

## *Chapter Six*

# **Everyday Time Travel**

## *Temporal Mobility and Multitemporality with Smartphones*

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How have you last checked the time? Chances are that you did not need a specialized technology, such as a watch or a clock, because the device you are using to read this text on might display the time on one corner of the screen or another. These days it is almost impossible to not know the time. Most, if not all, digital technologies, from fitness trackers to smart TVs, have an incorporated time feature that shows the satellite-determined exact time. This chapter argues that while situating everyday life in relation to a globally precise time, digital technologies can also be creatively employed to unsettle time—to jump from present to past and future, or to juxtapose moments to create unique temporal experiences. The accounts discussed here focus on the temporal experiences of people in full-time employment working in the fast-paced sector of technology. In these contexts, the tool that is specifically employed to navigate and manipulate time is the smartphone.

Both the multiplicity of affordances, and the physical characteristics of the smartphone, make this the preferred tool for acting upon time. First, the smartphone affords a multifaceted temporal orientation through storing and giving access to content that allows the user to connect to various points in time, for example in actions of anticipation and reminiscing. Digital calendars provide a visual platform for planning, coordinating, and imagining the near future. Social media and news notifications create the sense of a shared present by instantly connecting people going through their daily activities to global media events. Expressive and functional pictures and screenshots on mobile devices provide new opportunities for action on multiple timescales, from long-term archival to use in future actions. This situation where a single tool provides access to multiple points in time is unprecedented, and it implies transformation of social relations and notions of time. Second, the physical characteristics of the smartphone, such as the fact that it can easily

be carried around at all times, makes it into a tool to use in any situation. The smartphone combines both aspects of a tool that is ‘ready-to-hand’ and ‘present-at-hand’ in Heidegger’s phenomenology (Dourish, 2001). Ready-to-hand means that we act through the tool not paying attention to the fact that it mediates our action, for example when we just pull it out to check an email. Present-at-hand means that we act upon the tool to achieve the desired effect, for example when we lift our arm up, holding the phone in search for a suitable wireless signal. By combining both aspects in our use of the smartphone we become aware of its capacities and limitations and we are able to employ it creatively in a variety of situations; for example taking a photo of a page in a book to create an extra copy of a piece of information that is needed in the moment, or anticipated to be needed in the future.

New technologies that support simultaneity in the circulation of data flows have been regarded, in the last two decades, as generating a new temporality of acceleration, also described as ‘timeless time’, ‘time-space compression’, or ‘instantaneous time’ (Castells, 1996; Eriksen, 2001; Harvey, 1990; Rosa, 2013; Urry, 2000; Virilio, 2012). The novel pressures brought by constant connectivity have led to demands for greater productivity and to the normalization of work extension into home and leisure time (Gregg, 2018; Mullan and Wajcman, 2019). These changes are summarized by two main claims: that we live in times defined by speed, with regards to sociotechnical transformations, and also to the pace of everyday life; and that the best way to deal with time scarcity is intelligent scheduling (Nowotny, 2005; Rosa, 2013; Wajcman, 2019; Wajcman and Dodd, 2017), at least for the ones who can afford it (Sharma, 2014). Both claims describe very well the work and lifestyle patterns that the people on whose accounts we report here are enrolled in. However, these circumstances are just a background to their development of creative tactics for stepping aside a time that is continually speeding, and for creating, instead, a wide range of experiences of time.

This chapter contributes to a growing literature addressing the diversity of contemporary experiences of time (Adam, 2004; Bear, 2014; Glennie and Thrift, 2009; Greenhouse, 1995; Guyer, 2007; Keightley, 2013; Wajcman, 2015). While new technologies might contribute to reshaping people’s sense of time, they can also be employed as tools to act upon time—to rewind or slow it down, to disassemble and reassemble it in new forms and interpretations. According to Birth (2012), all cultural systems of time function by mixing ideas of time, as well as the tools for measuring it. The capacity of digital technologies to automatically connect to satellites to determine the exact time does not subsume the problem we inherited in the construction of calendars regarding the difference between the lunar year and the solar year. In fact, we have always used a multiplicity of tools for measuring, and for making

sense of time. While individual experiences of time might be conditioned by the narrative of acceleration, this does not mean that they are always overruled by it. Here we unpack such individual experiences, shading light upon the creativity and agency of people who are acting upon the temporal conditions they encounter by developing tactics of ‘time-tricking’ (Moroşanu and Ringel, 2016).

In the accounts discussed here, the preferred tool for navigating and manipulating time is the smartphone. We approach the smartphone analytically as a cognitive artefact and time-reckoning tool (Birth, 2012). This means that it is an artefact in which humans have placed knowledge, especially, for our purpose here, knowledge about telling the time. The smartphone, like other digital technologies, can tell and display the time with exact precision. As people come to rely on cognitive artefacts, they do not need to continue to cultivate the skills for producing that knowledge themselves. We do not need to be able to tell the time by observing the sky because we can find the time in our pocket. However, people are very good at developing vernacular approaches to technologies—at using them in creative ways for lots of purposes that were not foreseen when the device was initially developed. Digital anthropologists have described such vernacular practices with regards to a wide range of technologies, from radio (Tacchi, 2000), to cell phones (Horst and Miller, 2006), to mixes of communication technologies (Madianou and Miller, 2013). While the smartphone is a cognitive artefact embedding a dominant model of temporal linearity, people are still able to use it creatively in reinterpreting and remixing points in time, tenses, speeds, and durations.

Our discussion focuses on two types of orientations when acting upon time: temporal mobility and media multitemporality. Temporal mobility means moving between distinct points in time, such as jumping from the present to the past. This is when one wishes to escape the present moment, for example in situations that involve commuting, travelling, or waiting. With a smartphone it is possible to jump back to the past, by immersing into browsing one’s photo gallery that might go back up to several years.

In the second orientation, that we call media multitemporality, the past, present, and future are not navigated as distinct points in time, but they become juxtaposed. The philosopher Michel Serres introduced the term “multitemporality” to refer to an understanding of time as containing multiple pleats. This corresponded to his method of inquiry that consisted of placing works from different eras and different disciplines in dialogue (Serres, 1982; Serres and Latour, 1995). In the accounts discussed here, the smartphone allows the juxtaposition of the past, present, and future. They follow an understanding that past moments accumulate a certain emotional value in time that cannot be grasped or foreseen when those moments are originally experienced—when

they are present. With the view of being able in the future to access the value that at present is illusive, the participants reported recording ordinary details of their lives, as well as work outputs, that they would otherwise overlook.

This chapter brings together ethnographic findings from two separate studies. The first study looked at digital media practices in relation to energy demand in UK homes between 2011 and 2014, and it was part of a wider interdisciplinary research project addressing digital interventions for reducing energy demand. The second study investigated functional mobile image capture in the workplace, and it was conducted in 2018 in Cambridge, UK, as part of an industry placement research fellowship. Here we focus on findings regarding temporal navigation via smartphones, which are common to both studies. While the first study took place in domestic settings, the second study was set in the workplace. By bringing these findings together we therefore address the ways in which smartphones are employed to act upon time across settings. We describe the studies in more detail below, in the two sections that are dedicated to temporal mobility, and, respectively, media multitemporality. Throughout this chapter we use pseudonyms when referring to individual research participants.

### **‘NORMALLY, TIME IS SOMETHING THAT WE DON’T HAVE ENOUGH OF ANYWAY’: TEMPORAL MOBILITY AND TIME SCARCITY**

The ethnographic study looking at digital media practices and energy demand was set in homes in a small town situated in the Midlands area of the United Kingdom. It involved long-term fieldwork with twenty families using a mix of methods from more traditional ethnographic methods, such as semistructured interviews and participant observation, to visual and arts-based methods that were specifically designed to address the topic of time and digital media (Moroşanu, 2016a).

For example, the Tactile Time Collage asked the participants to create an artwork that represented their media practices around the family TV. The collage below, created by Cynthia and her family, places the TV at the centre of a clock face, drawing out all the time segments when the device is on (figure 6.1). It includes other devices that are employed concomitantly, such as smartphones and laptops; and food and beverage items that accompany the usage, such as toast and cups of tea. The routine of each family member is represented by their initials. The collage also includes small pieces of fabric that provide a tactile representation of what each segment of time in the collage feels like for each family member. For example, the daughter chose a



Temporal mobility was mentioned in the Cambridge study as well. The participants reported that when commuting, travelling, or waiting they often used their phones to remember happy times, by looking at photos from holidays, or to explore an interest that they hoped to materialize in the future. For example, Isabelle described how she usually spends her time while on the train, searching and selecting images for products she is interested in: ‘So, this is an industrial light I’m entertaining to put into my living room. Sometimes I sit on the train and browse and think “Okay, this one I like.” So I take a screenshot and keep it aside’. The screenshot is part of a list of images of products that Isabelle curates with the view of consulting later, and eventually making a decision. Having a smartphone that streams data regardless of Isabelle’s physical location means that she can spontaneously engage in curating her list while on the train. This keeps Isabelle entertained while travelling, but it also affirms an interest that she wishes to explore in the future. She projects her attention to a future that she is excited about, leaving behind a dull present moment. Similarly, she recalls a conversation with her boyfriend via a messaging app where they debated ideas for weekend trips. Reading about a photography exhibition in London, they were prompted to search and then share each other’s favourite photograph from the online exhibition brochure. As a preparation to visiting the exhibition as a couple, they had already tried out a way of finding more about each other by sharing miniature digital versions of the photos they anticipated viewing holding hands.

Actions of temporal mobility facilitated by smartphones reflect the participants’ wishes to escape a present moment that is not particularly enjoyable, but they also suggest time scarcity. There is a sense that by doing a specific task now they might be able to free some time for later, such as in the example of Chris doing a time trade. Time scarcity means that people are not able to do all the activities they are interested in. At the time of the interview, Isabelle had not visited the photography exhibition yet. While being aware of time scarcity, the participants in both studies expressed the wish to keep cultivating varied interests rather than conceding to uneventful and predictable routines. Comparing his family’s work and lifestyle patterns with his parents’ generation, Chris says that his evenings are not aligned to repetitive routines, but they bring a bundle of varied tasks that need to be completed, from supervising children’s homework to arranging next day’s work trip:

Normally, time is something that we don’t have enough of anyway [ . . . ] I guess the modern world and family processes, they don’t really lend themselves to the kind of relaxed, context repetition of previous generations. I mean, we’re just doing whatever we need to do to get everything done at the moment, aren’t we?

Time scarcity and the feeling of always being rushed provided a background that encouraged actions of temporal mobility. Evenings often involved jumping from being present in the moment and enjoying family time, to planning work tasks for the next day. One participant in the first study admitted that he kept checking his email through the night, between sleep cycles, in order to send swift replies to work partners located in other parts of the world with significant time differences, such as Asia. However, most participants referred to a temporal threshold that marked the definitive end of their working day, when they would definitely stop checking their work email. This tended to be 10 o'clock in the evening, coinciding with the late evening news bulletin. Nicholas, a participant in the second study, reflects on his habit of keeping a set time that symbolizes the end of the working day:

So I have, kind of, a thing, as it were, when the clock changes to 22:22 at night, quite often I'll take a screenshot of that. It's quite significant. I'll have hundreds of them as a general rule, and I'll send them to various friends. It's almost a marker that the day is done, 'Well done, you've nailed it'.

Having made it through another day of meetings, research, and presentations at his senior job for a tech company, Nicholas feels the need to celebrate by sharing with his friends, via a messaging app, the realisation that the day has ended. The moment that he shares is not related to what he is doing at the time, as one of his friends, for example, sends photos of her feet up on a footstool, relaxing. What he shares is the moment when the clock on his phone changes to a numeric pattern that for him signifies the end of the day, while also displaying a distinctive visual feature. When using digital clocks that follow a twenty-four-hour display, the visual representation of 22:22 is screened only once a day, for sixty seconds. It is a relatively rare moment when numbers are aligned in such a distinctive pattern, and, more significantly, it is a moment that Nicholas can observe.

The counterpart to this time is 11:11, which is part of the work hours and, presumably, during the busiest time of the day. Clock changes in the day signify activities—the next scheduled meeting, the departure time of a train. In the evening, however, it is possible to notice the clock change without having to think about the next activity. Time is no longer a constraining factor that one needs to fight against, but it becomes externalized—a flow whose changes are noticeable, just as it is possible to observe the wind or the rain. The fact that in recent years the visual representation of time has shifted from analogue clock faces to digital numeric representations that are featured on almost any digital device, from fitness trackers to smart fridges, is not unrelated to a growing sense of time scarcity, as argued elsewhere (Moroşanu,

2016a). While analogue clock faces allow the viewer to anticipate the next hour and literally watch the time go by in repetitive cycles, digital clocks only show the exact current time; similarly to a stopwatch, the visual counting up in a linear progression displayed on digital clocks encourages an imagination of time as something to be racing against. In the example given by Nicholas, 22:22 marks the finish line. That is the end of his working day, but also the moment when time measurement ceases—‘a marker that the day is done’. What follows, until the next morning, is a segment of life that one is not required to juxtapose over a numerical timeframe.

**‘THINGS THAT YOU THINK ARE BORING  
EVERY DAY AREN’T IN THE FUTURE’:  
MULTITEMPORALITY AND FUTURE NOSTALGIA**

The second study we report upon in this chapter looked at image capture for information—the ways in which people use smartphones to take pictures or screenshots of informative content. It was conducted in Cambridge, United Kingdom, and it included semistructured interviews with nineteen participants and, in some cases, workplace tours addressing some of the situations, and locations, where the participants captured functional photos. From the overall sample, a subsample of twelve participants worked for technology companies, which represent a large part of the industry sector in Cambridge. Here we focus on the findings that emerged from working with this subsample.

We found out that in the functional photos people took and kept, there was often a connection with temporal frameworks and experiences. These images included smartphone screenshots of snippets of information to be used or shared with friends in the near future, such as train times or cinema listings; pictures that the users took of their shortlisted preferences to be perused and decided upon later, such as labels displaying the price and the dimensions of rugs viewed in a shop; photos that assisted with completing a task in the moment, such as the reading of an unreachable gas meter located high up in a cupboard that the user had to write down and send to their gas provider; pictures of achievements to be included in a long-term collection, such as cakes one has baked, or completed puzzles one has solved; snapshots of serendipitous encounters, with neighbourhood cats, or funny signs on city streets, that one wanted to remember. This variety of information was recorded and stored on smartphones for virtually forever, as the memory capacity of the device, or the costs of cloud storage, were not considered to be limiting factors. The number of pictures that people stored on their phones was more than twenty



thousand in some cases. These archives were often consulted in search for specific information, and sometimes casually browsed for passing the time.

One category of photos was present in most of the accounts, and it highlighted the participants' different expectations regarding the future. This consisted of pictures of information written down on whiteboards. At the end of meetings that included scribbling down solutions or ideas on a whiteboard, the participants took pictures of the resulting text and sketches. This was sometimes for a clear purpose. For example, Steven, a computer scientist, recalled that he would capture the information on whiteboards in a meeting room when realising that his team's time was up, and the group that booked the room for the next time-slot was waiting at the door. He would use that picture as a resource when, back to his desk, he drew out the action points.

In other cases, the participants took pictures of whiteboards with no exact purpose, but with a general expectation that the information might prove valuable in the future. Sarah, a software engineer, reported that she would take whiteboard pictures during workshops if other people in the room did. She explained: 'I'd think they'd seen something of value that they wanted to keep for later, so I might as well. You don't know what you'll need in the future'. The fact that the field that she is working in is moving fast, means that any information and ideas emerging from workshop interactions might become useful at some point, in the near or far future. Sarah would not take the risk of missing out on information that her colleagues are recording.

Dave, a researcher in human-computer interaction, recounted similar practices of collecting with the view of future needs. He described himself as 'a bit of a squirrel' because he keeps all the photos he has ever taken. His reasons for taking whiteboard pictures were somehow different. While he knew from experience that he might never use those pictures again, he still wanted to store them for sentimental reasons:

There's a lot of stuff where it's relevant in the moment. I take a photograph of it that I'm probably never going to use for anything. But it's still nice to have a record of it, because when you've worked on something for a while it feels wrong to just throw it away immediately.

By creating a record of the workshop outputs, Dave tries to extend the present moment and affirm the efforts of the workshop participants as meaningful. At the end of the workshop, following the excitement of discussing and bouncing off ideas, the outputs feel relevant. This moment is extended through the act of taking a picture. Whether or not the workshop results would be appreciated or taken forward by the management, for Dave there is still value in the time he spent working on that topic.

In these examples of people taking pictures of whiteboards, the present moment is evaluated in relation to imaginations of the future. If recorded correctly, the present might provide an answer to future questions and needs that one cannot yet foresee. These are cases of what we call media multitemporality, following the concept of multitemporality developed by Serres (1982). The past, present, and future are here juxtaposed in the action of taking a picture. An image of workshop outputs represents a record for the future, it pays tribute to the work undertaken in the very recent past, and it brings additional meaning to the present, as the moment when a potential solution to a future question has been created. This juxtaposition is achieved with a single tool—the smartphone—which can be employed for taking pictures, distributing them to everyone in the room, and storing them. Had the tool been missing, or not displayed these affordances, Sarah and Dave might not have cared about documenting the workshop outputs. One can argue that the access to, and ease of use of the tool, supports approaches to time that involve juxtapositions of past, present, and future—or media multitemporality.

By using a smartphone, it is possible to create an individual archive that includes the thoughts and ideas one has been exposed to over the years and the situations where one has imagined solutions and scenarios. These potential ideas for the future are then collected alongside photos of food one has made, and cats one has met, in a surreal collage of moments one has lived. Here the smartphone emerges as a tool for curating and maintaining an archive of the self. A designer working for a tech company, Umesh had lived in six different cities by the time he was thirty-one. Below he talks about the ways in which he consults the photo archive on his phone:

Umesh: I have pictures from 2011 or 2012 here, and sometimes, when I don't have anything better to do, I just look back and I remember that day, or whatever. I lived in six different cities for a considerable amount of time in each, so sometimes I just look for the city name and it shows me where I was. I was in Bangalore for almost four years, so I just search for Bangalore and it shows me all photos from there. And that's a particular time that I spent—starting from friends, to some forms that I filled in, to screenshots. But I like having all these. Like when I first got my iMac, to some medicine that I bought and why I bought that [laughing].

Roxana: So, do you remember the moment when you took this photo?

Umesh: I don't remember it without seeing it. This acts as a trigger for me. This is something I was working on [photo of computer screen], then photos of my workplace. Because I don't work there anymore, but I want to remember, so that's why I have pictures.

The pictures Umesh enjoys browsing represent everyday details that when brought together recreate a certain period in his life. They are not photos of events, but evidence of his day-to-day preoccupations and experiences. The moments, and things, that were significant enough, for various reasons, for him to capture at the time, help him to remember the ordinariness of life in a different part of the world. This practice of reminiscing by browsing his camera roll counteracts the overarching dynamic of constant moving from one place to another following career opportunities. Scattered over six cities around the globe, his memories and experiences can be collected in one place—his phone—that does not leave room for error. If his memory might ever play tricks, for example confusing the Bangalore with the Bangkok workplace, he would be able to tell them apart by checking the pictures stored on his phone. When he feels like reminiscing, Umesh can consult this archive of the self, taking his time to reflect on past moments that otherwise might get lost in the accelerated work and lifestyle patterns he is enrolled in.

Sarah describes a similar orientation to documenting the familiar and ordinary details of life:

I've started doing One Second Every Day, which is a video app, where you take one second clips of video, and then you can go back and see it, which I quite like for the nostalgia aspect. But, what I actually realised about it, is that things that you think are boring every day, aren't in the future. So, if I go back and look, I've been doing it for over a year now. A year ago I was living in a different house with a different group of people, and there's just all these little things, which at the time I was like, "Oh, I should just take a picture of something," and it was boring. And now I'm like, "Oh, yeah, the kitchen looked like that," and "We used to watch that TV show," and stuff like that. So, I try and keep stuff that's just random pictures because in the future it might mean more than it does right now. For example, if I take a picture of my office right now, I'd be like, "Why would I want to look at that? I'm in my office for eight hours every day." But if I moved jobs, even if I moved to a different office in the building, I might be like, "Oh yeah, that's what I had in my office." It's a nice feeling, so I'm kind of prepping myself for that feeling in the future.

What Sarah describes here is how she has learnt to appreciate visual representations of what she previously considered to be routine and noneventful occurrences, 'boring things' as she puts it. The value of these visual records is to be recognised in the future, after one has moved or changed routines, and therefore altered the texture of their everyday life. When taking 'random pictures', for example of her office, Sarah anticipates her future nostalgia. She prepares for the nice feeling that comes with nostalgia by creating the conditions and the visual material that would later trigger it. When taking the

picture, she conveys additional meaning to an everyday setting by imaging how she would look at the visual representation of this setting in the future. In this example, by being juxtaposed with the future in an action of media multitemporality, the present achieves a higher status. The present is not just an ordinary moment, but it also is the future past. When one is in a rush and cannot stop to fully appreciate the present, one can always take a photo to return to and reflect upon later. The smartphone allows for rewinding as well as forwarding, and any other customised mixes of points in time that one might wish to create.

## CONCLUSION

The approaches to time described in this chapter are certainly not timeless. They are situated within a framework of speeding and time scarcity that requires clever solutions for one to succeed at work while still maintaining a sense of enjoyment of one's life. The people we talked to are striving to make it, to beat time, and constantly prove that they are up to date with the contemporary sociotechnical changes affecting their area of work. Like the tech workers described by Wajcman (2019), who are watching and listening to content at double speed so that they can cover more information and be savvy about new trends, our research participants have their own creative techniques for riding the speeding waves of time. They are not trying to evade time, but are finding ways of working with, and within, acceleration.

In the accounts we discussed, the smartphone is a multifaceted tool that can serve almost any purpose. People use it for work, for keeping in touch with their loved ones, and for entertainment. Similarly, it can connect to almost any point in time—future, past, and present. It is employed for scheduling future meetings, browsing through old photos that bring back happy memories, and sharing information in the moment, such as live location. Because of its multifaceted nature that covers all these areas of life, the smartphone is a tool that can be used to curate and maintain an archive of the self that is almost all-encompassing. The information stored on a phone, from photos to apps, does not in the least represent solely a work archive, just as an individual cannot be reduced to just one of their social roles and interests.

However, if during times of acceleration, a single aspect of life, such as work, might sometimes take primacy, people are able to remind themselves that they are complex individuals, and not just workers, by browsing through the evidence in their phones. That is, evidence of their lives that are not lived for single and clear purposes alone, but include happenstances that make no sense, moments of pain, or joy, that appear unexpectedly, serendipitous

encounters that might provoke laughter, or change one's life course. People access and enact this complexity when they use their phones to navigate between points in time, or what we call temporal mobility. Instead of staying in the moment that they have been allocated within a linear temporal framework, they travel through time to moments when they were, or will be, different—moments that display other facets of their personalities and other interests than what they are engaged in at present.

Furthermore, by anticipating many other such moments to come, people change their experiences of the present. In actions of media multitemporality, when past and future are juxtaposed onto the present, the present becomes more than a rushed moment between two meetings. From constraining, the present becomes open-ended: it is the future past that one would appreciate and feel nostalgic about in the future. With its newly achieved potential, the present is then better equipped to stand the test of time: it might be a fleeting moment, but it is not a moment to disregard. Acting on time is an ethical project (Moroşanu, 2016b), a way of expressing the values one wants to live by. Acceleration does not erase these values, as people find ways to salvage the present and to record evidence of lives that are being spent purposefully, and not always in a rush.

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## REFERENCES

- Adam, B. 2004. *Time*. Cambridge: Polity Press.
- Bear, L. 2014. "Doubt, Conflict, Mediation: The Anthropology of Modern Time." *Journal of the Royal Anthropological Institute* 20(1): 3–30.
- Birth, K. 2012. *Objects of Time: How Things Shape Temporality*. New York: Palgrave Macmillan.
- Castells, M. 1996. *The Rise of the Network Society*. Oxford: Blackwell.
- Dourish, P. 2001. *Where the Action Is: The Foundations of Embodied Interaction*. Cambridge, MA: MIT Press.
- Eriksen, T. 2001. *Tyranny of the Moment: Fast and Slow Time in the Information Age*. London: Pluto Press.
- Glennie, P. and N. Thrift. 2009. *Shaping the Day: A History of Timekeeping in England and Wales 1300-1800*. Oxford: Oxford University Press.

- Greenhouse, C. 1996. *A Moment's Notice: Time Politics Across Cultures*. Ithaca, NY: Cornell University Press.
- Gregg, M. 2018. *Counterproductive: Time Management in the Knowledge Economy*. Durham, NC: Duke University Press.
- Guyer, J. 2007. "Prophecy and the Near Future: Thoughts on Macroeconomic, Evangelical, and Punctuated Time." *American Ethnologist* 34(3): 409–21.
- Keightley, E. 2013. "From immediacy to intermediacy: The mediation of lived time." *Time & Society* 22(1): 55–75.
- Harvey, D. 1990. *The Condition of Postmodernity*. Oxford: Blackwell.
- Horst, H. and D. Miller. 2006. *The Cell Phone: An Anthropology of Communication*. Oxford: Berg.
- Madianou, M. and D. Miller. 2013. *Migration and New Media: Transnational Families and Polymedia*. London: Routledge.
- Moroşanu, R. 2016a. *An Ethnography of Household Energy Demand in the UK: Everyday Temporalities of Digital Media Usage*. New York: Palgrave Macmillan.
- . 2016b. "Making Multitemporality with Houses: Time Trickery, Ethical Practice and Energy Demand in Postcolonial Britain." *The Cambridge Journal of Anthropology* 34(1): 113–24.
- Moroşanu, R. and F. Ringel. 2016. "Time-tricking: A general introduction." In Special Section—Time-Tricking: Reconsidering Temporal Agency in Troubled Times. *The Cambridge Journal of Anthropology* 34 (1): 17–21.
- Mullan, K. and J. Wajcman. 2019. "Have mobile devices changed working patterns in the 21st century? A time-diary analysis of work extension in the UK." *Work, Employment and Society* 33(1): 3–20.
- Nowotny, H. 2005. *Time: The Modern and Postmodern Experience*. Cambridge: Polity Press.
- Ofcom. 2014. *The Communications Market Report*. London: Ofcom.
- Rosa, H. 2013. *Social Acceleration: A New Theory of Modernity*. New York: Columbia University Press.
- Serres, M. 1982. *Hermes: Literature, Science, Philosophy*. Baltimore, MD: John Hopkins University Press.
- Serres, M. and B. Latour. 1995. *Conversations on Science, Culture, and Time*. Ann Arbor: University of Michigan Press.
- Sharma, S. 2014. *In the Meantime: Temporality and Cultural Politics*. Durham, NC: Duke University Press.
- Tacchi, J. 2000. "The Need for Radio Theory in the digital age." *International Journal for Cultural Studies* 3(2): 289–98.
- Urry, J. 2000. *Sociology Beyond Societies: Mobilities for the Twenty-First Century*. London: Routledge.
- Virilio, P. 2012. *The Great Accelerator*. Cambridge: Polity Press.
- Wajcman, J. 2015. *Pressed for Time: The Acceleration of Life in Digital Capitalism*. Chicago: The University of Chicago Press.
- . 2019. "The Digital Architecture of Time Management." *Science, Technology & Human Values* 44(2): 315–37.
- Wajcman, J. and D. Dodd, eds. 2017. *The Sociology of Speed: Digital, Organizational and Social Temporalities*. Oxford: Oxford University Press.