

Pressed for time

The digital transformation of everyday life

Huvudanförande vid Sociologidagarna i Uppsala 10–12 mars 2016

Judy Wajcman, London School of Economics

THE TOPIC OF my lecture, the relationship between technology and time, is a very long-standing interest of mine.¹ I started academic life as an economic sociologist so I was brought up on Marx and Fordism, and E.P. Thompson's famous essay on "Time, work-discipline and industrial capitalism" (1967). So I've always been fascinated by the significance of clocks for accurate time keeping.

So I'm intrigued by the widespread perception that the pace of everyday life is faster than it used to be. That we live in an acceleration society – from high speed trading to speed dating, the world seems to be spinning ever faster. No wonder everyone complains about how busy and time pressed they are. We are also constantly told that the rate of technological innovation is accelerating – and that these two things are causally linked.

Now, if we believe the cyber gurus of Silicon Valley, this speed will make our lives better by making us more efficient, allowing us to do many more things, faster and simultaneously. Digital devices are sold to us as timesaving tools that promote an exciting action-packed lifestyle. There's a technological fix for everything, endless apps for better time management that promise to free up time.

For example, the *Financial times* (2015) verdict on the new iPhone is all about the accelerated 3D Touch interface that: "shaves fractions of a second from emailing, phoning and scores of interactions we have with our phones every day". "Apple refuses to say what the 's' in its iPhone updates stands for, but 'speed' is the 6S' standout feature. All that time saved by its accelerated interface probably adds little to the sum of human productivity ... But now we are used to instant digital gratification, the iPhone brings swift satisfaction to our impatient fingers."

Whether it's the iWatch, self-logging bracelets, or liquid food – yes Californian IT geeks have even resorted to liquid food to save time – it's about us, individuals, making the most of time. And the self-driving car represents the ultimate promise of maximizing time.

1 This address is based on Wajcman (2015).

Acceleration is not just a lifestyle trend however. There is a whole raft of social theory that promotes the idea that digitalization has accelerated time and spawned a new temporality, variously described as: *timeless* time, *instantaneous* time, *networked* time and so on.

Manuel Castells *Network society* is still endlessly cited, where he argues that we are witnessing the end of the linear, clock time of the industrial age. Instead, we are entering a whole new epoch in which time disappears, because the speed of digital technology is annihilating time.

These theories of course differ in very important ways, but they all share the idea that speed is the defining characteristic of contemporary social life, that the driving force is technology, and that it is socially destructive.

It's a cautionary tale about speed that has an uncanny resemblance to more popular literature. Hardly a month goes by without a new book bemoaning our current state of busyness and distraction, advising on how to deal with digital addiction. In all these books, even Sherry Turkle's *Reclaiming conversation* (2015), the hyper-connectivity of digital devices is blamed.

The standard solution is a digital detox, go off the grid and lock up the machines, and return to a more authentic, natural state. Even an acute critic like Morozov talks about having to lock up his phone in a safe in order to think, read and work.

So the first thing to say is that much of the writing on the relationship between technology and speed is still implicitly technologically determinist (although sociologists nowadays claim not to be!): seeing us as simply hostages to the accelerating logic of machines. It is as if technology itself is inevitably driving the fast pace of life.

In my book, I argue that the contemporary imperative of speed is as much a *cultural* artifact as it is a *technological* one. That if we feel rushed and pressed for time, it's because of the priorities and parameters we ourselves set rather than the machines per se.

In other words, once we make the STS (science and technology studies) move of conceiving of technology as a sociomaterial practice, and agency as emerging from human-machine networks – it follows that time practices are also sociomaterial. We understand time with and through machines.

So we need to ask: how acceleration come to signify the zeitgeist, the quintessential experience of modernity, how it gained so much legitimacy, and what are the political implications of this? I am going to end this lecture by questioning the notion that the fastest technologies are necessarily the best.

Before I go on, I want to remind you that we are not unique in considering our period as one of unprecedented acceleration. Our ambivalence towards rapid technical change, our shifts between exhilaration and alarm, celebration and fear, has striking parallels with responses to the massive inventions of the 19th century. For example, Tom Standage's book *The victorian internet* (2014) vividly depicts how the telegraph was then seen as collapsing time and space. And how common it was then to express anxiety about the disorienting effect of speed on our consciousness, emotions, and even politics.

And sociologists will immediately think of Georg Simmel's description (in 1900) of the speed of the modern metropolis and its disorienting effect. In my book I argue that Simmel is really the first theorist of the acceleration society as his analysis of modern time-conscious-

ness as one involving immediacy, simultaneity and presentism resonates very much today.

So, in contrast to a lot of this macro social theory, I would argue that there is a lot of continuity – both in terms of technology but also in terms of the moral panics and messianic hopes accompanying change. [Importantly, this is the period when speed becomes identified with progress.]

It follows that it is a mistake, then, to consider acceleration as a universal, uniform process dominating all aspects of contemporary life. This vision of a single regime of incessant speed attributes too much power to technology itself. Moreover, while these social theorists claim a politics of time, what is actually missing is the temporal – not in the sense of grand historical epochs, but in the sense of lived time – structured in particular economic and political contexts.

In reality, our everyday lives are characterized by a multiplicity of temporal textures and rhythms, which vary in intensity, depending on what, where, and with whom we are doing things. For example, "quality time" with children requires a very special kind of time, and, according to all the statistics, the amount of time both mothers and fathers spend with their children has actually been increasing, not decreasing. And, interestingly, this increase is in "active" childcare, such as talking and playing, suggesting that parenting is becoming more intensive.

In other words, speed is only one side of the dialectical interplay between technology and time, and, while some aspects of life may well be speeding up, others may be slowing down. This is the only way one can account for what is known in the time-use literature as the "time-pressure paradox". What I am referring to here is the well-documented gap between perceptions of time and the behavioural data on time use.

Numerous surveys indicate that people feel rushed and pressed for time, and share a widespread perception that leisure time is scarcer and more hectic. However, what is not so clear is that the amount of leisure time people have has actually decreased. Time-use studies, where people keep detailed daily diaries about what they actually do, show that, overall, the amount of leisure we have has not decreased. Of course it varies a great deal between different groups, but overall leisure time has *not* declined over the last 50 years.

This gap between objective time and how we subjectively experience it, points to the importance of the quality or character of time, and not simply the amount of time we have. And this is where technology comes in.

I have done a lot of research on mobile phones over the decades and it illustrates this pattern well. Here we have a technology originally designed for business that has become an essential tool for coordinating activities in a de-synchronized society.

What I mean by this is that mobiles have become ubiquitous as an organizational tool because of the way we live and work. The increase in flexible working hours, together with the rise of dual-earner families, has made coordinating with other people, even family members, much more difficult. This change in working patterns and family forms is major source of our sense of busyness.

My point here is that the issue is not so much a shortage of time, as a problem of timing or scheduling. And the mobile is a great device in that context. The frenetic iphone addicted citizen may be iconic – but they might be even more hectic without their smartphone!

Of course, all this is predicated on power relations. For example, when discussing email, I always stress that the fact that we feel the need to respond to email quickly is not due to the speed of data transmission, but because of collective norms that have built up about appropriate response times. An individual's ability to resist the pressure of perpetual availability very much depends on the institutional context.

Compare the policies of Volkswagen and Daimler in Germany (where they have strong works councils) about banning email at weekends, and even automatically deleting emails sent during holidays. (apparently the Daimler email says that the person you are sending this to is on holiday and this email will be deleted – if it's important, send it again after the person returns!) If you work for Google, then it is a different story. Eric Schmidt and Jonathan Rosenberg's book *How Google works* (2015), has a section called "Overworked in a good way" where they say that work-life balance policies are *insulting* to smart employees: they have worked with young moms, who go completely dark for a few hours in the evening and then, around 9pm, the emails and charts start coming in and we know we have their attention.

So time is lived at the intersection of an array of social differences in which some people's time is valued much more highly than others, and where some gain speed at the expense of others. In other words, speed is a discourse, not a reality, for many.

Nevertheless, we are all constantly invited to work on our time, and having a good relationship with time is now equated with having a good relationship to technology.

So does it matter, then, what sort of machinery we have? It matters a great deal, that's why I do science and technology studies. So, in my final remarks, I want to consider how our cultural expectations of speed are constantly fed by innovations.

Let me explain. One area in which we have totally bought this story about acceleration is in relation to technical innovation. The sheer speed of innovation is equated with inventiveness, productivity and efficiency. It is the ultimate measure of progress. We have this deeply-held belief that the faster we do things, the more we save time.

We are so immersed in this culture of busyness and hyper-productivity that it's hard to raise questions about whether speed itself should be the ultimate rationale for innovation.

I do not have the space to elaborate on this here, but in the book I question the assumption that "the best" technical design is always about maximum efficiency in the sense of being economical with time. This instrumental philosophy is still at the heart of engineering, in which the latest, fastest, and most automated systems appear as objectively the best.

The over-riding importance of speed to Google's search engine is a good example. Most people don't reflect on the fact that searches favour some content over others, and what gets sacrificed for speed. When I give my talks on gender and technology I often tell the story of how Google had to change their search engine, so that when you type in "she invented", the autocomplete no longer comes up with the query, do you mean "he invented". This was not deliberate gender bias, but the product of how algorithms are *always* influenced by those who design and write them.

When I asked someone at Google why the autocomplete function was so important – surely it would be better to have more accurate knowledge, even if it meant slower search engines, he told me about the importance of latency. Apparently even half a second's delay

on a search engine, which would occur if you increased the results on a page from 10 to 30, causes a 20% drop in traffic. We might think that having more diverse search engines, running different algorithms, is more efficient in the sense of acknowledging the difference between data, information and knowledge, but it would be much slower!

I also wish there was more than one Wikipedia, as I recently examined a great PhD at the Oxford Internet Institute on the people who contribute to Wiki – they turn out to be mostly white men and so both women's content and African content suffers.

We might conceptualise this Wiki work as digital labour, and there is a lot of both paid and unpaid labour involved in maintaining this speedy infrastructure, which is rarely discussed. So I am glad that there has been such a turn in STS towards infrastructure studies and repair studies.

For me this resonates with old debates about the hidden nature of domestic labour. Think about the time it takes us to maintain our digital infrastructure at home, the work of continually upgrading our machines and getting used to new software, etc. The time this takes, rather than saves, is never discussed by the tech industry! [Nor is the move to what we used to call the "self-service" economy.]

Now let me be absolutely clear. I am not nostalgic for a more natural, less digitized, past. Neither do I see the emerging slow time movements (whether it's slow food or mindfulness) as the solution. Rather, I am arguing that we need to be much more discriminating and demanding about the kinds of technologies we want, and the values and purposes they might serve.

And this involves redefining genuine inventiveness as not just about speed and novelty, but about challenging the assumptions that permeate our scientific discourse. To put it simply, it means thinking about social problems first and then thinking of technical solutions, rather than the other way around. I'm disturbed, for example, by the current Big Data bubble: everyone wants to crunch data and then looks for applications for it, as if crunching Big Data is not a political act in itself.

And, I am very struck by how the discourse of speed and novelty permeates the so-called radical visions, the sociotechnical imaginaries, of Silicon Valley – whether it's the Internet of Things or sociable robots. It is actually a conservative vision of a world in which everything is different so long as everything stays the same.

Perhaps this is not so surprising given that the people who design our technology, and decide what is made, are so unrepresentative of society. The most powerful companies in the world today – like Microsoft, Apple, Google – are basically engineering companies and, whether in the US or Japan, they still employ few women, minorities, and people over 40. In the UK, it is staggering that only 7% of the engineering profession is female. As I have argued for many years, this lack of diversity of designers inevitably influences the kind of technology we get.

More subtly, however, Silicon Valley also plays a key role in shaping our hyper-workaholic frenetic culture more generally. I was struck by Emily Martin's book, *Bipolar expeditions* (2009:277), where she talks about how the mania part of manic depression, fluctuating tides of hyperenergy, ideas, enthusiasms, are now seen as an asset, as desirable – the creative, innovative entrepreneurial spirit. Risk taking models like Steve Jobs and

Ted Turner have come to symbolize the radical innovation of Silicon Valley: "This mania is only innovative in ways that the market can value. Echoing contemporary demands for relentless productivity, this sort of mania leads to conformity to the demands of the market, which in turn amplify reigning neoliberal social norms".

Finally, as Ulrike Felt points out in "The temporal choreographies of participation" (2015), participatory practices are also shaped by the ways in which time is *scripted* in innovation. Ontological politics of temporalities at work in participatory practices, not only shape how innovation is conceptualized, and problems get assembled, but also how publics are made and how responsibility is imagined. Thus, omnipresent discourses of speed, acceleration and competition make responsible research and innovation, as well as practices of deliberation, "a waste of time". In other words, the rhetoric of acceleration makes it difficult to argue for responsible research and innovation (<http://www.rri-tools.eu>).

To conclude, our sense of time has always been intimately bound up with our engagement with objects. Digital time is no different – ultimately it needs to be understood as a product of the ways in which humans use, interact with, and indeed build technology. If we want to take more control of time, in the sense of having more "discretionary" time, we must contest the cult of speed and harness our inventiveness to fashion an alternative politics of time.

Perhaps I will give Helga Nowotny the final word. As she wrote in her classic book on *Time* (1994): "any capacity to participate depends on the power and control one has over one's own time".

References

- Felt, U. (2015) "The temporal choreographies of participation: Thinking innovation and society from a time-sensitive perspective". Pre-print; published by the Department of science and technology studies, University of Vienna. Available at <http://sts.univie.ac.at/publications>
- Financial times* (2015) 2015-10-01.
- Martin, E. (2009) *Bipolar expeditions: Mania and depression in American culture*. Princeton: Princeton University Press.
- Nowotny, H. (1994) *Time: The modern and postmodern experience*. Cambridge: Polity Press.
- Schmidt, E. & J. Rosenberg (2015) *How Google works*. London: John Murry, 2015
- Standage, T. (2014) *The Victorian Internet: The remarkable story of the telegraph and the nineteenth century's on-line pioneers*. New York: Bloomsbury, 2014.
- Thompson, E.P. (1967) "Time, work-discipline, and industrial capitalism", *Past & present* 38:56–97.
- Turkle, S. (2015) *Reclaiming conversation: The power of talk in a digital age*. New York: Penguin Press.
- Wajcman, J. (2015) *Pressed for time: The acceleration of life in digital capitalism*. Chicago: University of Chicago Press.