Older adults experiencing and balancing the ambivalences of digitalisation in everyday life

Media repertoires as resources in domesticating emerging technologies

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ABSTRACT

Older adults have been found to conceive digital technologies as both helpful and problematic in their everyday lives. Based on a qualitative analysis of diaries and interviews with 40 older Finnish adults, this study identifies efforts they engage in to balance this ambivalence. I approach such balancing practices through the theoretical lens of domestication: the process of integrating technologies into everyday life. By combining the concept of media repertoire with the domestication approach, the findings illustrate how ageing individuals take advantage of their media repertoires in the process of making digitalised societies liveable. In order to include ageing individuals in societies that increasingly demand engagement with emerging technologies, then, means that services should be designed in ways that allow them to be integrated into older adults' media repertoires that have been being formed for decades.

KEYWORDS: older adults, digitalisation, domestication, media repertoires, digital technologies

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Introduction

A central concern associated with digitalisation is how it compromises control over two valuable personal assets – time and data – as Kitchin and Fraser (2020) argued in their book *Slow Computing*. First, Kitchin and Fraser (2020) associated the demands of always-on availability and multi-tasking with the collapse of temporalities over digital networks, which they referred to as "networked time". Second, digitalisation spurs datafication, which refers to the quantification of everyday life into data that can be analysed to produce further value (Flensburg & Lomborg, 2021). The circulation of data is often opaque to the individuals whose actions it is based on and whom it affects, and individual efforts to control it are made difficult by design (Draper & Turow, 2019).

At the same time, digital connectivity is seen as helpful in everyday life in supporting the management of time and data. This ambivalence between the problems and benefits of digitalisation sets the context for this study. If not solved, the tensions might result in losing the experienced benefits of digitalisation, for example, when individuals find the use of digital technologies too burdensome and therefore refrain from using them. I presume that individuals aim to resolve this ambivalence through practices that I refer to as balancing. I use the notion of balancing to describe the continuous efforts that individuals engage in to find a place for the technologies in their everyday lives. This study asks, first, what ambivalences are related to digitalisation and datafication that older adults experience, and second, through what kinds of practical arrangements and reflective statements these ambivalences are balanced.

To study the practices through which older adults aim to make digitalised society liveable, I draw on the theoretical framework of domestication. I borrow from the domestication framework especially the idea that the process of embedding emerging technologies into everyday life is not always successful; it may even be reversed (Karlsen & Ytre-Arne, 2021). The domestication viewpoint, however, emphasises the active role of individuals in embedding digital technologies in their lives, rather than people being solely targets of digitalisation. Further, the domestication framework acknowledges the importance of contextual factors in this process. Use of technology is not approached only as choices made based on a set of predefined values or constrained by the structural context, but as simultaneously (re)creating the values and norms embraced by the individuals within the setting in which domestication occurs.

Kitchin and Fraser (2020: 3) covered a variety of concrete ways, ranging from preferring physical shops to supporting fair data initiatives, to live "balanced digital lives", that is, regaining control over personal time and data without abandoning digital media. Recent empirical studies (e.g., Helms et al., 2019; Karlsen & Ytre-Arne, 2021) have described how people already engage in what I consider examples of such balancing. These include dedicating time and space for being connected and being away as well as interpersonal efforts to communicate this dedication with others (Helms et al., 2019; Karlsen & Ytre-Arne, 2021).

The focal takeaway from the earlier studies is that rather than totally "unplug-

ging", individuals aim for a balance between constant connectedness and their professional or personal life. The burden of balancing is often placed upon the individual, although the tensions reflect wider societal concerns – for example, how the work–life balance is organised on an institutional level. Thus far, studies have largely focused on work contexts and younger generations. In this article, I build upon these findings and extend the scope to retired older adults.

While each generation engages in such balancing, older adults provide a particular perspective on this issue: They have witnessed the full transition to digital, ubiquitous connectivity, and they have experienced the services meaningful in their everyday lives being digitalised. Older adults, regardless of their generation, have used a variety of technologies to carry out their daily errands over the years. This differentiates them from younger generations, who may have started using a particular service, such as banking, with only the latest technology.

Quan-Haase and colleagues (2016) interviewed older adults whom they called "digital seniors": those who are already "connected" and have experience with information and communication technologies (ICTs). They found that while young generations create their everyday routines around ICTs, thus becoming more dependent on them, older adults may still engage with a vast array of formats. While investigating the emerging trend of digital "disconnection" – choosing to stop using or limit the use of certain ICTs – among older adults, Nguyen and colleagues (2021) found that rather than discontinuing the use of digital media altogether, the participants switched to a mode they found most suitable for a particular purpose. They did not find disconnection as troublesome as younger adults did in other studies, indicating that older adults are less dependent on digital media.

The concept of media repertoire (Hasebrink & Popp, 2006; Hasebrink & Domeyer, 2012) has proved useful in depicting how older adults have a range of media from which they choose the ones they are willing to engage with. Research teams led by Quan-Haase (2016), Nguyen (2021), and Carenzio (2021) illustrated the centrality of extensive media repertoires in characterising the role of digital technologies in older adult life. Stemming from these earlier studies, in this article, I use the concept of media repertoire to emphasise that older adults actively seek to use digital technologies in ways that they find to be the most suitable for them.

A study that adds value in several ways is that conducted by Hänninen and colleagues (2021a), who introduced the concept of digital repertoire to focus on the digital services and devices that their older participants used and the ways they used them. They found that digital and more traditional media (e.g., phone calls) are intertwined, as older adults aim to run their daily errands by using services that are, to a large extent, digitalised. They further emphasised the social dimensions of digital repertoires: Repertoires can be shared with other people and thus extended, as in the case of friends or relatives helping older adults to use digital services. The authors described how their participants negotiated a balance between their current digital repertoires and the repertoires that digital services demand. These older adults noted that it is important to

not let digital technology control one's life. In particular, having to put too much effort into using the technologies was considered something to avoid. Hänninen and colleagues (2021a) concluded that the participants resorted to such balancing especially when their digital repertoires were too narrow to sufficiently fit their everyday needs. In the current study, I presume such balancing to happen regardless of the width of individual media repertoires. I approach balancing as a way to cope with the tensions related to digitalisation, such as those between the perceived benefits and the efforts needed to learn to use new technologies. I set out to explore how media repertoires may support this balancing.

Including the perspective of older adults in discussions of how people manage technological change is crucial from a societal viewpoint, as new generations will most probably face similar challenges as they grow older. Studying how older adults embed digital technologies in their everyday lives and what kinds of meanings they give to them could provide important insights into a future of increasing digitalisation. Following Knowles and Hanson (2018a), I assume that despite the level of their experience with new technologies, individuals growing old in digital societies will face novel formats that compromise their routines, values, and needs, but at the same time, these same formats can be viewed as useful and intertwined with social relationships. Ageing individuals thus need to balance the relationship between their existing spheres of life and these emerging technologies.

Older adults have been building their vast media repertoires throughout their lives, and therefore, I expect them to have a comprehensive view of the variety of technologies embedded in everyday life. Further, I presume that this comprehensive view provides a nuanced understanding of the ambivalences of digitalisation identified in previous research. Older adults' everyday experiences have the potential to question the impacts of digitalisation, such as the demand of being constantly connected, which are largely normalised in digitalised societies.

In the following, I first cover previous research on how older adults embed digital technologies in their everyday lives, and then I extend the discussion to research drawing on the theoretical background of domestication. Second, I discuss the methodological choices made to continue to the findings, which are organised along the themes identified in the analysis. Finally, I reflect upon the findings in the conclusion.

Older adults (dis)engaging with digital technologies

The ambivalences of digital societies are prevalent in how older adults have been found to conceive digitalisation as both helpful in daily life and threatening to their individual control over it. Pirhonen and colleagues (2020) illustratively captured these aspects, arguing that for older adults, perceptions of digital technologies are "Janus-faced": The same individuals may embrace both sides. They found that this ambivalence had a special undertone in the case of older adults, as the drawbacks of digitalisation were associated with the difficulty of keeping up with the pace of technological development when ageing. Moreover, many

had societal concerns over the forgotten needs of older individuals in the design of digital technologies and services as well as the decrease in human contact in services and communication they have experienced over the years.

As Knowles and Hanson (2018b) argued, older adults who perceive drawbacks in the use of digital services do not necessarily refrain from using them. While distrusting digital services or themselves as users, older adults still use the services, such as online banking. Knowles and Hanson noted that distrust is rather a way to protest the changes that clash with the values the participants hold, such as privacy, fairness, and social responsibility, and the demands of "successful ageing" that involve the need to constantly learn how to use new technologies. Distrust therefore does not stem just from the technology itself or from low self-confidence in using it. Instead, distrust was expressed by the older adults to bring wider societal issues – such as the perceived collapse of private and public spheres and the imbalance of wealth and power – into the discussion. Similarly, Hänninen and colleagues (2021a) determined that even when older adults found digital services useful and used them regularly, they did not necessarily *like* using them, and instead resorted to more traditional media.

Older adults who regularly use digital technologies and services have been studied qualitatively to understand, for example, the possible challenges involved even if digital inclusion is "successful". Quan-Haase and colleagues (2016) concluded that to navigate in an increasingly digital society, digital seniors recreate existing practices using ICTs as well as create new and hybrid practices around them. The participants were found to value their own agency regarding the ways in which they used ICTs, for example, when they chose print formats over digital ones, or when they decided to search the Internet and when not to.

Building on the earlier studies that identified older adults' ambivalent conceptions of digital technologies and the practices they engage in to navigate in digitalised society, I interpret these conceptions and practices as acts that function to balance out the ambivalences, or at least to make them liveable. Balancing is not necessarily purposeful nor successful, but the focus is rather on the process through which it occurs to give a more nuanced picture of the efforts entailed when living in a digitalised society as an older adult. I presume that despite disconnection being less troublesome for older adults and that they successfully navigate in a digitalised society, it still requires effort. Elaborating on these efforts would help identify issues that can be expected to arise with increasing digital inclusion. The concept of domestication provides an analytical lens through which to view the process of technologies becoming part of everyday life.

Domestication

Roger Silverstone, Eric Hirsch, and David Morley (1992) introduced the theoretical framework of domestication to bring an aspect of everyday life into studies explaining how people accept and use new technologies and innovations. The framework emphasises the active role people play when figuring out how to fit technologies into their everyday lives, and the moral questions and conflicting

norms involved. This theoretical approach proved useful for this study, as it focuses attention on the context of using technologies as well as on how individuals attach meaning to the technologies they use.

The domestication process was originally understood to span from the acquisition of a technology to the point where it becomes such an integral part of everyday life that it is taken for granted. Though originating in the 1990s, when media technology was largely confined to the home and mobile technology was still marginal, the concept of domestication was soon extended to cover the fluctuating boundaries of home and work (Haddon, 2011, 2016). Also, the studies applying the framework came to cover a range of digital technologies and services (Berker et al., 2006; Haddon, 2016), including smartphones (Thulin, 2018) and social applications (Matassi et al., 2019; Sujon et al., 2018). As Haddon (2016) argued, the domestication framework is useful for studying the increasingly complex media repertoires of people living in digitalised societies, for example, how a certain combination of technologies is used in a certain context. Domestication studies have often focused on one technology, but some have used the concept to refer to a range of digital technologies (e.g., Karlsen & Syvertsen, 2016; Karlsen & Ytre-Arne, 2021; Martínez & Olsson, 2021; Olsson & Viscovi, 2020; Sandberg et al., 2021). In this study as well, the participants defined what is included in the range of digital technology. The focus of my analysis was on situations in which the participants expressed that they encountered digitalisation in one form or another.

A few studies have covered older adults' domestication of particular digital technologies (e.g., De Schutter et al., 2015; Matassi et al., 2019; Nimrod, 2016; Nimrod & Edan, 2022). Longitudinal studies of the domestication process of one particular technology, such as that by Nimrod and Edan (2022), have offered valuable insights into how domestication happens in practice over the course of time. Other studies (e.g., Olsson et al., 2019; Olsson & Viscovi, 2020) have emphasised that an individual's material, discursive, and social resources affect their media repertoire: More resources means a wider repertoire and success in domesticating new online media.

For the study at hand, the domestication approach functioned as a basis for understanding the use of digital technologies as constant balancing. The focus was on how individuals reflect on and practically arrange their lives to fit the increased digitalisation of services meaningful for them. Most importantly, for Karlsen and Ytre-Arne (2021) as well as for this study, domestication was not always found to be successful: It may be reversed or interrupted, and, in any case, it requires effort, sometimes a lot, from individuals engaging in it. This was also illustrated by Ask and colleagues (2021), Sandberg and colleagues (2021), and Widmer and Albrechtslund (2021), who captured the parental "struggles" involved when digital technologies (e.g., tablets, games, location-tracking apps) are domesticated in the family. The struggles identified include negotiating control and care in the case of location-tracking apps, and the concerns and benefits related to digital media, such as games. The studies covered ways in which parents aim to manage these struggles, for example, by framing the use

of location-tracking apps as care (Widmer & Albrechtslund, 2021) or curating the games children played (Ask et al., 2021). Further, as Ytre-Arne (2019) noted, changing life situations, such as retirement, involve transformations in individual media repertoires as they are integrated into the moral economy of the new life situation.

From the domestication viewpoint, the use of technologies is not approached only as choices made based on a set of predefined values or constrained by the structural context, but as simultaneously (re)creating the moral economy of living with technologies (Silverstone et al., 1992). The concept of moral economy refers to the set of values and norms negotiated by individuals within the setting in which domestication occurs (Silverstone et al., 1992). While acknowledging that technologies are not used in a vacuum but are rather entangled in a nexus of norms, values, social expectations, and so on, the moral economy should not be considered as a reified entity against which technologies are weighed, as Martínez and Olsson (2021) noted. Instead, the moral economy evolves, as do the meanings attached to technologies in the domestication process (Berker et al., 2006). In this study, the ways the participants fit digital technologies into their lives are considered as constructing the moral economy through expressing how they should or should not be used.

Domestication is often also a question of boundary management: Boundaries are challenged and need adjustment. The participants in this study were retired and did not concretely need to manage work–household boundaries any longer. However, I presume that boundary management concerns the extent to which the connectivity provided by digital technologies is embedded in everyday life. The need to disconnect and the conflicting need to be reachable – related to working life, social media, or messaging apps in general – may not apply to retired older adults as such. Nevertheless, the expectancy of being in control of one's use of digital media may remain an important issue. Activities in the public sphere, such as banking and health services, formerly done in public spaces like banks and healthcare clinics, have transitioned to the private sphere of personal digital devices. As Fast (2021) emphasised, efforts to balance out the negative effects of digital media use extend beyond work contexts.

Ferreira and Lampinen (2021) reminded us that managing boundaries can also be playful transitions to break away from everyday life, providing that the transition is temporary and reconnecting is viewed as an option. The authors described how long-term bicycle tours offer a relatively safe environment to play around with the boundaries of work and leisure, rather than totally disconnecting, for example, by deliberately choosing the situations of being connected. Their study illustrates that navigating increasingly digital societies involves constant balancing. Regardless of balancing being viewed as work or leisure, it may involve efforts, tensions, and possible anxieties. Thus, I set out to explore how these challenges manifest in the life of older adults and how older adults aim to manage them.

Methods and participants

To investigate the varied ways of balancing that older people engage in with digital technologies, I employed a qualitative approach. The research material comprised diaries from and interviews with 40 older adults living in Finland at the time of research (August–November 2021). In Finland, the proportion of both older adults (Eurostat, 2021) and people using online services on a regular basis (Official Statistics Finland, 2021) is high, thus providing a relevant setting for studying how older adults navigate their lives in a digitalised society. The age range of the participants was 69–82 years old, and 22 of the participants were female and 18 male. The participants were recruited first from among people volunteering in peer-to-peer digital support programmes across Finland, and second through personal networks of mutual acquaintances. Participants included people from both rural and urban settings.

Volunteers in peer-to-peer digital support programmes were presumed to use digital technologies actively as a part of their volunteer activities. The other participants used digital technologies to varying degrees, but all participants used them to some extent in their daily lives, and most had used digital technologies in work contexts. All participants shared experiences of transitions in the media environment in a welfare state in the Global North. As persons who had already been retired for a few or several years, their use of digital technologies was not dictated by work contexts. Balancing the ambivalences of digital technologies was thus presumed to occur in daily errands and everyday communication rather than across the work–leisure dimensions covered in previous research.

Recruiting individuals who used digital technologies, some of whom were avid users, ensured that the material identified efforts to embed partly familiar technologies into everyday life, rather than just learning totally new skills. The material most likely represents the older adults of future generations in Finland and other digitalised societies: people who have used digital technologies throughout their professional and personal life. It illustrates the nuances of digital inclusion in a similar way as the study by Quan-Haase and colleagues (2016): Even though individuals are "digitally included", navigating digital societies still requires effort.

The diary method was chosen to elicit the aspects of digitalisation in everyday life that the participants found meaningful for themselves (Bartlett & Milligan, 2015). This way, the study was an answer to the call by Kennedy (2018), who argued that to enhance our understanding of datafied living, it is essential to study the feelings and thoughts of the people producing data by living their life – also non-experts' views on how living in datafied environments would work for them. Further, the diary method allowed the participants to control the amount and type of details they wanted to share (Bartlett & Milligan, 2015). Each participant first kept a diary of their everyday life for approximately a week, including accounts of encounters with digital technologies as well as their thoughts, feelings, and experiences related to them. Examples of topics to cover in the diary were provided, such as "situations in which something of

your everyday life is saved in a digital form". The format was not defined, but all diaries were eventually provided in written form, some including screenshots and photos as well. The length of the diaries varied from less than one page to six pages, with some being concise lists and others extensive reflections of living with digital technologies. Regardless of their stylistic approach, the diaries functioned to focus the interviews on the aspects of digital technologies that the participants viewed as meaningful in their everyday lives.

The diary method was also expected to function as a warm-up exercise for the interviews, which took place after the diary period. I modified the structure of each interview based on the topics each participant wrote about in their diary, thus allowing them to elaborate on their joys, concerns, and feelings and experiences in general, that they associated with digital technologies. Even if the participant had not covered them in the diary, I introduced some additional themes that I expected to elicit discussion on the aspects of digitalisation, such as social media. I conducted the interviews remotely. The recorded interviews were subsequently transcribed verbatim. The length varied 26–90 minutes, with an average of 48 minutes. I conducted the interviews in Finnish, and the diaries were written in Finnish. For the purposes of this article, I have translated into English any included excerpts. The participants are identified with numbers to sustain anonymity (e.g., P2, for participant 2).

I first investigated the material to find both instances that I interpreted as involving the ambivalences of digital everyday life identified in previous research as well as new ones. Second, with a grounded approach (Strauss & Corbin, 1990), I open-coded these instances to describe the balancing practices that the participants had engaged in to deal with the ambivalences. To form the final themes (presented as subsections below), I compared the instances with one another and modified the themes through a process of constant comparison to classify each instance under a theme (Strauss & Corbin, 1990). The ambivalences that older adults experienced regarding digital technologies are discussed under every subsection, as the themes describing balancing stemmed from the tensions experienced.

I chose the theoretical framework of domestication to analyse balancing as a constant process in which the participants were active agents. The methodological approach embodies this theoretical stance: The diary method and the interviews in which the diaries were reflected allowed the identification of practices the participants engaged in and found meaningful. Further, implementing the domestication framework connects the findings to broader discussions on the implications of digitalisation on everyday life.

Findings

Distributing technology use

The ambiguous character of digitalisation that the participants brought up in relation to their everyday lives resembled the ambivalences found by Pirhonen and colleagues (2020). The possibility of using services, such as paying bills and sharing messages and photos, were often mentioned as the joys of using the Internet, especially because they allowed engaging with other people regardless of time and place. The experience of the difficulty of reaching services, such as banking, health services, or phone operators, by calling them on the phone, not to mention finding a physical bank office, was a prevalent issue among participants, regardless of how routinely they used online services. Here, the participants compared the current situation with the past, and the change was considered to have already happened during the past two decades.

Despite the fact that the transition the participants identified paralleled the growth of the commercial Internet, they did not always associate the change with technical development as such. Rather, saving in workforce costs and the disinterest in serving the needs of the elderly were mentioned as potential reasons for increasing digitalisation. Even among the participants who described themselves as being on the "nerdy end" (P2), the pace of technical change was considered too fast. Sometimes, this was the attraction that had motivated them to be interested in digital devices and services beyond necessities, as some felt there was always something new to learn. In any case, however, the participants acknowledged that not only were digital services and devices constantly changing their user interfaces, but also the overall functioning of the Internet (including datafication and the associated automation) was changing at such a rate that people must constantly update their knowledge and skills to keep pace with these changes.

On the other hand, the participants described several experiences in which they were able to reach people and manage their issues with them by telephone. For example, when asked whether they could renew library loans by calling the library on the phone, one participant responded the following:

> Yes. Here [in this city] it works really well. I have the number of that library on my phone, and there I can always easily renew all the books. (P40)

Reflecting findings from earlier research (Carenzio et al., 2021; Hänninen et al., 2021a), older adults in this study had a repertoire of ways of running their errands which they resorted to despite experiencing the diminishment of human contact in services they used.

Also, instead of mobile devices, many preferred to go online using a computer with a keyboard, especially when using services that required the use of personal information and concerned economic transactions, such as banking and health services. The participants explained that using a keyboard was easier and felt safer due to its larger size, as well as its familiarity: "First a check on the phone, quicker to check, then on the browser on the computer other actions, bigger

screen and easier to manage and view, from the phone you can also print out" (P38, diary).

While the opportunity to check, for example, public transport routes online was considered handy, the participants often described that they would rather check them on their "bigger" (P11) device, that is, a desktop or laptop computer, and in addition, print out the routes or write them by hand on paper: "I do these bigger things from the big computer, because from there I'm able to, for example, print out something, route options and the like" (P30).

While many participants did find the possibility of planning routes online very valuable for their daily life, exploiting the perceived advantages of mobile technology often also required them to prepare in advance. Preparing in advance could be done, for example, by printing or writing plans down in order to avoid relying on mobile digital technology (i.e., a smartphone):

> My printer quit last week. I had bought two tickets to the Opera online, but I couldn't print them. I forwarded the file by e-mail to my friend who printed out the tickets. You can view the tickets on the screen on your phone, but I dare not rely on that service. (P37, diary)

In addition, the smartphone itself could be prepared for diminishing the need to use it on the go:

> I've anyway managed to load on my phone a page, from which I can directly see the timetable for the two buses coming here. For example, if we're in a theatre, I can check from the phone the time the bus leaves from that stop, while my husband is getting our coats from the cloakroom. (P35)

Other people also contribute to the domestication process of ICTs through proxy use, as previously noted by Stewart (2007). The importance of warm experts, that is, people, typically children and grandchildren, who are not (necessarily) professional IT experts but help older adults to use or learn digital media, has been identified in several earlier studies (e.g., Dolničar et al., 2018; Hänninen et al., 2021b; Quan-Haase et al., 2016). The meaning of other people and shared media repertoires was identifiable in the data of this study as well: "That online bank is good, I hesitated first, but my nephew taught me how to do it, and it has worked well, and sometimes when my husband has some bills overdue, I pay them there" (P29).

I interpret this distribution of technology use as balancing that occurs between the concerns associated with digital technologies, such as usability and online safety, and the perceived advantages of online services, such as up-to-date information about routes and schedules. In addition to being a practical issue, I consider the distribution of technology use as a reflection of the values and norms held by the participants, such as being prepared in advance. These values are renegotiated while digital technologies are domesticated. Instead of succumbing to the immediacy that mobile connectedness provides, or disconnecting from it totally, the use of digital technologies is balanced with existing practices and values. I would argue that diminishing the need to use mobile technologies on

the go through distributing the use of digital technologies is a way to build the moral economy around the use of digital – especially mobile – technology.

Finding and creating lighter atmospheres

While many participants found social network services, such as Facebook, meaningful in their everyday lives, they often separated themselves from the superficial and confrontational atmosphere that they associated with the platforms. The approach the participants adopted resembles the findings in earlier studies regarding social media (e.g., Bossio & McCosker, 2021) that have shown how older adults do not see social media as something that would resonate with their social position as a member of older generations. Participants in this study often dissociated themselves from public figures or anyone who had a need or desire for self-assertion: "Especially these politicians and the like, why not others as well? It's a way of getting their voice heard, or themselves seen. […] Often I think […] in things that are quite trivial" (P5).

The participants described how they had found ways to manage social relationships online in ways that did not succumb to the heavy atmosphere of social platforms and, further, were experienced as suitable for their generation. First, those who actively used social network sites explained that they had found groups in which the atmosphere was lighter, such as groups covering the areas where they had lived earlier in their life, or hobby groups: "There are some [Facebook groups] with a lot of nonsense on them, but that mathematics group – with some other math-related things – keeps in line well" (P15).

Second, the content was chosen to allow getting in touch and maintaining contacts without sharing content that would be deemed too self-centred. Publishing often happened in groups rather than personal profiles:

> On Facebook, I quite rarely write on my own page directly. Really not much. [...] Maximum half a dozen times a year I'd say. But instead [I write] to groups. On group pages, I quite actively ask for some technical details or other instructions. (P39)

Among the participants who published content, some preferred nature motifs: "I had to tell the world that the apples are harvested, and the storm can come, it was actually quite essential to tell that and be pleased, we saved the apples just before the snowfall the next day!" (P18, diary). There were also stories relating to historical events, places, and phenomena, such as old sayings and dialects, as this exchange shows:

> First, I have a quite small number of followers, I mean on my personal Facebook page. […] But then there are pages like [name of the Facebook group]. There's that kind of general discussion: What's [name of the dialect]? What do you make of this text? And so on. It's more like chatter for entertainment, so to say. […]
>
> Interviewer: Have you put some sayings there yourself?

> Yes yes. Every now and then, if the discussion wanes, I'll put my own stuff there. (P9)

I conceive of these practices as balancing, as they allow for pursuing the aspects experienced as meaningful in using social media, but there are also efforts to mitigate the perceived drawbacks, as well as navigating the social position and norms related to older adults being visible on the platforms. The participants found and made space for more enjoyable atmospheres through managing groups and content. I posit the sharing of content, such as old sayings, which were not considered as self-enhancement as readily as self-portraits, was a means of building a space, or a moral economy, for older adults to enjoy the perceived value of social interaction without the off-putting self-enhancement. Instead of publishing content constantly, the participants had in their media repertoire other ways of socialising online, including interacting in groups rather than personal profiles and publishing content not deemed too personal. In this sense, they took advantage of their media repertoires to find and create lighter atmospheres, as well as to extend the moral economy built around more traditional forms of communication to certain spaces and content on social network services.

Taking your time when sharing

In addition to managing the boundaries of the content that they published and saw online, the participants described how they traversed the temporal dimensions of social media. Echoing Lüders and Gjevjon (2017) and Nguyen and colleagues (2021), the participants in the study expressed having neither concerns nor pressures over not answering or publishing immediately or constantly. Publishing content was more of a way of saying that they were "still alive" (P1).

In contrast to aiming for constant connectivity, or viewing it as a forum for discussion, social media could be compared with sending postcards, as described by one participant: "Rather than for discussing with people, I see Facebook as a postcard. In the old days you exchanged postcards [laughs] and now you can send the same postcard to several people" (P3). Like a postcard, the content is designed to be nothing too personal or tied to immediacy, but still mediating a message of connectedness and care.

For many participants, digital photography was a meaningful part of their media practices. When discussing photos, participants often mentioned projects they worked on with the photos and videos they had taken: "the photos from the phone I transfer to the computer and of the most important, I do photo books every year. Then they are saved, and somehow, they are in a sensible form in that book" (P25). For archiving and sharing, the participants often preferred hard drives and USB sticks over cloud services. Cloud services were sometimes used to store photos, typically with the default settings of the operating system or photo application. However, the participants seldom saw any value in the possibility to share the content or collaborate online and even questioned the reliability: "It's a bit floating, like clouds are. You don't know where it's saved […] I don't somehow trust that you could save things in it" (P12).

The lack of interest in cloud services did not, however, imply that sharing projects with others would not be meaningful. Photo compilations, and video edits as well, could be shown to others in face-to-face situations, either on screen or in paper form, as explained by one participant:

> I have these young relatives – or they are almost adults already – who used to [ask] about my trips to China. Always when they visited me they asked if they could check out the China book again. It has such peculiar photos. (P37)

Photos and other memories are not necessarily edited for sharing by default, but rather worked on over longer periods of time and saved on physical hard drives or in printed form. The participants reflected on their long experience of "escaping" (P6) formats, considering it as one of the main concerns related to digitalisation and technological development in general. Their media repertoire included formats such as 8 mm films, from which memories had become hard to retrieve:

> Today they're outcasts on my top shelf […]. Of course, I've had a positive intent that someday I'll go and digitise them, but that day hasn't come, and I don't think that it'll come very soon. That formats escape […] somewhere beyond the horizon, that is a big problem. (P6)

While the repertoire of formats developed over decades was experienced as creating problems, as it was comprised of formats that had become obsolete; the participants gathered, edited, and shared their memories in formats they trusted and viewed as fitting their needs and interpersonal relationships. I consider this as evidence that the participants appropriated digital technologies in ways that created a space for socialising within environments dictated by demands of constant connectivity, immediacy, and sharing, without the need to wholly comply with them. However, I would argue that this is not just appropriation, but also a way to make and transform the spaces for interaction, taking agency in constructing the moral economy of using digital technologies in older adult life. In this endeavour, the participants took advantage of their media repertoire, including print formats, video-editing projects, and sharing content less frequently.

Conclusions

This study identified ways in which older adults balanced the tensions that digitalisation brings to their everyday lives. In line with previous studies on older adults' relationships with digital technologies, the tensions were centred around concerns over diminishing human contact, threats to privacy, and the heavy atmospheres of online platforms. Based on a qualitative analysis of diaries and interviews covering the role of digital technologies in everyday life, I identified three main ways in which these concerns are balanced with the perceived advantages of digital technologies: ensuring preparedness by distributing technology use; finding and creating lighter atmospheres; and taking time with sharing. The findings illustrate that balancing requires effort, whether practical arrangements

or mental approaches.

The media repertoires of the participants thus consisted of their skills in using a variety of formats and combining them with each other, finding and making spaces for communicating on social media platforms, and sharing digital content at their own pace. I would argue that these observations illustrate how the moral economy around digitalisation in the everyday life of ageing individuals is both maintained and built. The use of media repertoires in these ways both reflects the nexus of practices and values that new technologies are domesticated to and functions as a marker of what the role of digital technologies should be. Ageing individuals (re)construct this moral economy against the societal background of digitalisation and datafication, but at the same time, they take agency to manage how technological change imposes upon their everyday life. I maintain that this management takes place through the practical arrangements and reflective statements identified in this study, and that ageing individuals may resort to their wide media repertoire to engage with it.

I would also argue, after coming to conclusions similar to those of Karlsen and Ytre-Arne (2021), who studied knowledge workers, that domesticating digital technologies is a constant process. The balancing identified in this study may not result in digital technologies being taken for granted, which is defined as the endpoint of a domestication process. However, the use of digital technologies can be continued through these efforts. I consider that the flexibility of the domestication process – the efforts involved as emerging technologies are balanced with the moral economy of everyday life – is also a key to digital inclusion. The possibility of engaging with digital technologies without taking them for granted, while combining them with existing media repertoires, allowed the individuals in this study to make their digitalised worlds liveable.

The theoretical framework of domestication provided a conceptual tool for approaching the efforts in which older adults engaged with digital technologies as active engagements. By integrating the framework of domestication with the concept of media repertoire, this study illustrates the potential of combining these two approaches in understanding the role of domestication while ageing individuals face emerging technologies. The findings suggest that combining these two concepts can shed light on how domestication functions as individuals age: how the media repertoires that span an increasing variety of technologies can function as a resource when domesticating emerging technologies and in the efforts of negotiating the experienced demands of digital services (such as constant connectivity).

Ways to resort to media repertoires I identified in the research material included, firstly, the use of more traditional media such as phone calls, even when the participants could use digital technologies for the same purpose. Further, participants integrated the use of newer technologies (mobile phones, social network services) with the use of more traditional ones (paper, phone, USB sticks, and hard drives) to gain the perceived benefits of newer digital technologies without totally succumbing to the demands of constant connectivity. This integration did not concern just the physical devices, but also the ways of us-

ing online services, social network services in particular. The participants had found ways to engage in social interaction that were already part of their media repertoire, such as taking time with sharing content and sharing it in groups rather than on personal profiles.

The possibility to integrate emerging technologies with existing media repertoires – and further, to take advantage of the existing media repertoires in this process – requires both technological and discursive support. Digital services should, first, be designed to scale not just to newer interfaces but to ensure the technical integration to older ones. These options are of course already available, the printing of digital content being an example – the question is rather whether these options are developed further. Second, discursive issues concern how different ways of using digital technologies and interacting online are valued. As Gallistl and Wanka (2022) concluded, to consider independent use of the latest digital technologies as the only "right" way of using them may prevent many people – who use the Internet, for example, with the help of other people and are not necessarily continuously engaging with the newest technologies – from engaging in using the technologies at all. Instead, the varying forms of engagement should be seen as a strength rather than a burden in including older people in the digitalised society.

I conclude that ensuring the availability of alternatives to the use of digital technologies and services is important, not just because a large proportion of people in digitalised societies, especially in the oldest age groups (aged 65+), do not use digital technologies or services at all. The participants in this study used them to some extent, some very actively, and were interested in developing their skills. Even in these cases, I identified efforts to balance the use of emerging technologies with existing media repertoires and ways of taking advantage of existing media repertoires in incorporating new technologies into them. I believe that similar balancing is something that new generations will engage with as well. The availability of alternatives is thus crucial for everyone, especially as we grow older and emerging technologies confront and challenge our existing media repertoires.

I maintain that having the possibility of taking advantage of existing media repertoires when new technologies emerge will support the inclusion of ageing individuals in societies that require their members to deal with technological change. This suggestion entails the limitation that not all older adults have similar resources and vast media repertoires to begin with. As previous studies (Olsson et al., 2019; Olsson & Viscovi, 2020) indicate, available resources affect the extensiveness of an individual's media repertoire, as well as success in domesticating technologies. The participants of this study can to a large extent be considered as having plentiful resources that result in vast repertoires and good opportunities to domesticate emerging technologies. Further research is therefore needed to understand how older adults with more limited media repertoires balance the ambivalences of digitalisation.

Keeping this in mind, I conclude that services should be designed in ways that allow for combining their use with existing media repertoires, and for fitting

them in moral economies of everyday life – also the ones that have been being formed for decades. Future studies in different contexts that would explore media repertoires as a resource in domestication processes could provide insight into how these kinds of services could be implemented in practice.

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