

# **Changing Time: Digital calendars, smartphones and temporal transformation**

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## **Abstract**

We stand at the cusp of a major shift in how we organize and understand time. Technological change profoundly affects time reckoning (Heidegger, 1954) and new ways to reckon time are often harbingers of new ways to order social life (Thompson, 1967). This paper will explore how contemporary web-based technologies affect calendaring and time reckoning in general. Like many other social phenomena, time reckoning is rapidly becoming a “digital” phenomenon. Time is a very fundamental “typification” of social life (Berger & Luckman, 1966, p. 27), yet we have very little theoretical work on the socio-cultural significance of calendaring (Postill, 2002). Millions of people use Microsoft Outlook and Google Calendar. These very common web-based tools represent time in significantly different ways than traditional analogue calendars in that they make appointments digital. Digital artifacts can be ordered, and re-ordered at will, and easily “mashed up” with other artifacts. In this paper, I trace three significant trends in calendaring. First, I will outline how the calendar, like the clock before it, has become increasingly a “personal” artifact. This shift has brought with it significant contestation and constructed the personal calendar into a symbol of “upward mobility.” Second, I sketch out the four ways in which the digital calendars differ from analogue ones: their apparent “bottomlessness,” their networked nature, the ease with which they are altered, and their low-fidelity, impersonal appearance. And finally, I will show how the digitization and personalization of calendaring are intersecting in the rise of personal mobile calendars on smartphones. I will then discuss the implications of these mobile, personal, digital calendars. I argue that the digital calendar is a paradoxical technology, which gives the impression of making “good use of time,” while at the same time masking its character as a labour-demanding device.

## **I. Social studies in time: significance and silence**

The passage of time is a curious human experience; the human mind cannot reliably perceive time’s passage. Time is not consistently intelligible to us without the use of various tools we have developed to remind us. We reckon time using tools. The ways we represent time and to mark its passage are known to

scholars or time as “time-reckoning systems.” The sundial, the wristwatch, the calendar, and the FiloFax are all time-reckoning systems, each with its own symbolic connotation.

We are now using a new kind of time-reckoning system, the digital calendar, which marks a subtle but significant shift in how the Web enters everyday life. From the sundial to the town clock, time-reckoning systems have always included some form of technology. Today, web-based “digital” technology is fundamentally reconfiguring how we mark time. Past research has demonstrated that shifts in time-reckoning systems correlate with other, wider societal shifts such as industrialization and globalization. This paper explores the theoretical implications of Web technologies’ effect on marking time. I argue that Web-based, “digital” calendaring builds on an existing trend of “personalized” time-reckoning systems, but that it has three key differences from other time-reckoning systems. I explicate the significance of these differences and then describe the latest shift in Web-based calendaring: the mobile digital calendar. I conclude by exploring the paradoxical nature of the mobile digital calendar. On the one hand it offers the promise of “better organized” time, but on the other, its constant availability demands that the calendar itself become the subject of labour time. The mobile digital calendar conceals this labour time by giving us the false impression that we are somehow “making time” by organizing our appointments. I argue that this process leads to both more appointments and less time.

### **The Theoretical Importance of Time**

Surprisingly, we know little about the social implications of time-reckoning systems, despite their significant role in structuring social life. These systems

often evolve out of existing patterns of social interaction, such as ritual or public ceremonies. Durkheim observed the temporal aspects of ritual in *The Elementary Forms of Religious Life*: “The division into days, weeks, months, years, etc., correspond to the periodical recurrence of rites, feasts, and public ceremonies” (Durkheim, 1985, p. 119). Rituals and temporal milestones are mutually reinforcing. Such milestones are reaffirmed when marked by cyclical ritual practice, and the symbolic significance of the ritual itself is reaffirmed by its placement in collective time reckoning. Berger and Luckman recognized that the structuring force of collective time reckoning in *The Social Construction of Reality*. They note that time is a “typification” in the “socially shared calendar” which includes collectively recognized various rites, celebrations, and holidays (Berger & Luckman, 1966). This “socially shared calendar” tells us when to have certain activities with certain people, which activities come first, and which do not garner official recognition. The socially shared calendar is a time-reckoning system that has a formidable structural force.

The clock, another time-reckoning system, also has a significant structuring force. Marx recognized the importance of the clock by pointing out the “tricks” capital played, such as moving the hands of the shop-floor clock to “steal” from “meal time” (Marx, Engels, & Fowkes, 1977, 354-5). In his seminal article, Thompson (1967) traced the emergence of the town clock as a harbinger of a centrally ordered time, based on the needs of industrial capitalism. According to Thompson, “clock time” replaced agricultural time, which marked time through the imprecise moving of the sun from day to night and from spring to winter.

Some scholars (e.g., Adam, Whipp, & Sabelis, 2002), have argued that Thompson's case is overstated and that "clock time" is not as hegemonic as he may assert. While this may be true, Thompson's focus on the normative force of the clock tells us much about the structuring of social life. Indeed, some of the most interesting scholarship on time focuses on the struggle over time-reckoning systems.

Changes in the English calendar, for example, ignited riots in 18<sup>th</sup> Century England, as many believed that observing saints' days on the "wrong" days invited bad luck (Poole, 1998). Japan's adoption of the Gregorian calendar marked its symbolic entrance into the Western-dominated world and its ongoing ambivalence about adopting Western ways (Shimada, 1992). In his ethnographic examination of time and working experience on an assembly line, Roy (1959) found that the most senior workers structured and controlled breaks, which came to be known as "banana time." Newer workers (including Roy himself) were subject to the whims of "banana time," which was never theirs to declare. Also on the shop floor, Burawoy (1979) found manipulating time and its representation was a fundamental aspect to playing the game of "making out," or trying to reach a bonus. Workers played against management, but they also played against each other, often by disguising or manipulating time. Struggles over time-reckoning systems are emblematic of wider societal changes.

### **A Gap in The Literature**

There remains a distinct gap in the study of time, despite the significant role time-reckoning systems play in social life. The shift to “calendar and clock time” (CCT) is an important motif in the spread of Western political economic ideals, yet CCT remains a “missing anthropological problem” in scholarship in general (Postill, 2002). Contemporary studies on time tend to have one of two limitations. First, theoretically informed studies often fail to encompass technological changes of time keeping and time reckoning. This is a significant failing, given that these changes are rapidly becoming ubiquitous practices. The speed of technological change has simply outpaced theoreticians’ examination of its impact on time. Second, empirical studies of technology and time tend to focus more on the technology and not on time *per se*. These empirical studies of contemporary technological fail to exploit or improve upon theoretically informed concepts of time in their analyses, despite the fact that ample theoretical work has been done in this area. Theories of globalization, for example, have provided many potentially fruitful concepts to examine empirically. The normative force of time-reckoning systems is clearly an important dimension of globalization. Castells’ (1996) notion of “timeless time,” for example, and Harvey’s notion of “time compression” (Harvey, 1990) yet to be taken up empirically by those most interested in the study of technology. In short, contemporary studies of calendaring technology treat the technology as the single focus of study, rather than examining the context of that technology use. This approach has consistently failed to provide deep insight into how technology is both designed and affects social life (Liker, Haddad, & Karlin, 1999).

Theoreticians have attempted to focus on the context of time reckoning, but a quick review of the literature finds that contemporary technology has largely escaped examination. It is readily apparent that these studies need to be updated to incorporate the enormous changes technology has wrought in the last 10 years. Nippert-Eng (1996), for example, provides an unique analysis of the symbolic importance of paper calendars, and how their user may use them to prop up a (largely metaphorical) division between home and work, but she neither offers any empirical examination of this phenomenon, nor analyzes the use of digital calendars such as Google Calendar. Coffey (1994) also focuses on paper calendars, and more specifically, the FiloFax. In her ethnographic study of trainee accountants, she notes they were all given a FiloFax upon starting their jobs at the accounting firm. She points out that this signifies the “correct” use of time is to “manage” it in a personal and intimate manner. Unfortunately, she does not discuss the digital calendar, which is far more common today. Zalot (2001) also focuses on the paper calendar in his symbolic deconstruction of the paper wall calendar, which hangs like a dull portrait of modernist life. He rightly points out that these calendars reveal time to us in a structured and bland fashion, save only for the monthly picture, which he argues is a distraction to the mundane passage of modern time. His astute analysis of the form of time reckoning (in this case, the paper calendar) is symbolically rich, but unfortunately this study again does not examine contemporary time-reckoning systems such as Microsoft Outlook.

This is a serious oversight. Digital calendars run on most computers bought today. It is not entirely clear how many people reach digital calendars through their computers, but given the sheer numbers of computers bought, we can infer a widespread usage. Microsoft Office includes Outlook by default, which is an integrated email, contacts and calendaring software program. Apple computers include iCal on every new model, and all Gmail users have free access to Google Calendar. Moreover, the growing number of smartphones, which all have built-in digital calendars, is putting digital calendars into the hands and pockets of many North Americans. In the United States, Pew Internet and American Life recently reported (2012) that 46% of all American adults have a smartphone, which roughly corresponds to 110 million Americans (US Census Bureau, 2010). In Canada, there are 25 million mobile phone subscribers, which covers approximately 66% of the population (Canadian Wireless Telecommunications Association, 2011). Of those, 33% are smartphone users, translating to 8 million Canadians, or 22% of the entire population now carry mobile digital calendars (ComScore Inc., 2011). Other studies found the rest of the Western world is not far behind: 40% of British mobile phone subscribers and 40% of Spanish subscribers use smartphones (ComScore Inc., 2011). Given the sheer numbers involved, theoretical investigations of digital calendars (and especially mobile digital calendars) are now very much needed.

Theoretical studies of time-reckoning systems may have not studied contemporary technology, but studies of contemporary technology, unfortunately, fail to analyze the social context of new time-reckoning systems. These studies

may study the technology, but they do not deconstruct the symbolic dimensions of time-reckoning systems, nor do they confer sufficient agency on their users. For this set of literature, “time” is a taken-for-granted category, embraced unproblematically and without theoretical rigour. Digital calendar users are cast as passive consumers of technology. In her survey of Finnish technology workers, for example, Sell (2008) focused on the mobile digital calendar used by the millions of people who now own smartphones. She found they reported high satisfaction with the digital calendars on their smartphones, largely because it improved their “efficiency.” This finding implicitly assumes that “efficiency” is a good thing and something these workers want and value. Yet there is no examination of how “efficiency” is understood, where it places in the wider political economy, and what it may imply for work/life balance. Elsewhere, Sell and Walden (2006) found that digital calendar users were frequently “motivated” to use digital calendars by their “social environment,” or when their workplace adopted a group digital calendaring system. What exactly is the nature of this “motivation” and how are digital calendar users resisting it? Organizational coercion might very well play a role in this kind of technology adoption, yet Sell and Walden do not offer insight into where and how this tension may play out.

Elsewhere, Tungare et al ( 2008) investigated how university employees, including faculty and staff, used the Microsoft Outlook digital calendar. They found that participants often used a separate paper calendar, and often had someone else managing their calendar for them. They offer a few recommendations for improving digital calendar interaction design, but, like Sell,

they assume that people actually want to improve their “efficiency” through their digital calendars and do not offer insight into how this desire might be constructed. Moreover, their findings beg the question: who is “managing” calendars and who has their calendars “managed”? The answer to this question would cast light on how technological time reckoning is (or is not) shifting power in the workplace.

Cooke and Kroeze (2004) did attempt to uncover more about the “managing” versus “managed” calendar. They found that after adopting Microsoft Outlook, workers in an Australian firm spent more time on email than managers did, perhaps because they were responsible for managing their managers’ email and calendars, the authors suggest. But calendaring itself was not the focus of the study and consequently, they don’t offer much insight into how Outlook’s adoption affects everyday temporal experience.

More recently, Leshed and Sengers (2011) interviewed Americans who use various “productivity” tools such as paper calendars and some digital tools. They found a “pervasive culture of busyness” among their participants where “doing” is considered always better than simply “being.” This clearly evokes Kluckhohn’s (1953) anthropological value orientation model, which suggests that “activity” norms are one of five key dimensions of culture, though these authors do not connect their findings to this model, or what this empirical evidence might mean for organizational culture. These authors also note that at least one participant had actively taken steps to “hide” her digital calendar from others in her workplace, suggesting that this new type of time-reckoning system is indeed a

site of struggle. Though here too there is no connection back to, say, Thompson's (1967) analysis over the struggle over clock time. Leshed and Sengers, to be fair, are more focused on the *design implications* of their findings, which they clearly lay out in their conclusions. Unfortunately, however, this design focus limits their theoretical contribution to the study of digital time reckoning.

In short, theoretical examinations of calendaring tend to focus on older time-reckoning technology, while empirical studies of contemporary time-reckoning technology fail to provide theoretical insight into this technological shift. My paper aims to fill this gap by providing a theoretical examination of the digital calendar. Like Blumer (1954), I renounce what he calls "taking in each other's washing," or the endless echo chamber of theorists speaking only to each other. I suggest some specific, sensitizing concepts I currently research empirically. In the remainder of this paper, I first outline the move toward more personal and intimate character of time-reckoning systems. I then discuss how the *digital* time-reckoning system of the digital calendar differs from previous time-reckoning systems like the calendar. Finally, I discuss the smartphone, its built-in digital calendar and the social effects this shift implies.

## **II. Personalization: From clock to calendar to smartphone**

We typically track days using calendars, which were initially derived from the season shifts in the sun's position. Now social actors keep their "own" calendars, which list their personal appointments, alongside the "socially

recognized calendar” of public holidays. The personalization of time is akin to the social world’s individualization in general. Shifting from one, centrally observed calendar to a personal, physically intimate calendar is a remarkable transition. It signals a metaphorical individualization of time reckoning; social actors now are personally responsible for knowing and monitoring time. A contemporary social actor who relies solely on passively consuming obvious temporal signposts, (such as Durkheim’s rites and feasts) will quickly find herself out of step with current temporal practice. Contemporarily, Western social actors are expected to observe the socially recognized calendar, as well as routinely consulting their own personal calendar. Time reckoning is now a deeply personal and individualized task, which relies heavily not on the socially recognized calendar but on individually managed tools and technologies.

This process of the personalization of time reckoning began with the transition from the town clock to the watch. Once, the town clock chimed to signal the beginning of work at the local factory, signifying a collective commitment to factory life. The clock on the shop floor signaled the “end of work.” This chime was not terribly different from the Church bell, inasmuch as it collectively experienced and centrally controlled. A centrally located clock gave employers, according to Thompson (1967), the advantage of “owning time.” He provides the example of a boy factory worker in Dundee in 1887, who complained that the factory masters routinely moved the hands of the clock to extend the workday. The factory owner was moving the goalposts on time reckoning.

The personal watch, by contrast, is a miniature version of this shared clock, and is maintained, cared for and consulted by only its owner. A watch, unlike a clock, is physically strapped to its owner. It is an intimate companion, following its owner everywhere. Symbolically, the watch signifies a “personal” notion of time. Its owner must wind the watch. It is consulted throughout the day, sometimes simply by accidentally catching a glimpse of the current time. It is its owner’s personal representation of time, which may or may not match the town clock or the clock on the shop floor. It is a personal time-reckoning system.

In the early days of the personal watch, owning a watch signified status and wealth, and indeed it was usually only the very wealthy who could afford to personally “own time” in the form of a watch. Eventually, as watches became less expensive, they came to signify an overt commitment to industrially ordered time (Glasmeier, 2000). The personal wristwatch became emblematic of 20<sup>th</sup> century time reckoning. Workers were no longer called to offices and factories by the striking of the town clock. Instead, they were now expected to know it is “time for work” and to act accordingly. In this way, time reckoning became an invisible skill, one in which individual actors were required to become conversant. Culturally competency in the 20<sup>th</sup> century meant having an intimate and regular connection to time.

Personal watches are no longer the predominant personal time-reckoning tool. Between 2001 and 2005 alone, U.S. watch sales five per cent (Packaged Facts, 2006). Seiko Corporation USA President recently told jewelers’ magazine *JCK* “None of us who are serious about the watch business say we sell time. We

sell image, style, and functions other than time telling” (Shuster, 2007). The watch has become more of a luxury good than a time-reckoning tool. If watches are no longer the dominant personal time-reckoning system, then what is?

The mobile phone, like the wristwatch before it, now signifies a visible commitment to modern temporal (and communication) norms. Once the wristwatch was the *de rigeur* symbol of a culturally competent member of Western society. The mobile phone has taken the wristwatch’s symbolic place. At the same time, the mobile phone combines the watch with the calendar. Today’s mobile phone is just as likely to be a smartphone, which have digital calendars and clocks built into them. The personal character of the wristwatch has been conferred onto the smartphone. The personal character of paper calendars, such as the FiloFax, cements this intimate symbolic dimension of the smartphone. Symbolically, the smartphone’s personal character mirrors both the wristwatch and the FiloFax.

The FiloFax emerged as a personal time-reckoning system in London in 1930. An Englishman, having discovered American engineers’ system for organizing work, adapted the system for the individual and dubbed it “FiloFax” or “file of facts.” Initially, the FiloFax was designed to organize contact and key facts, but it soon incorporated the personal, portable calendar (FiloFax UK, 2011). By 1980, the FiloFax became a popular tool among investment bankers in “The City,” or the financial district in London (Wallop, 2011). The ability to organize time effectively came to symbolize “upward mobility” of the 1980s.

The FiloFax became requisite equipment for the “young urban professional” or “yuppie.” The 1990 film “Taking Care of Business” starred James Belushi as an convict who’s life is transformed when he steals Charles Grodin’s FiloFax, which contained Grodin’s meeting schedule. The well-organized appointment calendar was portrayed as the ticket to a higher economic class. Belushi often runs into trouble when he fails to consult the FiloFax, and is caught unprepared for important meetings. He eventually learns that there is value in the FiloFax and he should consult it. Certainly, Grodin’s rich social capital of contacts was part of the package, but being able to organize one’s life in a “proper” fashion signified the upward mobility of yuppie life (McMurdo, 1989).

Today, the FiloFax continues to be a popular paper calendar, but increasingly this personal time-reckoning task is performed by the smartphone. Like the FiloFax before it, the smartphone is also an intimate technology meant to be carried everywhere. It is designed to be “holstered” on a man’s belt or to fit precisely into pockets pre-stitched into contemporary women’s handbags. It is also possible to sync the smartphone with a workplace network, thus automatically adding one’s email contacts, emails, and calendar onto the smartphone. In the face of such easy automation, it is all the more tempting to choose the smartphone over the paper FiloFax.

The FiloFax has given way to tools to Google Calendar and Microsoft Outlook on smartphones. The town clock gave way to the watch, which in turn, has given way to the smartphone. This is a consistent trend toward individualized, personal and intimate time-reckoning systems. The smartphone is just the latest

tool in this process. Yet, unlike the shift from shared paper calendars to individual FiloFaxes, the shift to the digital calendar represents a much more significant technological change: time on a smartphone is “digital.”<sup>1</sup>

### **III. Digitization: how digital calendars differ**

What does “digital” time reckoning mean? When a mobile computer keeps time, it transforms it into what Negroponte (1995) calls “co-mingling bits,” or small, computerized units of information that can be ordered, re-ordered, and combines instantaneously with other data. A digital appointment can be instantly combined with other information such as a time and place, the names of invitees, background documents or Web pages. Digital appointments can also, like all digital information, be stored, catalogued and be searched rather effortlessly in tiny amounts of physical space. Data from a digital calendar is easily reconfigured with other computerized data. This is a digital calendar. Paper calendars cannot be reconfigured or combined as easily with other pieces of information. The digital calendar reduces time to computerized data. How does this transformation affect the calendar?

The digital calendar differs from an analogue, paper calendar in three key ways. First, it is quickly altered through a few clicks instead of the handwriting required of a paper calendar, such as a FiloFax. When a digital calendar user wants to change or add an appointment, the software allows for a quick “drag

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<sup>1</sup> The digital clock is indeed different from the analogue clock in that it has no moving parts. Most contemporary watches today also have no moving parts, even when they have hands that move (Fédération de l'industrie horlogère suisse FH, 2007). But in this paper, I am more concerned with the differences between the digital and the analogue calendar.

and drop” of the appointment to its new time. The paper calendar owner must copy down names, places, and addresses carefully by hand. The typist simply clicks keys on a keyboard. The digital appointment, therefore, can be adjusted or cancelled more easily and quickly than a handwritten appointment. This quickened pace of adjustments makes it relatively easy to change times and places of appointments.

Second, unlike a paper calendar, the digital calendar is effectively “bottomless,” in that appointments can be scheduled simultaneously, *ad infinitum*. The paper calendar, by contrast, is limited by the physical amount of space it has, whether it be a day per page or a week per page. Once the paper is filled with appointments, the paper calendar user quickly realizes that he or she has simply “run out of time.” The digital calendar user, by contrast, can theoretically have limitless appointments that overlap, abut, and conflict without the calendar user noticing. This bottomless appearance leads to the mistaken impression that there is somehow more “time in the day” than there actually is.

Third, the digital calendar is more readily accessed and added to by other people. In other words, the digital calendar is *networked*. For another person to add an appointment to a paper calendar, he or she must physically touch and write in the calendar. The calendar is often considered an intimate tool, usually confined to either its owner or perhaps his or her secretary. By contrast, the digital calendar can be made “open” in several ways. Other digital calendar owners can send digital “invitations” as email attachments. When opened, these attachments are, by default, automatically embedded in the recipient’s digital

calendar. In this sense, the digital calendar is far less guarded than the paper one. But digital calendar owners can go further and “share” their calendars with others. Oftentimes, this is the default setting for people within the same firm. So one individual (a supervisor, for example) can view the calendar of a member of her department from her own calendar. She can check to see if that other worker is busy at a given time. Depending on the calendar settings, she may also see precisely what that worker is doing, with whom, at what time. In this way, the digital calendar is a far less intimate item than the paper calendar. As we saw in Leshed and Sengers’ research (2011), individuals sometimes “hide” their digital calendars from others within their firms. In their 2001 ethnography, Darrah et al (Darrah et al., 2007) also found that one participant intentionally “booked” time in her digital calendar to show to her colleagues how busy she was. These are both examples of struggle over workplace time reckoning, as Marx, Thompson, Roy and Burawoy all found in their work. The digital calendar, like the paper calendar before it, is also a site of struggle, played out largely invisibly by workers sitting behind computer screens.

The digital calendar differs from its analogue counterpart in a fourth way. It is paradoxically impersonal when compared to the analogue calendar because it is not a physical artifact, but a computerized one. On the one hand, the digital calendar is only accessible via unique and very personal password, but on the other hand, it looks and feels exactly like any other person’s calendar. The use of standardized font faces and sizes eliminates the identifying essence of handwriting. The analogue calendar is a physical object, which is annotated by

the hand of its owner. Comments, notes to self, and coded iconography are all high-fidelity clues to the personalized nature of the analogue calendar. One's handwriting (or perhaps one's secretary's handwriting) is all over the physical calendar, adding personal colour and character. The FiloFax is deeply personal in that it has these individualized annotations. The digital calendar, on the other hand, has none of this high-fidelity clues to its editing. Adding an appointment is done through a keyboard, thereby eliminating personal handwriting as a clue to the event's authorship. Margin notes are similarly "mass produced," and look like any other person's notes to self.

#### **IV. The smartphone: where personalization and digitization meet**

The smartphone's inherent mobility adds a further wrinkle to the digital calendar. Smartphone users have regular, intimate contact with one's digital calendar throughout the day, and in various locations. The ease of changing or adding appointments becomes possible at all physical places and times. Because users tend to carry smartphones on their physical person most of the day, additions and changes can happen at any time – even immediately before the event. Last-minute events are possible not just because the calendar is digital, but also because it always immediately accessible. This means that the spaces in between home and work – dubbed delightfully "interspace" by Hulme and Trutch (2005) – are now touched by digital calendaring. To be sure, paper calendar users have carried their FiloFaxes through "interspace" for decades. But

the smartphone is a *networked* calendar, which can be viewed by anyone who has access. This implies that the smartphone user can be sent – and accept – an invitation to attend a meeting at any point. Whereas a paper calendar user would have to answer a phone or pick up the mail to add a meeting, the smartphone user can simply click “accept” at any time.

This kind of scheduling has indeed been noticed by other authors, most notably by Ling in his study of mobile phones. “Micro-planning” is a common technique that mobile phone users employ to make plans immediately prior to appointed times (Lenhart et al., 2010; Ling, 2006). In her study, Sell (2008) did in fact find that mobile digital calendar users considered the constant accessibility of their calendars a distinct advantage in achieving “efficiency.” Conceivably, micro-planning is next to impossible to achieve with a digital calendar fixed to a desktop or laptop computer. The smartphone makes this digital calendar on the one hand more personal and intimate, and on the other hand, much more accessible.

## **V. Making sense of the mobile digital calendar**

Arnold (2003) describes the mobile phone as Janus-faced. In his phenomenological analysis, he writes that mobile phones are inherently ironic in that they offer a promise and a promise denied at the same time. Mobile phones connect us more tightly to people, but at the same time alienate us *from* people. He gives the example of being on a train and having an intimate mobile phone conversation with someone not present, while at the same time, you are disconnected from those directly around you. Mobile phones are like all

technology, Arnold argues, in that their semblance and their essence are often directly contradictory.

The mobile digital calendar has a similar Janus face. We can schedule our time much more quickly, easily, and at any time or place, thereby enabling us to organize more events with more people. But at the same time, the mobile digital calendar obscures its true essence, which is its ability to increase the number of appointments without creating any “new time.” We can schedule more meetings but we are not more productive at those meetings, and we don’t get 15 extra minutes to ourselves after those meetings.

This phenomenological view owes a debt to Heidegger. Heidegger’s approach to technology (Heidegger & Lovitt, 1977) is to focus not on what it appears to be, but how it “enframes” the world. Technology reveals certain aspects of the world, while obscuring others. In Heidegger’s view, modern technology reveals to us a world that is ready to be used up as a resource, or as Heidegger called it “standing reserve.” A spreadsheet transmutes a forest into stacks of lumber. The environment becomes a resource and people become digits, lost in the lines of a spreadsheet. Time is a special category for Heidegger, one that is tied inextricably to the awareness of our own mortality (Heidegger, 1993). Technology enframes time and renders it too as a resource, something that can be “made” or “spent.” This transformation is significant in that it changes not only “how much” time we have, but our very existence. Heidegger points out the obscuring nature of time-reckoning technology specifically:

Today’s reckoning in sports, for instance, with tenths of second, in modern physics with millionths of seconds, does not mean that we have a keener

grasp of time, and thus gain time; such reckoning is on the contrary the surest way to lose essential time, and so to “have” always less time. Thought out more precisely: the growing loss of time is not caused by such a time reckoning -- rather, this time reckoning began at that moment when man suddenly became un-restful because he had no more time. That moment is the beginning of the modern age. (Heidegger, 1954, p. 101).

New technology shows us time we could not otherwise know, but it does not actually *create* new time. In Heidegger’s example, we can *reckon* tenths or hundredths of seconds, but we cannot “have” this time because we cannot cognitively know it in any meaningful sense. We have the ability to *track* tiny slice of time, but we have not somehow made it possible to *experience* these tiny slices meaningfully. We see this time and believe we can somehow “use” it, but we cannot use tenths much less hundredths of a second.

The mobile digital calendar performs a similar sleight of hand. We have the ability to *schedule* many more appointments, but we cannot meaningfully *experience* any more appointments or somehow do more things. We simply do not have the cognitive capability of adding more appointments without facing the inevitable diminishing returns on our attention. The mobile digital calendar gives us the ability to “manage” more appointments, but it does not change our human inability of being in two places at once. We still must plan, travel to, and reflect upon meetings. It *appears as if* we are somehow able to do more, in less time, with more people. The new ease with which we can schedule these meetings gives us the impression we can somehow “make time.” We cannot.

What we can do is elevate the expectations of how many appointments one can and should schedule. In my previous research (Ladner, 2008, 2009), I

studied web design works and the time regime under which they labour. Even in 2008, these workers were avid users of mobile digital calendars. They experienced what I called “ubiquitous availability.” Web designers reported they were routinely expected to be available for work-related inquiries outside of working hours – 90% of those I surveyed reported they were available for work during evening hours and 44% reported they were available *during the night* (Ladner, 2008). This research focused primarily on laptops and mobile phones. In the years since, the phenomenal growth of smartphones means that workers are now not only available by voice and text, but via email and via digital *networked* calendars.

The mobile digital calendar demands new labour, while at the same time fools us into thinking we are better organizing our time. Constant awareness of our calendars leads us to believe we are somehow better organizing our time. We are not “making” new time through the calendar; time is finite. In fact, we are diverting precious time toward the management of the calendar itself, thereby depleting the finite amount of time we started with. Smartphone users are constantly aware of how many appointments they every time they handle their phone. They carry their smartphones with them everywhere. They consult their smartphones to answer phone calls, texts, BBMs and emails, and thus are constantly interacting with their calendars. Were that not enough, the mobile digital calendar even calls attention to itself through event alarms, which are often set by default to chime 15 minutes before an event begins. The paper calendar user must make an effort to consult her calendar by glancing at the wall or pulling

out her FiloFax. The smartphone user, by contrast, can be informed of her time commitments, through these alarms, without ever having pulled out the phone. This makes it appear as though we have “made time.”

But no such quantum alchemy exists. We cannot “make time.” Indeed, having the mobile digital calendar invites us to spend time “pruning” our appointments. The calendar itself – which is always readily available – occupies an ever-greater share of our existing time. We use snippets of time on public transit to manage our calendars. We move around appointments while we wait at the doctor’s office. We check our calendar before we go to bed. But we are not spending more time planning the contents of our meetings or reflecting upon past meetings. We are moving around imaginary boxes of time on a symbolic plane.

And we are now increasingly expecting to fill that symbolic plane with ever more imaginary boxes of time. When a digital calendar day is so easily added to, the blank calendar day becomes an anomaly. It becomes unusual. The perception is that scheduled activities are the norm. When a full calendar is the norm, it becomes anomalous to have wide swaths of unscheduled time. Whether the smartphone user “obeys” her mobile digital calendar is irrelevant; she has symbolically committed to many activities. She feels busy. She looks at her calendar. She appears busy. This is the norm – to be busy. The mobile digital calendar gives a starring role to the practice of organizing time, and preferably to stuff life full of appointments.

But this new way of time reckoning is not fundamentally changing how we *experience* time. It is a simple calculus: more appointments take more time.

Those who obey the mobile digital calendar find themselves unable to commit full attention to every appointment. Too many things to do and too many people to meet inevitably result in fatigue. Lack of engagement and mindless busyness take the place of being present, engaged, and reflective. Booking appointments is easy – getting full attention of those present is next to impossible. These social actors mirror Charles Grodin’s character in “Taking Care of Business,” who finds himself overwhelmed and outsources all his working memory to his FiloFax, only to be caught completely adrift when he loses it. Others, unable to keep pace with the speed and ease of scheduling, return to a simple mental list of what to do and whom to meet. Using the mobile digital calendar in this case serves simply to remind oneself what is “officially” scheduled and what is “really” scheduled. The gap between the two is never far away, and these individuals may forever feel “behind” on what they have committed to doing. These individuals may forever feel like James Belushi in “Taking Care of Business,” who is constantly reminded of his own inadequacy and lack of preparedness.

In the final scenes of “Taking Care of Business,” Charles Grodin sees the error of his ways by constantly focusing on his FiloFax. In an effort to elude police, he dumps out the entire contents of his FiloFax and uses it to zipline out of a building and escape, along with James Belushi, to freedom. Notably, he keeps the leather case of the FiloFax and never throws it away. He symbolically deletes his appointments but cannot bring himself to rid himself of the container of time.

We can delete our appointments on our smartphones but have now created an entirely new symbolic plane. It is bottomless. It is ready to be filled

with innumerable imaginary boxes. Time is now contained on that symbolic plane, which we now carry with us, everywhere. We may choose to ignore these boxes, but we have already irreparably shifted the way in which we reckon time. Our “socially shared calendar” is now partially housed technologically, marking a significant turn in time reckoning. Our puny human brains cannot manage its constant, torrential flow. Technology, and its limitations, now necessarily shapes how we discern the passage of time.

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