give feedback. (…) They're more relaxed, because sometimes old people can be very specific about certain issues, so they don't go and check that I've done everything I was supposed to. So, they know when I'm there, the job gets done."

The excerpt highlights how trust in the context of elder care is ultimately founded on a personal relationship that evolves over time in face-to-face encounters. This suggests that earning a service user's trust at the personal level, and temporal resources for such engagement, can be important for building trust in the context of professional care work. To connect this issue with the question of old people's agency, ICTs and telecare devices have proven to be useful for giving patients control of their own care, improving their autonomy, and increasing the amount of information available for both service users and professionals (Pols, 2012). However, old people's capacities for such engagement varies tremendously. Opportunities to reassert personal trust in terms of face-to-face encounters between service users and care professionals therefore remain necessary for ensuring service users' equal access to good care, and also for the meaningfulness of work for care professionals.

Conclusions: The complex construction of trust in the care of old people

A growing number of old people live in their own homes at a late age, receiving both informal and formal help and care. Assuring elderly citizens that they are in good hands is a key component of a good quality of life at home. At the policy level, respect for old people's autonomy and a simultaneous assumption of their capabilities to make choices regarding their own care go hand in hand with the logic of consumer choice, which has become prominent in health and social care services in recent decades (Anttonen and Häikiö, 2011). In this chapter I have tried to demonstrate the role of ICTs from the point of view of personal level and system level trust. It would be wrong to assume that the introduction of novel ICTs to care services for old people is 'a magic bullet' that will cure all ills and automatically improve their sense of security. Rather, it seems that the enthusiasm for technologisation of care simply overlooks some crucial aspects of elder care.

First of all, the availability and acceptance of use of ICTs among the age group 75+ varies greatly, based on an individuals' life situation, their location (rural vs. urban), differences in their cognitive capacities and socio-economic and social resources (Kilpeläinen and Seppänen, 2014; Intosalmi, Nykänen and Stenberg, 2013). In terms of using ICTs as a part of help and care, mobile phones and the possibility for 24/7 contact and communication is one of the most crucial aspects of the care of old people who continue to live in their own home. Second, family members are in a key position to introduce new devices to their old relatives. The social and socio-economic resources of old people and their family members, as well as the distance between family members and their old relatives, influence the ways in which technology is taken into use.

The question of how to best cater to the care and help needs of a growing number of old people is an acute one. In Finland, more e-health services are now provided directly to citizens than ever before. Nevertheless, electronic information exchange between patients and health care personnel is still not widely used. According to Hyppönen, Hämäläinen and Reponen (2015), the challenge is to make e-services user-friendly and show their added value to citizens (and professionals) so as to encourage their

use. This, of course, requires renewal of service processes. In 2014, citizens' use of online e-health and e-welfare services through electronic patient records was still modest (12%). The top services citizens wanted to use electronically were access to information, such as laboratory test results, and online renewal of prescriptions. Apart from prescription renewals, however, a strong belief remains that contact with care professionals cannot be replaced by e-services. This is by far the most important barrier to citizens' uptake and use of e-health and e-welfare services (Hyppönen, Hämäläinen and Reponen, 2015).

The results suggest that in ageing societies, a growing number of service users need help and assistance that requires embodied, personal care (Hirvonen, 2014). Yet, the work of care professionals is not being articulated any more consciously than before, because the world of policymaking – where problems are presented in abstract, neutral terms – is a disembodied one. Hence, the outcome of the research is that apart from managerial purposes, ICT use in professional care does not necessarily contribute to client trust at the personal level, and that the use of the mobile phone as a vehicle for communication between professionals and service users remains rare in home care service work. Regarding formal care and help of old people, the growing use of managerial technology is therefore a double-edged sword. On the one hand, it enables better transparency and organisational accountability of care services. This can help in securing citizens' trust towards the care services at the system level, and ultimately, help secure the legitimacy of the welfare state. On the other hand, widespread managerial use of technology does not necessarily contribute to service users' sense of personal trust. Verbal and non-verbal communication between care professionals and service users remains an integral element to service users' sense of personal trust and care professionals' sense of meaningfulness of work. To improve service users' sense of personal trust, it seems that public elder care service provision has yet to take advantage of old people's growing use of mobile phones and internet, which could provide a cost-effective and user friendly means to reassert care relationships and service users' personal trust towards service providers.

Although only one third of people aged 75+ currently have access to internet in Finland, the proportion will rise with younger cohorts. The frequency of mobile phone ownership among old people therefore gives a promising example of how technology can be of great help when the distance between old people and their family members is long, as the results in this study suggest. Yet, this is so only as long as caring family members and old people themselves have access and ability to use this technology. Those in the oldest age groups with low socio-economic status and with few or no next of kin are in the most precarious position in this regard. This is alarming because once they become users of ICTs, people in the age group 75-89 find that ICTs, and mobile phones in particular, increase their sense of security (Blazun, 2013; Intosalmi, Nykänen and Stenberg, 2013). The dispersed access and ability to use technology among old people can therefore add to existing disparities in the quality of life of old people.

As a conclusion, the chapter suggests that ICT use in the care of old people needs to be assessed from a sociological point of view, with a focus on the consequences of digitalisation on both personal and system level trust, which are both essential for the legitimacy of the service system. Attention should also be paid to the great differences in the life course accumulation of social, cultural and economic capitals within old age cohorts. Attention to these resources brings about differences in individuals' cognitive, social and socio-economic capacities that greatly affect how ICTs can improve people's abilities to live independently at home and, ultimately, to their quality of life.

Bibliography

Aging and Housing, 2012. Ikääntyminen ja asuminen. 75–89-vuotiaiden näkemyksiä asumisesta ja ikääntymisestä. KÄKÄTE-project Publications. Helsinki: Vanhustyön keskusliitto ja Vanhus- ja lähimmäispalvelun liitto.

Anttonen, A. and Häikiö, L., 2011. Care 'going market': Finnish elderly-care policies in transition. *Nordic Journal of Social Research*, 2(2), pp. 1–21.

Blazun, Helena (2013). Elderly people's quality of life with information and comunication technology (ICT): toward a model of adaptation to ICT in old age. Ph.D. Dissertaitons in Social Sciences and Business Studies, no 59. University of Eastern Finland.

Brandt, M., Haberkern, K. and Szydlik, M., 2009. Intergenerational help and care in europe. *European Sociological Review*, 25(5), pp. 585–601.

Brown, P. R. and Calnan, M., 2011. The civilizing process of trust: developing quality mechanisms which are local, professional-led and thus legitimate. *Social Policy & Administration,* 45(1), pp. 19–34.

Byrne, D., Goeree, M.S., Hiedemann, B., and Stern, S., 2009. Formal home health care, informal care, and family decision making. *International Economic Review*, 54(4), pp. 1205–1242.

Calnan, M. and Rowe, R., 2008. Trust relations in a changing health service. *Journal of Health Service Research & Policy,* 13(3), pp. 97–103.

Dahl, H.M. and Rasmussen, B, 2012. Paradoxes in elderly care: the Nordic model. In: A. Kamp and H. Hvid, eds. *Elderly care in tranition. management, meaning and indentity at work: a Scandinavian perspective*. Copenhagen: Copenhagen Business School Press.

Dampier, H., 2008. Re-reading as a methodology: the case of Boer women's testimonies. *Qualitative Research*, 8(3), pp. 367–377.

di Luzio, G., 2006. A sociological concept of client trust. *Current Sociology*, 54(4), pp. 549–564.

Eriksson-Lidman, E., Norberg, A., Persson, B., and Strandberg, G., 2012. Healthcare personnel's experiences of situations in municipal elderly care that generate troubled conscience. *Scandinavian Journal of Caring Sciences,* 27(2), pp. 215–223.

Fortunati, L., and Taipale, S., 2012. Organization of the social sphere and typology of the residential setting in Europe: how sociability affects the adoption of the mobile phone in rural and urban locations. *Technology in Society,* 34(1), pp. 33–43.

Haddon, L., Mante-Meijer, E. and Loos, E., 2008. Introduction. In: L. Haddon, E. Mante-Meijer, and E. Loos, eds. *The social dynamics of information and communication technology.* Aldershot: Routledge. pp. 15–22.

Hakkarainen, P., 2012. 'No good for shovelling snow and carrying firewood': social representations of computers and the internet by elderly Finnish non-users. *New Media and Society*, 14(7), pp. 1198–1215.

Higgs, P. and Gilleard, C. (2015). *Rethinking old age: theorising the fourth age*. London: Palgrave.

Hirvonen, H., 2014. From embodied to disembodied professionalism? Discussing the implications of medico-managerial management in welfare service work. *Social Policy & Administration*, 48(5), pp. 576–593.

Hyppönen, H., Hämäläinen, P., and Reponen, J., 2015. *eHealth and eWelfare of Finland: checkpoint 2015*. Helsinki: National Institute for Health and Welfare.

Intosalmi, H., Nykänen, J., and Stenberg, L., 2013. Teknologian käyttö ja asenteet 75–89-vuotiailla. Raportti kyselytutkimuksesta. KÄKÄTE-projekti. Helsinki: Vanhustyön keskusliitto ja Vanhus- ja lähimmäispalvelun liitto.

Jaava, J. (2006). *Trust as a decision: the problems and functions of trust in Luhmannian systems theory.* Ph.D. University of Helsinki.

Jolanki, O., Szebehely, M. and Kauppinen, K., 2013. Family rediscovered? Working carers of older people in Finland and Sweden. In: T. Kröger and S. Yeandle, eds. *Combinig paid work and family care: policies and experiences in international perspective.* Bristol: Policy Press. pp. 53–69.

Kilpeläinen, A. and Seppänen, M., 2014. Information technology and everyday life in ageing rural villages. *Journal of Rural Studies*, 33, pp. 1–8.

Kouvo, A., Kankainen, T., and Niemelä, M., 2012. Welfare benefits and generalized trust in Finland and Europe. In: H. Ervasti, J.G. Andersen, T. Fridberg and K. Ringdal, eds. *The future of the welfare state: social policy attitudes and social capital in Europe.* Cheltenham: Edward Elgar Publishing. pp. 296–328.

Kröger, T. and Leinonen, A., 2011. Home care in Finland. In: T. Rostgaard, C. Glendinning, C. Gori, T. Kröger, A. Österle, M. Szebehely, H. Theobald, V. Timonen, and M. Vabø, M., 2011. *Livindhome: living independently at home: reforms in home care in 9 European countries*. Copenhagen: SFI - Danish National Centre for Social Research. pp. 117-138.

Kuhlmann, E., 2006. Traces of doubt and sources of trust: health professions in an uncertain society. *Current Sociology,* 54(4), pp. 607–620.

Kunk, L.M., 2010. Prioritizing parental autonomy: adult children's accounts of feeling responsible and supporting aging parents. *Journal of Aging Studies,* 24(1), pp. 57–64.

Laine, M., Kokkinen, L., Kaarlela-Tuomaala, A., Valtanen, E., Elovainio, M., Suomi, R. and Keinänen, M., 2011. *Sosiaali- ja terveysalan työolot 2010. Kahden vuosikymmenen kehityskulku*. Helsinki: Työterveyslaitos.

Leikas, J., and Saariluoma, P., 2008. 'Worth' and mental contents in designing for ageing citizens' form of life. *Gerontechnology,* 7(3), pp. 305–318.

Loos, E. (2008). Using ICT in human service organisations: an enabling constraint? Social Workers, New Technology and their Organisation. In: L. Haddon, E. Mante-Meijer, and E. Loos, eds. *The social dynamics of information and communication technology*. Aldershot: Routledge, pp. 119–132.

Luhmann, N., 1979. *Trust and power*. Chichester: Wiley.

Ministry of Social Affairs and Health, 2015. *Information to support well-being and service renewal: eHealth and eSocial strategy 2020*. Helsinki: Ministry of Social Affairs and Health.

Pols, J., 2012. *Care at a distance: on the closeness of technology*. Amsterdam: Amsterdam University Press.

Rasi, P. and Kilpeläinen, A., 2016. Older people's use of learning of new media: a case study on remote rural villages in Finnish Lapland. In: J. Zhou and G. Salvenrdy, eds. *Human aspects of it for the aged population. healthy and active aging, PART II*, Second International Conference, ITAP 2016 Proceedings, pp. 239–247.

Robinson, R. and Jackson, E., 2001. Is trust in others declining in America? An age-period- cohor analysis. *Social Science Research,* 30(1), pp. 117–145.

Statistics Finland, 2015. Use of information and communication technology by individuals. Available at: <http://www.stat.fi/til/sutivi/2015/sutivi_2015_2015-11-26_tie_001_en.html> (accessed 19 December 2016)

Strategic Government Programme (2016). *Action plan for the implementation of the key projects and reforms defined in the Strategic Government Programme*. Finnish Government Publications 1/2016. Helsinki: Prime Minister's Office.

Taipale, S., 2013. The dimensions of mobilities: the spatial relationships between corporeal and digital mobilities. *Social Science Research,* 43, pp. 157–167.

Taipale, S, de Luca, F., Sarrica, M. and Fortunati, L. (2015). Robot shift from industrial production to social reproduction. In: J. Vincent, S. Taipale, B. Sapio, L. Fortunati, L, and G. Lugano, eds. *Social robots from a human perspective*. London: Springer, pp. 11–24.

Tronto, J., 1993. *Moral boundaries: a political argument for an ethic of care.* New York: Routledge.

van Wynsberghe, A., 2011. Designing robots for care: care centered value-sensitive design. *Science Engineering Ethics,* 19(2), pp. 407–433.

---

[i] The data was originally collected as part of the cross-national comparative project "*FLOWS - Impact of Local Welfare Systems on Female Labour Force Participation"* (EC, FP7, 2011-2014, http://www.flows-eu.eu)