Older Adults' Coping with the Digital Everyday Life

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Abstract

This study was motivated by a concern for how older adults adjust to their digital everyday life. Theories of motivation and self-efficacy are applied in order to understand how older adults master and adjust to the rapid development into a paper-free, online world. A sample of eighteen older adults (62-90 years) were interviewed about the reasons and motivations underlying their ICT usage, and how this affects their perception of mastering their everyday life. A semi-structured interview guide was developed for this purpose. The data were analyzed using an inductive coding procedure involving descriptive and interpretive phases based on the theoretical assumptions about motivation and mastery. Three overarching categories were evident in the data material; Challenges, Connectedness and Expanding. The first category describes new challenges mastering everyday life activities, and how this brings about feelings of pressure, barriers, and fear. The other two categories give a more positive picture of how older adults perceive the new developments. Internet and social media is perceived as positive because it enables them to stay connected to family, old and new friends. It also enables them to cultivate and expand leisure and hobby activities in new ways. Based on the findings we underscore the necessity of devising strategies that will prevent older people from being marginalized in relation to the digital everyday life.

Keywords: *Older adults, ICT usage, digital divide, everyday life, motivation, mastery.* [1]

Older Adults' Coping with the Digital Everyday Life

Over the past 20 years, technology has infused every aspect of the modern society, and use of digital technology is becoming an integrated part of people's everyday lives. The result of constant technological development is that many services and resources are now accessible only through digital means. Along with this trend, virtually every country in the world is experiencing growth in the number and proportion of the elderly population (United Nations, 2015).

These changes introduce many new challenges to society. Although older adults represent an increasing group of technology users (Vroman, Arthanat, & Lysack, 2015), many find themselves without sufficient user skills (Hill, Betts & Gardner, 2015). Without appropriate skills, they may risk being excluded from participating fully in society. This, according to Macedo (2017), is considered critical for both the economy and the society. Moreover, the digital divide is likely to widen as more information and public and private services migrate to the virtual world. Friemel (2016) describes this as the "second-level" digital divide.

While digital divide reasons related to a lack of skills remain important, several researchers put forward that we must look for multilevel explanations for older people's use and non-use of ICT, that include both demographic and individual factors (e.g. Helsper & Reisdorf, 2013; Selwyn, 2003; Selwyn, 2004a & 2006). International studies show that older people's ICT usage is associated with their level of education, income, employment, class, gender, disability, racial and ethnic background, and often happens at the intersections of these factors (e.g. Peacock and Künemund, 2007; Selwyn, Gorard, Furlong & Madden, 2003). Individual factors such as attitudes (Macedo, 2017), interest or motivation (Damodaran, Olphert & Sandhu, 2014; Hernandez-Encuentra, Pousada & Gomez-Zuniga, 2009; Morris, Goodman, Brading, 2007) and self-efficacy (Czaja, Fisk, Rogers, Charness, Nair, & Sharit, 2006) are also found important in determining an individuals' engagement with technology. For instance, recent studies suggest that motivational reasons seem to have increased in importance over time (Sandhu, Damodoran & Ramondt, 2013; Helsper & Reisdorf, 2017).

In Norway, the population is facing major changes as there has been a nearly complete digitalization of the society. For instance, from 2017, the public sector has decided that all communication with the general public will be carried out electronically. The idea is to "renew, simplify and improve" all public activities and services (White paper ST27, 2015). A "digital mailbox" has been developed to facilitate data exchange with enterprises and private persons. This was introduced at the beginning of 2016 as a tool through which all information from the public sector is imparted to the general public. The banking system and many private organizations have "gone digital" as well; many services and resources are accessible only through digital means. Digital technologies also provide access to a range of information (e.g. news), goods, entertainment/leisure activities and social networking opportunities. In other words, it is crucial to become a competent digital citizen quickly, if one is not already. Being online and managing to use the net is thus essential for being able to participate fully in society as well as maintaining a sense of inclusion.

The greater part of the Norwegian population has surrendered to this fact and most are fairly or highly competent users of the internet. The majority of the population is well equipped for this purpose and use digital platforms like tablets, smartphones, computers and so on. A national survey conducted in 2017 shows that 90 % of the population (16–79 years) use the internet on a daily basis (SSB, 2017). However, within the age group 65–74 years, fewer use the internet (69%) this frequently. In the oldest group (75–79 years), daily usage is even more infrequent (43%) (SSB, 2017). The survey also shows examples of the

everyday life activities they engage in: online banking (79%), reading or downloading online news (76%), e-mail (77%), finding info about goods and services (62%), searching for services related to travel and accommodation (41%), seeking for health-related information (41%). These statistics also show that within the age group 65–74 years 30 % use social media daily, while fewer in the older group (75–79 years) use social media this often (16%) (SSB, 2017). However, these statistics do not provide in-depth knowledge about the reasons and motivation underlying older adults' ICT usage. Nor do these numbers provide in-depth knowledge about how they master and experience the nearly complete digitalization of their everyday life. This paper addresses these issues by presenting findings from a study of the lived experiences of older adults' ICT usage in Norway. The study was guided by the following research question: What are the reasons and motivations underlying older adults' ICT usage, and how does this affect their perception of mastering their everyday life?

Motivation and Mastery in the Digital Era

Two key factors are known to govern human behavior: i) motivation and ii) belief in one's ability to cope with a task (self-efficacy). These factors are in play in a variety of situations that older adults encounter when coping with the digital everyday life. Several studies show that motivation, confidence and self-efficacy influence digital technology usage among older adults (e.g. Czaja, Fisk, Rogers, Charness, Nair, & Sharit, 2006; Ng, 2008; Hernandez-Encuentra, Pousada, & Gomez-Zuniga, 2009; Russell, 2011; Tsai, Shillair, Cotton, Winstead & Yost, 2015).

Aspects of Motivation – Intrinsic and Extrinsic

Self-Determination Theory (SDT) may be helpful in understanding people's willingness, ability and efforts to become digital citizens at a mature age (Deci & Ryan, 1985, 2002). Implicitly, there must be some degree of volition and autonomy present in such a demanding competence development process late in life. SDT defines intrinsic and extrinsic sources of motivation, and discusses how social and cultural factors facilitate or undermine people's volition and initiative, as well as their well-being and the quality of their performance. According to this framework, psychological well-being and optimal functioning predict the individual's experience of autonomy, competence and relatedness. SDT proposes that the degree to which these needs are unsupported or thwarted within a social context will have a detrimental impact on wellness in that setting.

Deci and Ryan (1985) make an important distinction between intrinsic and extrinsic motivation, meaning whether a behaviour is autonomous or externally controlled. These two types of motivation may help shed some light on the study of older adults' way of coping with the digital society, and the (implicit) demand to acquire new competencies.

When people are intrinsically motivated they will experience full volition, meaning they are willing to behave in certain ways. Characteristics of this type of motivation are that one is inherently interested and the task appears enjoyable. This type of motivation is also closely connected to a person's values

and beliefs, and it is assumed that being intrinsically motivated results in high-quality learning and creativity, better performance and positive emotions. A consequence of people acting on their inherent interests is that they increase their knowledge and improve their skills (Ryan & Deci, 2000). However, there are certain conditions that elicit, sustain and enhance this type of motivation as opposed to those that subdue or diminish it (Ryan & Deci, 2000, p. 58). Intrinsic motivation is enhanced if the task causes *feelings of competence.* Several studies have shown that optimal challenges and positive feedback on performance enhance and maintain intrinsic motivation (Deci, 1971; Harakiewicz, 1979). On the other hand, negative performance feedback seems to diminish it (Deci, 1972). There also needs to be a sense of *autonomy* present in the situation for people to experience that their behaviour is self-determined (Ryan & Deci, 2000).

Many older adults find themselves in the midst of complex processes where acquiring new competencies is essential for them if they are to be digitally aware and competent citizens. Ideally, this should be motivated from "within". In other words, a sense of volition (willingness to learn) must be present, meaning that in some way they value the perceived outcome of a behaviour so they can cope with ICT and the implications it has in their everyday life (Ryan & Deci, 2000).

On the other hand, *extrinsic motivation* may be the driving force, where a person chooses to learn how to use new technology as a result of external pressure or anxiety, not because of a genuine interest. In this situation, people may see the necessity of learning to become "digital citizens", either through seduction or coercion. In both cases, it may result in a sense of tension and anxiety that has negative consequences both for performance and well-being (Deci & Ryan, 1985). However, the degree of autonomy of the activity, a feeling of choice and desire to obtain an outcome, varies, even though it is of instrumental value. These processes are described as a continuum. *Internalization* is the point where an individual adopts the value of a certain activity or behaviour, while *integration* means that the person fully transforms it into his or her own. Finally, *identification* occurs when the person has identified with the personal importance of this activity, and accepted it as his or her own, in concert with one's other values and needs (Deci & Ryan, 1985; Ryan & Deci, 2000). However, this continuum is still extrinsic because the outcome of behaviour motivated by such regulations is assumed to have an instrumental value, even though it is volitional and valued.

Applied to older adults' attitudes and behaviour towards the digitalization of society, they need to surrender to the fact that this development includes everyone. There is no way around it, the instrumental value of mastering the digital society is unavoidable. There is another strong force in play as well: the pressure from society, the family and even the pressure felt by the elderly themselves and having to relate to what others think, feel and do (Ryan & Deci, 2000).

Self-efficacy – Implications for Mastery

The belief in one's ability to perform a given task, like learning how to use ICT

in everyday life, is a crucial determinant both for a person's behaviour, and for the outcome of this. In Bandura's terms, expectations of personal mastery affect both the initiation and persistence of coping behaviour (1977, p.193). Furthermore, according to Bandura, the strength of people's convictions in their own effectiveness is likely to affect whether they will even try to cope with given situations (p.193). Self-efficacy will influence the willingness to embark on the journey to become a digitally competent citizen late in life. For many older people, this may be frightening due to the lack of prior familiarity with the phenomenon (Damodaran, Olphert & Sandhu, 2014). Bandura claims that it is normal to try to avoid situations "one believes exceed one´s coping skills" (1977, p.194). Secondly, skepticism might also influence the learning effort in itself: why do I have to learn something I don't need? Bandura claims "efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences" (1977, p.194).

To many older adults, the perception of such obstacles may be connected to experiences shared by most people late in life; some degree of reduction in their cognitive, physiological and psychomotor functioning (Umemuro, 2004; Charness & Boot, 2009; Berner, 2014; Hawthorn, 2000). The short-term memory function decreases, which makes it more difficult to remember passwords and codes. It also becomes more challenging to organize and interpret massive quantities of information, which is a typical characteristic of the digital world.

Another example is reduced vision that may impair the ability to see letters, numbers and symbols on a keyboard properly. In other words, it is not surprising if some have a low belief in their mastery of the digital world, and therefore are more apt to decline opportunities they may have that would help them get started.

On the other hand, others will feel motivated and eager to start out to learn what they need so they can cope in an increasingly digital society. If their perceived self-efficacy is strong, it will have a positive effect on their efforts and activity (Bandura 1977, p. 194). However, regardless the initial level of self-efficacy, in the process of acquiring a fair or good level of digital skills, mistakes will be made that need to be corrected. People will make a mistake from time to time, things do not work, they cannot quite grasp what is wrong, and they will be left in a state of digitally induced despair. In other words, all the typical frustrations that almost everybody is confronted with in the digital world, independent of prior skills, will be present. However, with strong self-efficacy, "corrective experiences reinforce the sense of efficacy, thereby eventually eliminating (...) defensive behaviour" (Bandura, 1977, p. 194).

However, mastery expectations alone will not produce a desired outcome, and in the present context this means becoming digitally competent. Capability is also a prerequisite, particularly when it comes to choosing an activity willingly (Bandura 1977, p. 194). Therefore, to many older newcomers entering the digital world, this altogether might represent a challenge and perhaps an obstacle. They start from "ground zero", and slowly need to build a base of skills for personal efficacy beliefs to grow. If this is to happen, Bandura claims that people are dependent on different information sources known to produce a sense of

efficacy; but primarily their own performance accomplishments (Bandura 1977, p. 195).

Methodology

An interview study was conducted to obtain a better understanding of the reasons and motivations underlying older adults' ICT usage and how this affects their perception of mastering their everyday lives.

Sampling Procedures and Participants

Purposeful sampling (Patton, 1990) was chosen to obtain information-rich cases for in-depth study. The sample was recruited with help from the national, non-governmental organization SeniorNet. Among the many tasks this organization is involved in, is the key function of helping and instructing seniors in using technology. We chose Trondheim as our research field because there are many activities taking place every week, at different locations (public libraries, clubhouses etc.). We received permission to attend these weekly arrangements, and the intention of our visit was announced to the group of older people present. Between 5 and 10 persons showed up every week at each location. We decided to approach people at random, and we asked one-by-one if they were willing to be interviewed. We had no prior information about the informants. We applied gender as a selection criteria. None refused to participate. Fifteen persons were recruited in this way. In addition, three other information-rich cases from the network around SeniorNet were included in the sample.

All in all, 18 older adults participated in the study (12 women and 6 men). They ranged in age from 62-90 years. Those who seek help and guidance from SeniorNet´s staff of volunteers are all users of ICT, but on different levels, ranging from uncertain newcomers to moderately experienced users. This variance was mirrored in our sample. The participants had a variety of educational and professional backgrounds, from no education beyond secondary school to higher education. All had working life experience ranging from unskilled labour to professional positions in higher education.

Data Collection

We carried out 18 semi-structured interviews. Thirteen participants were interviewed at three different SeniorNet premises, an additional two were interviewed at a cafe, while three were interviewed in their homes. Before each interview began, the purpose of the study was explained to the participant and informed consent was obtained. The two researchers collaborated closely in planning the interviews and both were active contributors in the interview situation. The interviews lasted up to one hour and were recorded and thoroughly transcribed (418 pages).

The interviews were structured around their ICT usage, motivation and mastery. At the start of each interview basic demographic information was obtained. The core topics were: how they came to use ICT, how they use it, how

they master it and what the outcomes are.

Data Analysis

Theoretical assumptions about motivation and mastery provided a point of departure for exploration and development of categories during the data analysis. Such grounding in the literature may counteract bias by expanding the researcher's understandings of multiple ways of viewing the phenomenon (Morrow, 2005). The data analysis involved the interplay between the researchers, the transcribed data material and theory.

The aim of the analysis was to identify what Fetterman (1998) refers to as patterns of thoughts and behavior and by this, to answer the research question (Merriam, 2009). In the search for patterns of thoughts and behavior, the data material was analysed by means of constant comparison (Glaser & Strauss, 1967), a process that involves breaking down data into manageable pieces within each piece compared for similarities and differences. This initially involved that both analysts (the authors) read the interview transcripts to gain an overall sense of the data. All of the data were then read again by both analysts and "open-coded" independently to produce an initial code list. Next, a collaborative coding procedure (Saldana, 2009) was applied which involved that the analysts compared the codes by discussing similarities and differences. This involved constant considerations and revisions of the codes (Miles & Huberman, 1994). This descriptive phases of the analysis built the foundation for the interpretative phase where meaning is extracted from the data (Patton, 2015). In the interpretative phase, the analysts started searching carefully for recurring traits in the data material. These regularities revealed patterns that were sorted into categories. During the descriptive and interpretative phases of the data-analysis processes credibility was enhanced through the close collaboration between the two researchers as each served as a peer de-briefer for the other throughout the analysis. We engaged in "critical and sustained discussions" (Rossmann & Rallis, 2003) and thus served as a mirror reflecting each other's responses to the research process.

Analyses and Results

All participants owned their own computer or tablet, and all of them owned a cell phone or smartphone. All of them were users of ICT, but at varying levels. Some described themselves as reasonably competent users (e.g. using programs such as Word and Excel in addition to using the Internet for a variety of purposes), while some described themselves as uncertain users (e.g. with a limited range of activities like only playing solitaire and simple games on the net, avoiding internet banking etc.).

Three main categories became evident in the data material. The category *Challenges* describes new types of challenges that the participants experienced in their everyday life due to the rapid digitalization of society. The participants also touched upon topics such as perceived pressure, technology as a barrier and feelings of fear. The category *Connectedness* describes how the participants experienced positive feelings when being connected to other people and what

was going on in society. The third category *Expanding* describes how the participants experienced positive feelings about technology usage as a tool contributing to the expansion of their everyday life activities.

Challenges

A recurring trait appearing in the data was the emphasis on challenges. The participants experienced that the rapid digitalization of society had brought about a number of *new challenges in their everyday life*. These were related to activities that they up till now had managed well in their everyday life, for instance using bank, health and public services (e.g. checking on pensions and tax returns) and buying tickets for public transportation. The participants provided examples of how they were encountering more problems due to the "paper-free" society. One of the relatively competent users expressed that internet banking is a good solution, but there are challenges:

> *I must say that it's (internet banking) easy and a better solution. However, there's a lot of stuff you need to pay attention to. You need to control everything! Everything is delivered electronically (bills). If you're on holiday, you can't just forget about it all, there may be a bill that needs to be paid. One must be ON all the time. You cannot just go hiking in the mountains for three weeks and leave the digital world behind. When you're back home again you may find that there are bills you haven't paid in time. (Oliver, 76 years).*

Despite being a relatively competent user, this man is not completely in control. He is obviously not aware of the bank function where you can preset a date for payment of your bills, if you have no access to your computer for a period of time. In other words, there is a lot to relate to – people feel they need to be "plugged in" to have full control over such aspects as their personal finances.

Another participant told about problems he got into when it came to using public transportation:

> *Now we have these electronic tickets on buses, and the timetables are gone. That was a bad thing the bus company inflicted on us. This new arrangement came too suddenly, and it was implemented in a clumsy way. They (the bus company) tell us that everything is online – everybody can find their bus route on the internet. I needed help to download the route to my phone. Now I have lost the overview, and I get confused if I need to change buses. I can't quite understand how they think. The time was not ripe for removing the printed timetables. (Mike, 76 years).*

This man explains that he has lost the overview and gets confused. One of our oldest informants also told that the digitalization of the bus timetables had restricted her radius. She said: "I sit and wait for the bus, I don´t know when it arrives anymore. I don´t know when it leaves from downtown either. I really don´t know what to do…" (Sally, 90 years).

Overall, these utterances illustrate some of the problems that older people are exposed to in everyday life, and the impression is that regardless of their user level, it is not easy to master all the new elements of being a digital citizen. The

informants seem to be deprived of mastery in their everyday life, which they previously used to master without problems.

Another challenge was a *perceived pressure* to start using digital technology. The rapid digitization of society was seen as an external and thus inevitable force. This external pressure was widely talked about by the participants in our study:

> *Society is forcing people to get everything from the net (...). Beyond a doubt, all the elderly just have to accept that this is the way it's going to be. And they HAVE to learn in one way or another. (Bob, 88 years).*

> *It's like you have to keep yourself updated. It's a bit wrong to say that the computer world isn't something you have to care about. Because it gets really hard in life if you can't use the computer. (Frederick, 65 years).*

> *The banks are not open anymore for personal service. You can't withdraw money there, and the ATMs are gradually disappearing. In other words, everything is now online. We don't have any alternatives. They force this on us (Oliver, 76 years).*

As seen in these utterances, this "force" is strongly inflicted on them since failing to keep up with the developments would place them at risk of being incapable of dealing with basic aspects of everyday life. Although some participants found it very difficult to use ICT and expressed an unwillingness to keep up with developments, they realized the necessity of mastering it:

> *I feel that I HAVE to get into this computer thing, but I feel it's VERY difficult for me. Because I DO NOT want to do it. I just do it because I HAVE to. Because I feel.....left behind in a way.... in a situation where everyone else is sitting on another planet saying: Hello there, you don't master this, you need to come here – because it's good to be on this planet. (Gabriela, 76 years).*

As shown in this utterance, some of the interviewees were also worried that they risked being isolated and excluded from society and activities they had been part of before the digital "revolution". Their motivation to try to avoid this was, in other words, extrinsic.

Yet another dimension of the category Challenges was connected to negative experiences in trying to handle the *complexity of the digital technology* in itself. The perpetual updates, the variety of programs for different purposes, remembering passwords and being exposed to information overload on the net was perceived as a barrier:

> *I tried to update to Windows 10 myself, but it caused problems [...] I had to ask for help. However, even the specialist ran into problems. It's "Greek" to me. I don't understand anything of what he's doing ... he's fumbling back and forth ... and all these new windows keep popping up. He dives into the deepest secrets of the computer. So, it's not easy, you know! (Oliver, 76 years).*

> *It's the net that's confusing. You orient yourself about the net – and then come the updates, and then comes all these unnecessary things, THAT'S*

where it gets complicated to keep yourself up-to-date. The net expands ten times, like – all the impulses and things you have to decide – you have to understand in a way. There is SO much to grab hold of. (Mike, 76 years).

These utterances illustrate that despite being a user with some skills and knowledge of technology it is at times difficult to master all its aspects. Digital terminology itself also presents a challenge for some:

There are so many concepts –You lose sight of what each one of them means – the terminology you haven't grown up with and learned. (Oliver, 76 years).

This unfamiliarity with the universe of technological concepts caused problems. Some avoided asking others for help for fear of being ridiculed and laughed at. The English language also represents problems for quite a few of the oldest informants. All in all, the informants pointed out that dealing with technology as such was quite difficult and represented a barrier that undermined their confidence.

Last but not least, a *feeling of fear* was another dimension of the category Challenges. This fear was associated with data security matters and personal vulnerability. This was explained in terms of losing control and concern over having personal data stolen or manipulated. Particularly, digital banking and online shopping was mentioned. Some of the informants had run into problems themselves, and others had heard "horror stories" about other people losing money:

I manage digital banking, which is not the problem. However, two years ago, when I was trying to log on to pay my bills, a warning popped up: "Someone has tried to access this website". I panicked, and since then I have not touched the computer. I kept wondering who this might be [...] the computer, online banking, and all these things turned me off... (Hollie, 70 years).

It can be quite scary you know (online banking). Some people don't know how things work, and they feel they might ruin things. Losing their money is the most scaring thought. For this reason, you need to be confident in using the computer before you start using online banking, or else you run into problems. (Janet, 74 years).

Many shared the fear that intruders might break into their bank account. Punching the wrong button on their keyboard was another factor in the fear scenarios they described. People feel out of control and helpless because they are unable to protect themselves (physically) from deception and crime.

Another fear that arose was the risk of being cheated while shopping online. Some of the interviewees shopped online, but many others expressed that they were skeptical about buying things on the net:

One thing I don't like – that's online shopping. I don't trust the people selling the products. There are so many scoundrels around. (Philip, 79 years).

> *I will NEVER EVER do it (online shopping). Dangerous, dangerous! I will never leave my credit card code on the net. Never in my life! (Ruth, 76 years).*

However, most informants were aware that online shopping is becoming more and more common, and in a few years perhaps it will be inevitable, but they still expressed a high degree of insecurity and unwillingness to submit to this fact.

For older people, it is obviously a challenge to master and control all elements of the digital society. Our data material shows that this challenge includes handling the devices themselves, gaining sufficient skills to use them and developing confidence in being an internet user. Our informants displayed various levels of skills, but there was a note of underlying skepticism and fear in everyone. It is not always easy to navigate safely in this complex landscape. In other words, compared to their "pre-digital life" they experienced a decline in mastery connected to dealing with basic everyday life activities.

Connectedness

Despite all the challenges the older adults encountered, they also emphasized that their ICT usage had some positive impact on their everyday lives, especially when it came to social aspects. Their motivation for using social media was that it opened possibilities to connect in new ways with society, family and friends. Most of the participants used the Internet to access information, like the news and the weather forecasts. Many of them also used e-mail, skype, MMS on smartphones and Facebook to communicate with others. By far, Facebook was the most used communication channel, and many described it in positive terms:

> *I use Facebook a lot. I have many old friends in the States from when I was a sailor, 40 years ago. We talk to each other, you know, and send private messages. I think it's great to be on Facebook, so much fun. I have not met them in person, but I searched for them on Facebook and invited them to be friends. Wow - It's so much fun, they say! (Frederick, 65 years).*

> *And then I'm on Facebook, you know. I kind of like that, with family and things like that – pictures and things [...]. It's quick, you know, chatting, right? Compared to what it used to be like, I'd send a letter (laughs). (Carol, 76 years).*

By enabling social contact with family and friends, the use of technology has added a new sense of joy in their lives. This seemed to support social inclusion and feelings of connectedness:

> *Yeah, it means a lot. Because I think – I don't know how to explain it ... I get into touch with a lot of people, and – keep an eye on what's going on, a little. Things like that. Because I live alone, like, and then I need to have something to do. (Irma, 69 years).*

Most of our informants used new social media and perceived this as a positive aspect in their lives. We found few indications of fear or being out of control in this respect. On the contrary, they felt connected to other people and what went

on in society. This indicated the presence of a distinct inner motivation about this activity.

Expanding

The third category "expanding" reveals that ICT may be used in ways that make older adults feel that everyday activities are expanded, for instance enabling them to overcome physical barriers. One of the oldest informants told that she used her iPad to take pictures, and she often went on the net to "re-live" her many trips from some years back when her health was better:

> I travel to where I used to go. I look at the map (google). And I have taken so many beautiful pictures – it gives me much joy. (Alice, 85 years).

Digital technology was also used to pursue a wide range of personal hobbies and interests. Some participants were members of interest groups on the net while others searched for information about their special interests and hobbies:

> I took a course once in painting and joined the others from the course on Facebook. I was able to stay in touch with them, see how they worked. It was very nice (Diane, 72 years)

> I'm interested in old cars, so I search a lot on the net to keep updated – and to find spare parts for my veteran car. I'm a member of both the veteran car club in town and the Mercedes club, and I keep in touch with the other members through the net. (Neil, 62 years).

In this way, the net contributed to expanding their possibilities to keep updated about their hobbies and interests. It also opened for online participation in interest groups and online contact with likeminded people all over the world. This way of using the net is an indication of autonomy. In other words, using ICT is motivated from within, and is perceived as enjoyable for many.

Discussion

This article set out to explore the reasons and motivations underlying older adults ICT usage, and how this affects their perception of mastering their everyday lives. Our main findings indicate that the digitalization of society has brought about rapid, comprehensive changes in terms of how to deal with activities of daily living that our participants previously managed without problems. Examples of this were having to access the internet in order to buy tickets for public transportation, online banking, and dealing with the health and public services. This brought about feelings of urgency and perceived pressure to keep up with the latest developments. Our sample expressed that failing to be part of the developments would put them at risk of being incapable of dealing with important and until now familiar everyday activities. This is in line with Selwyn's (2004b) and Sandhu et al.´s findings (2013). In Deci & Ryans terms (1985, 2002), such lack of autonomy and feeling of competence may lead to reduced psychological well-being and optimal functioning in their everyday life. In other words, they described having to adopt to digital technologies as something that was forced upon them and unavoidable without devastating consequences. Fear of isolation and exclusion from society was an obvious

scenario for many (Helsper, 2012). According to Deci & Ryan (1985, 2002), when individuals' need for relatedness (i.e. being connected to society and other people) is unsupported, it may have a detrimental impact on wellness and feelings of inclusion.

However, the results from this study show that nearly all the participants have access to the devices and the net that they need to be active digital citizens. There was no access gap that frequently is referred to as the 'first-level' digital divide (Blank & Groselj, 2015; Friedmel, 2016; Philip, Cottrill, Farrington, Williams & Ashmore, in press). Despite this, most of them seem to lack sufficient skills to feel relaxed and able to keep up with the rapid developments. This is similar to the findings from other studies (i.e. Sandhu, et al. 2013, Hill, Betts & Gardner, 2015). New things are introduced constantly, and need to be addressed quickly. This situation calls for permanent vigilance so one is not "left behind" in terms of skills and control, a state that characterizes the second digital divide (Friedmel, 2016). We also found tendencies in our study that indicated a further divide that is worth attention, the so-called "grey divide". This implies the existence of differences within the group of older adults, often connected to having been a computer user or not before retirement (Friedmel, 2016, p. 325, Kania-Lundholm & Torres, 2017).

The motivation for trying to keep up with the increasing rate of digitalization, especially when connected to vital everyday activities, was, to use Deci and Ryan's terms, extrinsic and internalized (1985; 2000). Many of the participants had some prior, although varying skills from their working life. Our sample of older adult users seem to fit into Prensky's category "digital immigrants", meaning that they had acquired their skills later in life (not born into the digital world) (Prensky, 2001). This may offer an explanation to why most of them expressed a certain resistance to and resignation about the situation, and many felt a certain fear. This shows that users as well as non-users may experience some degree of what Selwyn (2003) describes as "technophobia". However, they acknowledged the value of being "more digital". The reluctance and the doubts that were expressed in relation to their ability to learn and master the digital world were due to low self-efficacy (Bandura, 1977, Damodaran, Olphert & Sandhu, 2014). Many of the interviewees could not imagine how they would be able to cope with the technical complexity of the devices, software updates, information overload, fraud and deception on the net, not to mention the problems remembering passwords. These factors reveal fears that may be rooted either in experienced, or suspected cognitive decline that naturally occurs with aging (i.e. memory, organizing large amounts of information) (Umemuro, 2004; Sandhu et al. 2013, Berner, 2014). Most of the participants in this study were in their late 70s and 80s, people Bandura claims are prone to avoiding situations they believe "exceed their coping skills" (1977, p 194).

On the other hand, many of the participants claimed that their use of technology created positive experiences and feelings of connectedness. This was in particular linked to using social media, for example Facebook, which enabled them to connect to other people. A similar result was also found by Selwyn 13 years ago (Selwyn, 2004). This way of using new technologies and mastering the social aspects of everyday life can be understood in terms of Deci & Ryan's (1985, 2002) emphasis on individuals' need for relatedness. Googling the

weather forecast, news and information about what was happening in society was also popular and viewed as a rewarding activity. This was an aspect of the technology that was perceived as voluntary and not forced upon them; consequently, it was an intrinsically motivated and autonomous activity, driven by interest and joy. They felt that their world expanded and new possibilities had opened up to them. Even though different levels of skills and mastery also were present here, most of the participants basically felt that they were able to cope with what they needed to do.

Our study of how older adults cope with the digital everyday life has some limitations. First of all, the study is based on a small sample. New studies with larger samples might enable the researchers to search for contrary and parallel cases with reference to broader data material. Also, multilevel explanations could have been applied to explore variations of use in our sample. As shown from previous research (e.g. Friemel, 2016), the reasons for both eagerness and reluctance to use ICTs among this group are also structural and refer to social contexts, networks, material resources, education and so on. These limitations notwithstanding, the study provides new insights into a varied group of older adults' introduction to and perception of their digital everyday life. These findings may be helpful to policymakers when they plan for future developments. As aspects of daily life continue to become increaseingly reliant on digital technology, it is vital that older adults are provided with opportunities to gain sufficient skills. This leads to the vital question: how do we go about ensuring that older adults are able to participate fully as competent citizens in today's digital society? To satisfy their need for competence, it is important to be aware of how such instruction and advice can best be conveyed to them so they can increase their skill level and self-confidence. This means considering carefully the learning environments, contexts and teaching practices that can be most beneficial so this can be achieved. The main aim, as we see it, is to protect and enhance these older learners' self-efficacy and motivation to learn.

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