



Special Issue: Caring Media Futures

No future for care without new digital media? Making time(s) for mediated informal care practices in later life

Daniel López-Gómez

Universitat Oberta de Catalunya, Spain

Roser Beneito-Montagut

Cardiff University, UK

Andrea García-Santesmases

Universitat Oberta de Catalunya, Spain

Abstract

There is a growing interest in using social media and digital platforms as allies to strengthen social support among the aged. Drawing on ethnographic interviews and observations of 21 people in their 80s, the article foregrounds the multiple and intersecting temporalities of informal mediated care practices in later life through an exploration of the wide range of infrastructures on which they rely, from social media platforms to housing and urban infrastructure. We identify four temporalities of mediated informal care to assert the need to problematize the future-oriented temporalities of new caring media. The article paves the way to consider infrastructures of informal care as making time in multiple forms, irrespective of their newness or oldness, or the futures that every new piece of technology and service may potentially bring to our present.

Keywords

ageing, future, ICT, informal care, media, time

Corresponding author:

Daniel López-Gómez, Universitat Oberta de Catalunya, Av. Carl Friedrich Gauss, 5, Castelldefels, Barcelona 08860, Spain.

Email: dlopezgo@uoc.edu

Renewed attention is being paid to informal care and social connectedness among older people. One of the reasons that this is happening is because of the health consequences of long-term loneliness, especially among older people, which is driving the creation of social infrastructures for intergenerational and peer-to-peer support, community involvement, and more decisive participation. Another reason is a result of the austerity policies that have placed care into 'ordinary spaces' (Power and Hall, 2018), not only into the homes of older people, but also into bars, parks, libraries, etc., where volunteers, relatives, neighbours and friends are seen as informal resources to be mobilized to provide social contact, support and informal care.

This process is increasingly coupled with the development and scaling-up of technological systems aimed at coordinating these informal 'resources', and monitoring and intervening 'at a distance' over a wide array of social support and social connectedness forms, for instance in telecare systems (Sánchez-Criado et al., 2014). This renewed attention to informal care and social connectedness is even clearer in the growing interest in social media and digital platforms as allies to strengthen social support among the aged. The growth in the number of publications about this possibility goes hand in hand with the emergence of new digital platforms designed for older people (Barbosa et al., 2019), or the uptake of social media apps such as Facebook or WhatsApp either to leverage social encounters among older people or to strengthen informal and intergenerational proximal support (Baldassar et al., 2016). In this case, social media seems to be meant to maintain, restore or even build up social connectedness, which is the *sine qua non* condition of social support and informal care, and a crucial factor in reducing the harmful consequences of long-term loneliness and social isolation.

A problematic aspect is the ageist 'grey tsunami' narrative that stimulates the development and adoption of these new caring media technologies, in which the growth of an ageing population living alone is pictured both as a future that threatens the sustainability of the health and social care system and an opportunity for economic growth. However, this narrative is articulated differently depending on the social profile of the target users. To reach those at higher risk of social isolation, caring media technologies and services are marketed as cost-efficient and 'easy' to scale up, community-based platforms that social care professionals can implement. For older people in a more advantaged position, these technologies are marketed as personalized solutions to help them continue to live on their own, thus preserving their independence as a cherished value, but without compromising safety, informal care and access to health care. Either way, both 'futures' collide in the promotion of these caring media technologies. In a context of austerity with regard to social care policies, the urge to prepare the welfare system for a future with more long-term care needs and more loneliness and social isolation stimulates the development of a market that offers innovative solutions.

This article pays critical attention to these future-oriented temporalities of caring media, as they are very much dominated by the idea of preparedness and portray ageing as a threat. As happens in other technoscientific areas that tackle societal challenges (such as climate change, energy transition, public health and security), the temporality of innovation in this case also seems to organize informal care according to an anticipatory logic (Adam, 2005). It is a future that is rendered uncertain and threatening, that drives current informal care arrangements to respond by adopting innovative technological

solutions (Adams et al., 2009). As Puig de la Bellacasa (2015) shows in her study of soil science in times of exhaustion, the future-oriented temporality of techno-science discounts both the future and the present. Drawing on her analysis (Puig de la Bellacasa, 2015: 700), we could say that the urge to act cancels the possibility of reflecting upon the ageing and care futures that these innovations are materializing or dematerializing. But the present is also discounted when the everyday practices, relations and multiple embodied temporalities embedded in the daily life of older people are rendered irrelevant with respect to the future threat. Thus, from this perspective, what seems to matter most is the enhancement of older people's social connectedness to prevent the 'disaster' of social isolation and loneliness from happening.

We do not mean to downplay this extremely challenging social problem and the urge to act upon it to reduce its harmful consequences in the present and in the future. Indeed, quite the contrary, this article draws on a project that is exploring social connectivity and informal care practices among older people, and digging into meaningful and effective ways of using digital technologies to support them. However, as a result of investigating how people aged over 75 use digital technology in their daily lives, we have realized that it is necessary to problematize the future-oriented temporality that binds together the need to innovate in the present with the constant anticipation of a threatening future. Drawing on an ethnography of mediated informal care practices among people over 75, mostly living alone, this article aims to reveal and, even more importantly, give importance to the multiple temporalities that current mediated informal care practices involve in the present.

In this article, despite digital technologies being the entry point to the field, we have put on hold the very idea that the future of informal care for the aged is mainly forged, purposely or not, through the development and implementation of new technologies and services. We take an ecological and infrastructural approach, inspired by Science and Technology Studies (STS) (Langstrup, 2013; López-Gómez, 2015; Star, 1999) and studies of polymedia in transnational family care (Baldassar et al., 2016; Madianou and Miller, 2012). These studies have demonstrated that the implementation of new technologies and services does not necessarily entail the development of new forms of care. It is through practices of tinkering, repair (Schwennesen, 2019) and bricolage (Gibson et al., 2019) with these technologies (Pols and Willems, 2011) that established care practices can be remediated, reconfigured or restored, or that new ones can emerge. This approach has important implications when it comes to critically analysing the future-oriented timescape of innovation (Jackson, 2016), as both nostalgic and futuristic carescapes (Bowlby, 2012) are contested: the latter by showing how multiple futures are challenged and reshaped throughout the innovation and implementation process; and the former by showing that ideas of care as pre-technological, embodied and proximal are indeed purified and romanticized versions of materially heterogeneous and complex practices (Baldassar et al., 2016; Mol et al., 2015).

Regardless of how old or new the media considered are, the ecological approach makes us sensitive to the materiality and temporality of mundane informal care practices. We look at the use of new digital platforms together with landline phones, forms of dwelling and interacting with public infrastructures, without considering the technologies involved as endowing intrinsic capacities or temporalities. Moreover, we look at

these materialities not only as ‘conduits or merely the backdrop to care’, ‘but rather what makes relationships, and therefore the potential for care, possible’ (Brownlie and Spandler, 2018: 267). This is a crucial point our article makes as the temporalities of informal care depend on ‘the productive relational and emotional possibilities of mundane materialities’ (Brownlie and Spandler, 2018: 267).

One of the main gaps in the literature on informal care is the lack of attention to mundane ICT practices, as if the gold standard would be necessarily based on physical co-presence and proximal care – something that is also contested in studies of geographies of care (Parrenas, 2005). The studies on digital kin work and ageing in transnational families (Ahlin, 2018; Baldassar et al., 2020; Sinanan and Hjorth, 2018), show how caring involves setting up polymedia infrastructures where different kinds of mediated co-presence are made possible, and how these intersect with normativities around the provision of care as part of ‘doing family’ (Madianou and Miller, 2012). In the majority of these studies on digital kinship, there is a lack of attention to temporality (Bowlby, 2012). However, temporality is key to understanding the daily geographies of care, both from the point of view of the care-givers as well as the care-recipients (Twigg, 2008; Wiles, 2003). It is also crucial in understanding how relations that may render care possible are forged. How continuous, responsive, and prompt the informal care is, who is doing the looking after and responding, and who is asking for help, how long and frequent the encounters, meet-ups, gatherings and waiting are . . . all these configure particular rhythms of care, which materialize the care relationships in which older people are involved and which they count on in order to get on with their daily living, sometimes giving care and sometimes receiving it (Beneito-Montagut and Bequeria, forthcoming).

Thus, we will show how the configuration of informal care really depends on the temporality that specific daily-life infrastructures contribute to producing. After describing the methodology, the article explores a set of temporalities enacted by the infrastructures that sustain the support given to older participants and informal care relationships. In the first empirical section, this article mostly reports upon three people and their past and present life stories to illustrate five temporalities of mediated informal care. Based on the analysis of these temporalities, in the final section of the article we aim to problematize the future-oriented temporality of caring media for older people.

Methodology

This article draws on an ethnographic study of the media ecologies of older people living independently and their everyday life infrastructures. For this particular reason, the main recruitment criteria consisted of older people who own a smartphone or any other digital device to stay connected. The sampling procedure also considered the kind of accommodation older people are in, given its key role in people’s social connectedness. Accordingly, the sample was composed of 21 older people whose average age was 81. All of them were living in Barcelona; 5 were living in their own home, 8 in sheltered housing for older people and 8 in care homes; 15 were living alone and 6 with a family member (3 with their partner, 1 with their son, and 2 sisters living together); 12 out of 21 were women and could carry on with their daily-life activities independently. Their



Figure 1. An example of visual clock.

socioeconomic and education background was diverse, although the people living in sheltered housing all accessed this accommodation through social benefits.

The ethnography comprised one of the co-authors taking fieldnotes and engaging with participants in life-story interviews in the form of a personal visual register and the drawing of a visual clock (Figure 1). In the fieldnotes, particular attention was paid to the description of their homes. The life-story interview allowed the participants' social relations to be explored. Through the visual clock and by pinning the location, technology and time of their social interactions, the participants described the activities they are engaged in on a daily basis and with whom they talk and relate and the frequency of the interactions.

The focus was not on particular digital technologies, but whatever was incorporated into their daily life that eventually sustains social connectedness and informal care. Just at the end of the first interview, the co-author handed the interviewees a camera and notebook and invited them to take photos and write about their daily-life activities and social interactions over a period of a week. The participants could choose the type of register most suitable for them. For instance, one of them decided to report over WhatsApp, sending audio files to the co-author every evening. The co-author also engaged with most of them online, usually via WhatsApp and Facebook, and had a second meeting with each of them to conduct an elicitation interview that drew on the diary, photos taken and the clock activity. In many ways, this elicitation strategy allowed timings, routines and daily rhythms to be captured as they are entwined with place, technologies and people.

Our approach to informal care was rather loose, trying to capture its twofold aspects: *caring for* – the instrumental work that somebody does when he or she is literally attending to another person; and *caring about* – the emotional relation and concern about

someone else (Tronto, 1993; Ungerson, 1990). As we will show, both are intertwined and entail material doings that are usually shaped by gendered conceptions of care and forms of kin. We will show how informal care can also be done in different ways: through the way in which physical care is provided (i.e. touching, talking, seeing), as well as by spending time together and being present in a particular way – for instance through ICTs (Beneito-Montagut and Begueria, forthcoming).

Life-story vignettes

We use vignettes as a way of presenting the life stories. A vignette is a short story about characters in particular circumstances and contexts; here they are crafted as a mode of presenting the material on the basis of which the temporalities are analysed. In what follows we present three life stories that were selected as an attempt to capture the temporalities and infrastructures that came about in later-life transitions. The first one is about Avelino, a recently widowed man who is adapting to living alone in his family home. He was pushed to adopt new technologies (a smartphone and a tablet) to ease the struggles of his vital transition. The second life story is about Lana, a divorced woman who needed to move to sheltered housing but is quite accustomed to living alone and independently. She uses technology constantly and keeps in touch with her family and friends through it. The third story is about Fatima, an immigrant woman who had to move with her husband to sheltered housing after being evicted. Her technological uses, mainly to hold the transnational family together, are strongly supported by her youngest daughter, Musra, who is often around looking after them.

Avelino: every day is the same

Avelino is a 79-year-old retired driving instructor and occasional taxi driver. He lives alone in the house he has always lived in, which is located in a neighbourhood developed in the 1960s by migrants like him who settled down in self-built houses and ad hoc buildings.

Over a year ago, his wife passed away due to ALS. During her illness, he learned to take care of all the domestic duties and was in charge of maintaining their home: ‘I learned to cook during my wife’s illness.[. . .] she wrote a list of the ingredients I had to buy and then taught me how to cook it.’ His daily routines were organized around his wife’s care and domestic chores. Now he feels uneasy at home and therefore prefers being outdoors. Every morning and afternoon, he goes out for long walks around the neighbourhood (Figure 2) and engages in small talk with neighbours and acquaintances. He feels so attached to the neighbourhood that he refuses to move closer to one of his three children who lives in a nearby city. He always tells him that ‘there are no older people there with whom I could talk’. He also complains that visits from their two sons are scarce; they occasionally have dinner together at a restaurant on weekends. He has a closer relationship with his daughter. They have breakfast together in the local bar once per week.

When his wife became housebound, his niece applied for a Barcelona City Council digital platform service, as she thought it could be useful for keeping her entertained and



Figure 2. Most of the photos Avelino chose to take show the relevance of his time walking through the street, and specifically in the *parque dels iaïos* (elders' park), as he calls it.

socially connected. Avelino inherited this service too. Currently, he is happy with the tablet provided because he gets more entertainment than on TV. He prefers watching animal videos and funny stuff on YouTube. What he likes the most is that ‘random things come out, I look at them, touch and things come out’. The tablet counteracts the boredom of the daily routine: ‘Thankfully, the tablet and I are inseparable, so the days are shorter even if they have the same hours.’ The time watching videos amuses him and time passes by swiftly when he is at home alone. He also incorporated a smartphone into his daily life after his wife died. With his brother-in-law and a friend, he created a WhatsApp group where they exchange memes and videos, mostly racy ones or about country life, and they text about football. However, Avelino is not very interested in football and only follows sports programmes on TV to be kept up-to-date and keep up these regular conversations with friends.

His widowhood also led to changes in the relationships with his family. He filled in for his wife in the care for their relatives. His sister-in-law lives in a nursing home; her mobility is limited and she uses a wheelchair. Avelino regularly accompanies her to her GP and, after the appointment, they go to eat together at some restaurant in the area. He also regularly talks on the phone with another sister-in-law and they see each other once a month. These form another inheritance from his wife. Keeping in touch with relatives was her role within the family, which Avelino used to avoid: ‘when my wife was here, I went outdoors. My sister-in-law reminds me: “how little you liked to talk on the phone!”’

Lana: struggling to find the right time

Lana is a divorced 76-year-old woman who lives alone. She is very proud of her former professional background as a radio broadcaster, but greatly bewails the effects of

many incidents of gender discrimination in both her professional and personal life that placed her in a fragile financial situation. She ended up living in social sheltered housing accommodation for older people. She is very engaged with technology and active in any social activity organized within the communal premises of the housing accommodation. In contrast, she hardly goes out into the street due to mobility problems. Lana owns a computer and a smartphone that is never switched off. She connects to the internet every day and uses Twitter, Instagram, Facebook, Skype and email. In the afternoons, she cooks and watches TV while interacting through voice messages on WhatsApp. The TV and radio are always on. The radio is on even when she wakes up in the middle of the night and cannot get back to sleep. She pays close attention to the independence process in Catalonia on TV and Twitter. She is attentive to any event and reaction about it and she even tries to engage her neighbours in a WhatsApp group.

Lana has four children. She talks with them frequently by mobile phone to share everyday things. However, referring to one of her daughters, she says, 'She calls me when she feels like it, when she is bored.' This extends to her other children. Lana perceives inequalities in the rhythms and times of the phone calls. She feels that her children use their lack of time due to busy lives as an excuse and she feels relegated to moments of downtime.

My son, for example, is travelling to London, and then in the airport . . . on the ride between Barcelona and the airport, then to not get bored he calls me: 'Hello, how are you, any news?' 'Well, no news son, but it turns out . . . ' 'No, but are you okay?' 'Yes, I'm fine.' I ask: 'Where are you? in a taxi, right?' 'Yes . . . yes, I'm going to the airport.' 'Ah ok . . . ok . . . well . . . Well, nothing then, kisses mua . . . mua, bye.'

This adds to her frustration regarding another point of contention with her son. She learned to use Skype when he was living away: 'when they were living abroad, for nearly four years, every single week, we saw each other through Skype. I have seen all their lives through Skype, the girls' lives'; this is in fact quite exemplary of the ideal distance in transnational families (Madianou and Miller, 2012). Quite painfully for her, as soon as they moved back to Barcelona, this weekly routine stopped and they did not want to use Skype any more. And she repeats, 'then, I don't insist, I don't bother them any more'. What is worse for her, the Skype conversations were not replaced by regular visits but by quick monitoring via a minimum and less disruptive interaction between them – an emoji thumbs up. Similar let-downs take place when she writes long and epistolary-style emails to her children and they never reply, or when she tries to engage her children in conversations over WhatsApp about their daily lives, and hardly gets more than a short text or emoticon as a reply.

In contrast, Lana sustains several personal relationships that are experienced as rewarding. She feels that digital media create intimacy and nurture their relationship. For instance, she talks by phone three times per week – always on weekdays – with a close friend. Both of them live in Barcelona, but they do not see each other face-to-face more than once or twice a year. Similarly, she is constantly in touch with her

sister and maintains a quotidian ritual consisting in sending emojis to say good morning every day.

Fatima and Musra: being always there to hold the family together

Fatima is a 75-year-old woman of Moroccan origin who lives in Barcelona with her husband in the same kind of housing accommodation for older people as Lana. She has 7 children and 18 grandchildren but none of them lives with the couple. Musra is her younger daughter and is about to finish a law degree. Fatima has been in Spain for almost three decades and three of her children live nearby, while four of them have moved to other European countries. Their fluency in Spanish is low. As Fatima says, she works seven days a week preparing the meals, cleaning and attending her children's video-calls and has 'no time for social activities'.

The couple experienced financial difficulties after her husband retired. Sadly, they were evicted from their family home and moved to the current sheltered housing for older people. The move was very stressful and traumatic, particularly for Fatima, who complains that they cannot host family gatherings as they used to do. The new apartment is designed for singles or couples, the managers do not allow their children to stay overnight and the long and crowded dinners during Ramadan seem to be disturbing for some neighbours. However, thanks to Musra, they managed to overcome these barriers and come together with the rest of the family. Almost on a daily basis, Musra joins her parents for dinner and she receives video-calls from her siblings on her smartphone. Then, Fatima, and sometimes her husband, sit down around Musra's phone and spend hours talking about everyday life with their children and grandchildren (Figure 3). As Fatima neither calls nor hangs up on her children, the onus is on them to make the calls and decide when to end them. She says, 'my only work is this [. . .] talk, son!'. It is just a way to spend time together as they are there sitting around the same table. The siblings are usually keen to talk with their parents.

When her mum held these conversations via Musra's smartphone, she could not use it for hours. Recently, she managed to convince one of her brothers to buy a smartphone for their mother.

The smartphone for my mother came up because I couldn't take all my siblings' calls. Because I'm not always at home and I also use my smartphone for my stuff: to study, to talk . . . to talk to classmates, for whatever, and of course, when my brothers called, the phone was busy with my parents for two, three hours.

Despite this, her siblings have continued to contact her as an in-between for them and their parents. Her mother asks Musra to check on her brothers too when she has not heard from them for a while. And Musra feels pressured to do it quickly, otherwise Fatima lies awake worrying. According to Musra, buying her a smartphone was a wise decision. Recently, Fatima got lost in the neighbourhood and asked somebody in the street to use her smartphone to call Musra, so she could locate and pick her up.



Figure 3. Photo of a mediated *family gathering* taken by Musra and Fatima.

Temporalities of mediated informal care

As we have seen in these three vignettes, informal care not only requires specific forms of emotional work but also the arranging of infrastructures to maintain the relationships between older people and their relatives, as well as their friends and acquaintances. These three cases confirm most of the findings in the literature on transnational families' mediated care: older people and their acquaintances care about each other by mixing digital and non-digital forms of communication and in these polymedia environments different forms of co-presence are played out (e.g. Baldassar et al., 2016; Madianou and Miller, 2012). Other mundane materialities of care play a crucial role as well, such as objects, buildings and spaces (Brownlie and Spandler, 2018).

However, our intention is not to reveal the material heterogeneity of informal care practices but to single out the temporalities that these different forms of care entail and the ways in which they are mixed together in the conduct of informal care. Consequently, in what follows, we are going to pay closer attention to how various temporalities intersect in the conduct of informal care, not only to understand how relations that render care possible are currently forged but also to critically discuss the future for informal care that the adoption of new media technologies seems to cast and bring about for older people. Bearing this in mind, and drawing on the vignettes, first we aim to analyse the temporalities of four different practices involved in the conduct of informal care by older people and their relatives and acquaintances: carrying out housework, checking in on others and staying available, making time for intimacy and digital entertaining.

The never-ending and routine housework

Avelino formerly maintained the gendered division of domestic work, but when his wife was ill and when she passed away he took over ‘her housework’. Even though he bragged about the gains regarding his own care in front of his interviewer, he also confessed that he, as a man, feels like a petunia in an onion patch and jokingly expressed his desire to meet a woman to get rid of this work. This tedious work is very much associated with the house and all its appliances. It involved learning, for instance, how the iron works, and how to use the telephone just like his wife used to do to have a chat with her sister. Avelino incorporated all these technologies to hold his own and take care of his family. This entailed embodying a particular temporality of care that causes him discomfort and challenges his masculine identity as an older person (Milligan and Morbey, 2016). He repeats that ‘it is the same thing day in day out’, ‘the same story every morning’.

In contrast to Avelino, we can see in the case of Fatima, how her entire daily life is organized around these routines and endless work that embody her motherhood as still, in later life, she is taking care of her family and holding it together. The same – if not more intense – quotidian and repetitive flow as Avelino is experienced as fulfilling by Fatima, although she recognizes ‘not having time for leisure or friendships’. For her, the home is the safe space and it is entangled with her subjectivity. As feminist scholars have shown, the ‘time to care’ is gendered and decoupled from work and leisure time (Balbo and Nowotny, 1986), which is the reason why it is experienced mostly by women as never-ending, routine and boring, and without public acknowledgement (Berheide, 1984).

The always-on temporality of checking and staying available

The case of Fatima and Musra reveals a temporality of care that is tightly connected to the use of ICTs. Being responsible for others and available to others as a gendered form of ‘passive care’ implies being always connected, checking and being checked on. As we have seen, ICTs enable children and parents to check on each other (by making regular and short phone calls or sending WhatsApp messages) and to intervene if necessary. This involves an ‘ambient co-presence’ in which a ‘lateral alertness’ becomes possible (Madianou, 2016). It is a form of control and surveillance, or ‘careful surveillance’ (Alinejad, 2019), deeply embedded in those practices of care that enact digital kinship.

What ICT practices reveal is the temporality of the micromanaging involved, which, following the work of Licoppe (2010), we refer to as the temporality of notifications and alerts. As we can see in the case of Lana, this temporality configures the daily-life management of digital notifications between parents and children (Licoppe, 2010). Through digital notifications, the person who cares demonstrates that she/he is keeping an eye all the time and the recipient of care communicates that everything is okay without getting engaged in a longer social interaction. Because the notifications are instantaneous and automatic the imperative to reply and perform is softened, in contrast to a phone call or visit. Consequently, the imperative of staying-always-switched-on is strengthened (Licoppe, 2010), which is especially strong for their children. Not doing so compromises

the connected co-presence (Licoppe, 2004), which enables the carers to remain alert while doing other things.

If notifications are not read, routinized messages are not sent or a call is made at an unusual time, these might become alerts. There is then an urge to reply and act. We have seen this in the case of Fatima. Musra's push to get her mum a smartphone is related to the peace of mind provided by knowing where Fatima is (as she got lost once on the street) and that she will be able to call Musra for help. The smartphone becomes not only a notification device to check in constantly but something closer to an alarm, which turns Musra into something like a call centre operator, either running off to help her mother or, when she is busy at work or at university, sending over her father or brother to help her mother out as soon as possible.

Making time for intimacy

One of the central elements of mediated intimate relationships is sharing everydayness. The encounter is not meant to deal with a problem or issue, nor reach an agreement nor find a solution. It is about spending time with the other person, usually sharing each other's everydayness and concerns. As we have seen, physical co-presence is the preferred format. Avelino feels dissatisfied when his children send him photos of his granddaughters instead of coming to see him more regularly. However, being 'communicatively present with mobile devices may even enhance closeness at a distance' (Wajcman, 2014: 149). This is exactly what Lana experienced when she spoke to her son's family over Skype when they were living abroad, but she no longer has this form of contact now that they are living nearby. She has regular long phone conversations with a friend and her sister. During these encounters time is devoted to conversation and interaction, usually scheduled for specific times of the day, while she sits comfortably in the armchair at home. This is not what happens in the case of her children: the calls are made when they do not have time, at any time and from anywhere (such as from the taxi on the way to the airport).

The contrasting experience of Fatima and Musra is particularly interesting in this regard. They manage to recreate the family encounter as if they were still living in their former 'family house'. Yet, the communication was a 'second-rate semblance of intimate family life' (Parrenas, 2005: 334). Their family encounters always happen in the evening when everyone is at home with their own families, so they can spend time together and see each other. Mobile phones are placed in a particular place so that the whole family can listen and interact. This creates a feeling of shared everydayness, which includes partaking in the domestic spaces. Children might be having dinner or doing other things and the husband moves on to do something else after the first 5 minutes. However, this connected everydayness is maintained by Fatima, whose attention is solely focused on the encounter, and Musra, who arranges the ICT infrastructure and organizes her siblings in the background.

Intimacy is not sustained necessarily through a face-to-face encounter, it can also be media-articulated and even figurative, but it is crucial to arrange these encounters in space and time so the temporality of the interaction unfolds. Interestingly, the temporality of these encounters really depends on the interaction, even though they are usually

scheduled. This can only happen if the participants are engaged in the situation. But arranging these encounters is demanding and requires a lot of material and emotional work. It entails a constant tinkering to figure out the right fit between communication technologies, actors, times and spaces, in such a way that encounters can materialize the intimacy of kinship (Ahlin, 2018) or friendship. This is usually gendered work. Women are expected to take on the work that sustaining intimate relationships entails, especially within the family.

The transitory and extended present of digital entertainment

Providing entertainment is clearly an aspect of informal care, and ICT plays an important role. The case of Avelino is probably the most illustrative. His closest friends encouraged him to get a smartphone and a tablet, and WhatsApp and YouTube turned out to be useful for coping with loneliness and boredom. In contrast to what the commissioner of the service intended, Avelino does not use the tablet to get in touch with neighbours, but to let his mind be carried away by the YouTube algorithms. The smartphone has become important for sharing racy memes, jokes, YouTube videos, memories from his hometown and texting about football on WhatsApp. In a way, social and mobile media seem to break into the tedious rhythms of domestic life, in the same way as the social encounters and events he looks forward to in the street. Lana does not experience the street and neighbourhood in the same way as Avelino, but social and mobile media are also very important as sources of entertainment. She spends quite a lot of time after lunch and dinner either on the mobile phone or on the computer, tracking what her children are up to on Facebook, what is happening with the Catalan independence movement (*el procés*) in real time on Twitter, or participating very actively in numerous WhatsApp groups, either sharing funny memes or getting into political arguments.

In these cases, engaging in social media platforms is a form of caring through entertainment. Indeed, it is the temporality of their engagement with these digital platforms that makes them suitable for such a purpose. Coleman's (2017) analysis of the temporality and affective infrastructure of Twitter and Netflix gives us further clues to understanding this. Both the 'present always in transition' of Twitter and Facebook and the 'extended present' of YouTube configure their present time as 'active', on-going and open-ended, and therefore contribute to 'animating the now' (Coleman, 2017: 14). Thus, this real-timeness (Weltevrede et al., 2014) contributes to helping Avelino and Lana get away from the worries and feelings of loneliness that usually strike at certain times of the day, when they feel more entrapped by their own thoughts. In fact, that is the reason why friends and family encourage Avelino to adopt and use these technologies.

Accommodating the multiple temporalities of informal care

Informal mediated care practices both involve polymedia and are embedded in infrastructures such as the home and the neighbourhood (Baldassar et al., 2016; Brownlie and Spandler, 2018). Moreover, as we have shown, these practices involve different temporalities. Indeed, the normativity of mediated informal care has very much to do with acknowledging their specificity, giving them their time and constantly attuning the

practices to those who are interacting, their circumstances and the context on a daily basis. Thus, as a result of the infrastructural and ecological nature of mediated informal care practices, the present is populated by different temporalities in the process of accommodating each other.

Activities such as shopping, cooking and cleaning are necessary to sustain one's own life, but are also important tasks for taking care of others. Consequently, in any case, they are recurrently and continuously repeated and, as we have seen, undertaking them is assumed as a gendered responsibility with low social value and scant public acknowledgement, despite being crucial for self-reliance and independent living. For this reason, when it comes to taking over these tasks or providing support, informal care is organized according to this repetitive and cyclical temporality. Interestingly, the temporality of the routine is articulated in conjunction with the other temporalities. The routine usually makes time for the other temporalities, sorting out when is the right time for entertainment, intimacy or a check-in.

As we observed in the life stories, intimacy demands time and space and, therefore, some particular infrastructures: visits, phone calls or videoconferences, even the exchange of letters. The work that needs to be done to make these intimate encounters happen is routinized and by doing it kinship and friendship practices remain embedded in the daily lives of those involved. But, unlike domestic work, the temporality of these intimate encounters is hard to pre-set, and is not something that can be fully routinized, or even automated using a device (as in the instance of notification management). The encounter, once it is set and takes place, unfolds its own temporality, which thickens the present of the relationship between those interacting, and this is the reason why it is a matter of negotiation between them.

The temporalities of the intimate encounters and the checking encounters, via instant messaging notification devices, are in sharp contrast. The latter do not demand that the interactors be engaged nor do they let the time of the interaction simply unfold. Rather than setting up a time-space for having an encounter, the automatic and instantaneous notification enables a lateral and continuous surveillance that is compatible with the undertaking of other activities. This enables continuous mutual checks at a distance, letting each other know that someone is 'there' in case of need and providing peace of mind. For this reason, this ambient and continuous co-presence (Madianou, 2016) is usually layered over domestic routines, so that informal carers can look after their parents, neighbours and friends. Not only do these mutual checks become regular throughout the day, but they are also interpreted based on the person's daily routines. Thus, the absence of notifications, a message sent at seemingly odd hours or just an odd phone call may trigger the alarm for the informal carer.

Interestingly, smartphones and tablets are involved in a form of informal care which depends on a temporality similar to that of the intimate encounters. When social media platforms are adopted and their use encouraged by family members, friends and neighbours, it is also because sharing entertaining content is a way to care for each other's thoughts and feelings, and engaging with the real-timeness of social media helps to do away with sad memories and thoughts about the future, as well as the boredom of domestic routines. As with intimate encounters, the latter happens because online platforms generate an active and fully attentive engagement by the user. Timewise, these

engagements are hard to pre-set and control. On the one hand, the algorithmic stream of YouTube videos creates an extended present and, on the other hand, the eventful flow of WhatsApp messages creates a temporary or transitory present.

Conclusions

As we have seen, current mediated informal care practices are populated by multiple temporalities that need to be accommodated. This sharply contrasts with the timescape that the development and adoption of new social media bring into informal care for older people. When mediated informal care practices are approached based on the novelty of the media, the focus is inevitably put on the potentially caring futures they open up. Informal care practices become something that needs to be constantly improved in order to respond effectively to specific anticipated futures, either to pursue them or prevent them from happening. Moreover, they can also frame the betterment of informal care in terms of technological upgrade: the shift from old to new infrastructures configures those care practices that are left behind as unsustainable and inefficient. This has an important implication: this productive and future-oriented temporality not only hides the tensions, negotiations and reconfigurations entailed in the implementation of new technologies but also disregards the fact that mediated informal care practices deal with the multiple temporalities of the present in order to try to accommodate them.

Certainly, STS and media studies have problematized the very idea of social improvement through technological progress. New technologies do not impact within a vacuum – their functioning depends on how they are entangled with practices and old technologies that were already in place. Therefore, the improvement does not relate solely to how technologies are designed. It is also necessary to attend to the complex translation and mediation processes, together with the multiple temporalities of these processes. This article is clearly a contribution to this tradition because our analysis showed that it is within the practical articulation that innovation happens, either to tame a device and make it work in a specific context or to open up a new course of action that was not even planned by the developers themselves (Pols and Willems, 2011).

When we move our critical imagination away from their newness, we can see the consequences for informal care practices of the future-oriented, anthropocentric, linear and unidirectional temporality of technological innovation. Care can easily become a form of control (Latimer, 2000; Puig de la Bellacasa, 2015). As we have shown, sustaining life necessarily involves considering and articulating the diversity of temporalities (Jackson, 2016). The trap of focusing on new media, even to refute promising discourses, is that by focusing on the future we ‘discount’ the present. For this reason, it is important to put this future-oriented temporality on hold, as well as the promises and threats it brings, in order to thicken the present of mediated informal care. Even more, if we think through the multiple temporalities that mediated informal care practices try to accommodate, we might also consider futures that are usually discarded within the frame of technological innovation: for instance, informal care practices such as the daily after-lunch phone calls over the landline, which are sustained by ‘old’ infrastructures, usually lack the value of newness to the point of being seen as irrelevant, or even on the verge of becoming obsolete and replaced, though they are deeply embedded in the daily routines.

To conclude, this article has explored the multiple temporalities of mediated informal care and problematized the future-oriented timescape of technological innovation in social care. It has also paved the way to consider infrastructures of informal care as making time in multiple forms, irrespective of their newness or oldness, or the futures that every new piece of technology and service may potentially bring to our present.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the project ‘Being Connected at Home – Making Use of Digital Devices in Later Life’ (PCIN-2017-080) funded by the Spanish Ministry of Economy, Industry and Competitiveness under the Joint Programme Initiative “More Years Better Lives” for “Ageing and Place in a digitising world” (2017).

References

- Adam B (2005) *Timescapes of Modernity*. London: Routledge.
- Adams V, Murph M and Clarke AE (2009) Anticipation: Technoscience, life, affect, temporality. *Subjectivity* 28: 246–265.
- Ahlin T (2018) Only near is dear? Doing elderly care with everyday ICTs in Indian transnational families. *Medical Anthropology Quarterly* 32(1): 85–102.
- Alinejad D (2019) Careful co-presence: The transnational mediation of emotional intimacy. *Social Media + Society* 5: 1–11.
- Balbo L and Nowotny H (1986) *Time to Care in Tomorrow's Welfare Systems: The Nordic Experience and the Italian Case*. Vienna: European Centre for Social Welfare Training and Research.
- Baldassar L, Nedelcu M, Merla L and Wilding R (2016) ICT-based co-presence in transnational families and communities: Challenging the premise of face-to-face proximity in sustaining relationships. *Global Networks* 16: 133–144.
- Baldassar L, Wilding R and Worrell S (2020) Elderly migrants, digital kinning and digital home making across time and distance. In: Pasveer B, Synnes O and Moser I (eds) *Ways of Home Making in Care for Later Life*. Singapore: Springer, pp. 41–63.
- Barbosa Neves B and Vetere F (2019) *Ageing and Digital Technology: Designing and Evaluating Emerging Technologies for Older Adults*. Singapore: Springer.
- Beneito-Montagut R and Begueria A (forthcoming) ‘Send me a WhatsApp when you arrive home’: Mediated practices of caring. In: Peine A, Marshall B, Martin W and Neven L (eds) *Socio-Gerontechnology: Interdisciplinary Critical Studies of Age and Rechnology*. Abingdon: Routledge.
- Berheide CW (1984) Women’s work in the home: Seems like old times. *Marriage & Family Review* 7(3–4): 37–55.
- Bowlby S (2012) Recognising the time–space dimensions of care: Caringscapes and carescapes. *Environment and Planning A* 44: 2101–2118.
- Brownlie J and Spandler H (2018) Materialities of mundane care and the art of holding one’s own. *Sociology of Health & Illness* 40: 256–269.
- Coleman R (2017) Theorizing the present: Digital media, pre-emergence and infra-structures of feeling. *Cultural Studies* 32(4): 600–622.
- Gibson G, Dickinson C, Brittain K and Robinson L (2019) Personalisation, customisation and bricolage: How people with dementia and their families make assistive technology work for them. *Ageing and Society* 39: 2502–2519.

- Jackson SJ (2016) Speed, time, infrastructure: Temporalities of breakdown, maintenance, and repair. In: Wajcman J and Dodd N (eds) *The Sociology of Speed*. Oxford: Oxford University Press, pp. 169–186.
- Langstrup H (2013) Chronic care infrastructures and the home. *Sociology of Health & Illness* 35: 1008–1022.
- Latimer J (2000) *The Conduct of Care*. Oxford: Wiley-Blackwell.
- Licoppe C (2004) ‘Connected’ presence: The emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space* 22: 135–156.
- Licoppe C (2010) The ‘crisis of the summons’: A transformation in the pragmatics of ‘notifications’, from phone rings to instant messaging. *The Information Society* 26: 288–302.
- López-Gómez D (2015) Little arrangements that matter: Rethinking autonomy-enabling innovations for later life. *Technological Forecasting and Social Change* 93: 91–101.
- Madianou M (2016) Ambient co-presence: Transnational family practices in polymedia environments. *Global Networks* 16: 183–201.
- Madianou M and Miller D (2012) *Migration and New Media: Transnational Families and Polymedia*. London: Routledge.
- Milligan C and Morbey H (2016) Care, coping and identity: Older men’s experiences of spousal care-giving. *Journal of Aging Studies* 38: 105–114.
- Mol A, Moser I and Pols J (eds) (2015) *Care in Practice: On Tinkering in Clinics, Homes and Farms*. Bielefeld: Transcript Verlag.
- Parrenas RS (2005) Long distance intimacy: Class, gender and intergenerational relations between mothers and children in Filipino transnational families. *Global Networks* 5(4): 317–336.
- Pols J and Willems D (2011) Innovation and evaluation: Taming and unleashing telecare technology. *Sociology of Health & Illness* 33: 484–498.
- Power A and Hall E (2018) Placing care in times of austerity. *Social & Cultural Geography* 19: 303–313.
- Puig de la Bellacasa M (2015) Making time for soil: Technoscientific futurity and the pace of care. *Social Studies of Science* 45: 691–716.
- Sánchez-Criado T, López D, Roberts C and Domènech M (2014) Installing telecare, installing users: Felicity conditions for the instauration of usership. *Science Technology and Human Values* 39: 694–719.
- Schwennesen N (2019) Algorithmic assemblages of care: Imaginaries, epistemologies and repair work. *Sociology of Health & Illness* 41: 176–192.
- Sinanan J and Hjorth L (2018) Careful families and care as ‘kinwork’: An intergenerational study of families and digital media use in Melbourne, Australia. In: Barbosa Neves B and Casimiro C (eds) *Connecting Families? Information and Communication Technologies, Generations, and the Life Course*. Bristol: Bristol University Press, pp. 181–200.
- Star SL (1999) The ethnography of infrastructure. *American Behavioral Scientist* 43: 377–391.
- Tronto JC (1993) *Moral Boundaries: A Political Argument for an Ethic of Care*. Hove: Psychology Press.
- Twigg J (2008) *Clashing Temporalities: Time, Home, and the Bodywork of Care*. In: Martin-Matthews A and Phillips JE (eds) *Aging and Caring at the Intersection of Work and Home Life: Blurring the Boundaries*. Hove: Psychology Press, pp. 229–245.
- Ungerson C (1990) *Gender and Caring: Work and Welfare in Britain and Scandinavia*. Birmingham: Harvester Wheatsheaf.
- Wajcman J (2014) *Pressed for Time: The Acceleration of Life in Digital Capitalism*. Chicago: University of Chicago Press.

- Weltevrede E, Helmond A and Gerlitz C (2014) The politics of real-time: A device perspective on social media platforms and search engines. *Theory, Culture & Society* 31: 125–150.
- Wiles J (2003) Daily geographies of caregivers: Mobility, routine, scale. *Social Science & Medicine* 57(7): 1307–1325.

Author biographies

Daniel López-Gómez is Associate Professor in Social Psychology in the Open University of Catalonia. His work is placed at the intersection of Science and Technology Studies, Age Studies and Care Studies. His focus is mainly on the study of infrastructures and practices of care in later life, ranging from ICT-based systems such as telecare to community-led infrastructures such as senior cohousing or mutual-care initiatives. Theoretically, his work explores the biopolitics of ageing and draws on actor-network theory, post-structuralism and feminist techno-science. More recently, he has become interested in self-tracking technologies, participatory sensing projects as well as maintenance and repair practices as infrastructural care. He is currently a board member of the Catalan Society for Geriatrics and Gerontology and senior researcher of the group CareNet at the Internet Interdisciplinary Institute (IN3/UOC).

Roser Beneito-Montagut is Senior Lecturer in Sociology in the School of Social Sciences, Cardiff University (UK). She also is a researcher in the group CareNet at the Internet Interdisciplinary Institute (IN3/UOC, Spain). Her research interests include the study of digital technologies, particularly in relation to the topics of social connectedness, later life and care infrastructures in the networked society. She has written about the socio-cultural and material dimensions of ‘being’ and interacting online; emotions and affects; methodological innovations in relation to the availability of digital data; and about later life and about later life and ageing.

Andrea García-Santesmases is a postdoc researcher in the group CareNet at the Internet Interdisciplinary Institute (IN3/UOC). She is a Social and Cultural Anthropologist and Sociologist working at the intersection of gender studies, age studies and disability studies. Her PhD was an ethnography of the ‘cripple-queer-feminist’ alliances in the disability rights movement in Spain and as a postdoc she has studied how older people build social connectedness through ICT. She has been visiting scholar at the Disability and Human Rights Observatory (ODDH) of the University of Lisbon (ISCSP) and at the Núcleo de Estudos de Gênero- PAGU of the Universidade Estadual de Campinas (São Paulo, Brasil).