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Transparency, openness and privacy among software professionals: discourses and practices surrounding use of the digital calendar

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Abstract

Research on the groupware calendar system (GCS) has sought to understand its situated use in workplace contexts, revealing insights around design, culture, and self-understanding. A critical look at how knowledge workers use the GCS, and conceptualize of this use, reveals often overlooked sociotechnical values that figure prominently in workers' lives. At a time when the public–private entanglement has become top-of-mind, this article adds to research on the GCS and professional subjectivity. It shows how organizational values circulate through use of the GCS and explores how hierarchy is negotiated on it, in part through design. It finds that senior-level workers are afforded opportunities to make their calendars private, while nonsenior workers are met with frustration when doing so. The article draws from a multi-sited ethnography, focusing on interviews with software workers in Canada. Findings suggest that the logistical functions of the GCS shape the affective dimensions related to its use.

Lay Summary

Within software workplaces in Canada, it is rare to meet a knowledge worker who does not regularly use a professional digital calendar. A common practice in software workplaces is for employees' calendars to be set to "open," so that the contents of workers' schedules are visible to one another. This article asks workers how they think about and use their calendars and examines how they manage them. It finds that, in software organizations, to exercise privacy in the form of a "closed" calendar is a choice shaped by positionality and organizational hierarchy. Interviewees commonly point to "transparency" as a reason for leaving their calendars open and report that calendar privacy was largely deserved by people with organizational seniority. Workers also convey various emotions about calendar practices and some express negative feelings toward nonsenior workers who use private calendars. Additionally, workers populate their calendars with personal events. Some find creative ways to hide what they are actually doing, and others want to display desirable social lives. Similar to some social media, the calendar can be a tool to perform the self. Calendar use in workplaces can also inadvertently entrench hierarchy and create exclusions.

Keywords: groupware calendar systems, workplace calendar use, transparency, privacy, digital calendar

The groupware calendar system (GCS) is commonly understood to be a productivity tool in organizations and a platform that makes visible employees' constructions of their time (Leshed & Sengers, 2011; Palen, 1999). Sociologist Wajcman (2019a, 2019b) has shown that the digital calendar is understood by many high-tech employees to be a window into their own "busyness" and thus productivity. While the cataloguing of time within calendars might appear neutral, it is in fact a sociotechnical practice that is situated within specific political, economic, cultural, and industrial contexts. This article investigates employee discourses about and practices with the digital calendar. It draws from empirical data to analyze an important yet often overlooked component of professional subjectivity, or the process of cultivating desirable ways of being, exemplified in an ideal subject. While research has explored subjectivity in relation to the calendar as a productivity tool (Gregg, 2018; Leshed & Sengers, 2011), the present article adds to this literature by examining how use of the GCS relates to workers' conceptions of time and self. It uncovers how organizational values are circulated through workers' use of the GCS and shows how hierarchy is negotiated on the platform.

Among studies of computer-mediated communication, research on use of the GCS has persisted for decades (Ehrlich, 1987a, 1987b; Eschler et al., 2015; Grimes & Brush, 2008; Jackson et al., 2011; Leshed & Sengers, 2011; Neustaedter et al., 2009; Palen, 1999; Schaub et al., 2014, 2013; Thayer et al., 2012). While some research focuses on specific calendar features in relation to design (Beard et al., 1990; Greif, 1984), this article can be located within studies that seek to understand the implications of design in relation to use within certain sociocultural contexts. The article contributes to this line of research by exposing the situated use of the GCS in professional settings among employees and imagining how this use might be taken into account in relation to the calendar's design and organizational practices (see Palen, 1999). The discussion shows that such considerations are not simply relevant for design nor practice in silos, but instead for work environments more broadly, and industrial values. The approach taken endeavors to facilitate design considerations by way of provocation (Sengers, 2005), and includes discussion of how studies of the GCS might inform organizational practices.

The article is divided into six additional sections. In the first, it examines the digital calendar's infrastructural affordances and theorizes how these influence usage as a precursor to the findings. The second section covers the method. The third and fourth sections consist of the empirical analysis and show how discourses and practices surrounding use of the

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GCS relate to professional subjectivity. Here, the article reveals a paradox through which those who use "open" calendars develop specific sociotechnical practices to gain privacy on the platform. Additionally, it shows how affect "sticks" (Ahmed, 2004), and comes to attach to certain employees, based on organizational hierarchies. It also assesses how calendar usage relates to the public–private entanglement. In the fifth and six sections, the empirical analysis is further theorized, and the significance of the findings is discussed, including implications for design and use of the GCS. The article shows that the sociotechnical affordances of the digital calendar, and the affects these evoke, hail specific subjectivities as "ideal," which employees negotiate from an uneven landscape. The logistical and organizational functions of this sociotechnical artifact play a prominent role in the affective dimensions implicated in its use. Throughout, "GCS" and "digital calendar" are used synonymously.

Affordances of the digital calendar

The professional digital calendar is imbued with a temporal logic referred to as "circumscribed time," or time that is "chunkable, single-purpose, linear, and ownable" (Mazmanian et al., 2015). The notion of circumscribed time is evident in what Wajcman (2019b) describes as the "matrix or grid architecture" of the digital calendar, which has been modeled on the spreadsheet. Circumscribed time is also manifest in the way digital calendars tend to show 30- or 60-min blocks or "chunks" of time that can be easily dragged to various slots (Erickson & Mazmanian, 2016). As a temporal logic embedded within the calendar platform, circumscribed time "tacitly defines a 'good' day as a 'full' day" (Mazmanian et al., 2015).

The digital calendar is a "logistical media, part of the infrastructure that configures arrangements among people and things" (Wajcman, 2019b). The calendar indeed affords a logistical function; that is, to plan and capture temporal and spatial arrangements of human and nonhuman actors (Jackson et al., 2011; Palen, 1999; Wajcman, 2019a). Yet, the practices that digital calendars encourage among the employees studied demonstrate that their function extends beyond mere ordering or timekeeping. Instead, the digital calendar can be understood to be an "evocative object" (Turkle, 2007). As argued in the discussion that follows, the calendar is evocative in that it plays a role in constituting employees' understandings and feelings about events, as well as their memories of them. As all too literal reminders (i.e., of events and to-dos), digital calendars serve logistical functions that in turn assist us in constituting ourselves as subjects and influence the meaning we make of social relations.

The calendar has also been described as a productivity tool that is foremost concerned with enabling the best and most efficient use of time (Leshed & Sengers, 2011; Wajcman, 2019a, 2019b). In this sense, digital calendars can be understood to be sites at which self-improvement discourses about time management collide. As time management tools, calendars are imbued with a fetishization of "time optimization" and reify the notion that to be productive with one's time is not only useful, it is also a moral imperative (Wajcman, 2019b). Scholars have long-exposed the moral undercurrents of productivity (Weber, 1930). As Leshed and Sengers (2011) argue, this imperative is so embedded in everyday life that productivity tools such as the calendar assist people in constituting themselves as productive and therefore valuable. Indeed, the performance of busyness demonstrates social importance and is often drawn on as a marker of status and prestige (Rattenbury et al., 2008). Adding to this literature, the present study seeks to demonstrate that the moral dimensions of calendar usage are also fractured along lines of organizational seniority.

Moreover, it is common practice for Silicon Valley tech companies to set the default professional calendar to "open" (Wajcman, 2019a). This institutional preference for calendar openness is implemented through an infrastructural discourse within the platform. As scholars demonstrate (Harmon & Mazmanian, 2013; Purpura et al., 2011; Sengers et al., 2005), the ways technologies are structured communicates certain discourses, which convey value systems. When a value such as openness is set within the technological infrastructure and visible on the platform, a discourse is circulated that suggests employees' (calendar) "openness" is valued at the organization. This infrastructural setting is simultaneously an institutional discourse that urges employees to keep their calendars "open." Through this setting, and the sociotechnical practices it encourages, although workers may choose whether to set their calendars to open or private, they are urged to be open through revealing aspects of their lives on the platform. In this context, if employees wish for their calendars to be "private," so that the contents of their schedules are not visible to others, they have to adjust their settings and diverge from the default. Thus, the default calendar setting encourages "open" as opposed to "private" calendars. If "habit is ideology in action" (Chun, 2016), then among software employees, "openness" is a habitual calendar practice that comes to represent the transparency of employees.

The calendar is also a technology that can facilitate always-on (Turkle, 2008) availability, a feature found to be highly desirable in various contemporary work settings (Mazmanian & Erickson, 2014). Paying attention to calendar practices, and discourse surrounding them, helps to reveal how a model of ubiquitous computing impinges upon workers, despite researchers' calls to shift from anytime/anywhere access and instead center workers' quality of life, satisfaction, and privacy (Dourish & Bell, 2011; Dourish et al., 2007; Leshed & Sengers, 2011; Mazmanian & Erickson, 2014). Furthermore, there is an aspect of the design of the calendar that relates to the public–private entanglement. Digital calendars commonly used at technology companies offer a view of the full day, rather than showing the conventional workday. This design choice communicates an institutional discourse about the parameters of the typical workday that now extend to all hours and also around the importance of filling many of these hours with scheduled activities, professional, or otherwise. Through this design, it is evident that aspects of the digital calendar reflect "persuasive computing" or architectural choices embedded in technology that nudge people toward certain behaviors (Mazmanian & Erickson, 2014; Purpura et al., 2011). When organizations make the default setting of the calendar open, and when the "full" day view is considered, the GCS is designed in a way that may persuade employees to fill the platform up, even with activities that take place outside the professional realm. These design choices intersect with the public–private entanglement as they reinforce the notion that even personal time should follow an ethic of busyness (Leshed & Sengers, 2011; Wajcman, 2019b).

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Filling calendars with even nonprofessional activities in hours commonly understood to exist outside of the conventional corporate workday is undergirded with the ideal that what is not useful is dispensable. As Ahmed (2019) argues in her critique of the theoretical underpinnings of use, to idle denotes ceasing to operate and connotes ceasing to *be*. This reading is particularly relevant for the digital calendar, which offers a canvas to catalog one's whereabouts and through which, if one is not scheduled to be doing something, then they are presumably doing nothing. In such a context, to be doing nothing is to be doing nothing of any use (Ahmed, 2019). What is "useful" here is busyness itself, which is recorded and placed on display. Indeed, personal and social activities are deemed useful to include in the professional calendar in part because the cataloguing of these events further extends the logic of productivity to the private sphere, enabling a display of the self as continuously busy and therefore useful. Showing the self to espouse the values of the sector in terms of creating efficiencies in daily life, and continuously learning and growing (i.e., becoming ever "better"), is highly valued as the logic of "optimization" remains entrenched in the construction of selfhood (Ciccone, 2021). In such a context, empty slots of time in the calendar, even during off-hours, can signify wasted time.

Method

Data collection

The present research took place in the software sector of Vancouver and Toronto, and this article analyzes empirical data collected over eight months in 2019. The research employed intensive participant observation and interviews at a software organization for four months, and also took place at two large-scale technology conferences, and multiple industry events. The timing of this research is significant, as it concluded several months before the COVID-19 pandemic would alter the experience of work for many. It provides a snapshot of the ways the workers studied were orienting toward time and self through their usage of the GCS. Although the study cannot be said to be broadly generalizable, it sheds light on the situated use of a common workplace technology, and uncovers the social life that can materialize through this use.

The interviewees studied are employees predominantly based within four career streams including software development, product management, sales, and consulting, all of which tend to be well-compensated in the sector. Overall, 75 interviews were conducted, including 22 formal and the rest informal. Interviews ranged from 25 to 120 minutes and were typically one hour. Of the formal interviews, 20 were conducted with people who had first been interviewed informally, meaning there were 55 unique interviewees. Interviewees were, approximately, evenly distributed throughout the aforementioned roles, with exceptions including people working in corporate finance, HR, and operations. Among formal interviewees, the majority (54%) were at the mid-level, followed by senior (32%) and junior (14%). Additionally, 23% were managers. In terms of self-reported demographics for these formal interviewees, there were approximately equal numbers of men and women, and a small minority were nonbinary; less than a quarter were racial minorities; about a third had children; and most were in their 20s and 30s. The organizational cultures of employees' workplaces varied, but tended to include use of the agile model of software production, and emphasized collaboration and adaptability.

Interviewees work at various companies and do not reflect any single field site. Multiple interviewees provided views of their calendars. In such instances, notes were made about how the calendars were being used, although images were not taken due to confidentiality concerns. Additionally, the participant observation informs the discussion, which enabled a view of the digital calendars of multiple employees. Again, the findings and discussion are not representative of any one site, but relate to knowledge workers within the software sector in Vancouver and Toronto. To protect confidentiality of the people and sites studied, pseudonyms have been assigned, and identifying details omitted or altered where necessary. All formal interviews have been transcribed and, with the field notes, coded and analyzed using NVivo.

This research is part of a larger study that focused on subjectivity and communication in professional settings. The interview questions that animated GCS-related aspects of the research included questions about calendar practices, workers' preferred calendar settings, and their reasoning for these preferences. Questions also prodded how the calendar was used, and whether interviewees placed personal events and appointments in the GCS. These questions were asked alongside a series of other questions about professional life in the industry, the work–home slippage, and remote work. The focus on the calendar within this broader study was an attempt to inquire about if and how usage of this technology figured in professional subjectivity.

Data analysis: process

The approach to analysis was inductive and the scope of the research narrowed as data were collected. Data analysis took place throughout the field work, which involved reading field notes and transcripts on an ongoing basis, developing and refining codes, and identifying preliminary themes. Considering the risks for interviewees, and the sites examined, it was necessary to omit identifying details. For this reason, a comprehensive overview of demographics is not provided. It is a limitation that this was not possible. Yet, the study draws connections between participants' accounts and their positionalities where possible.

Codes were identified based on theoretical interests and salient issues throughout the texts (Attride-Stirling, 2001). For formal interviews with verbatim transcriptions, discourse analysis was conducted. This enabled an assessment of what certain discourses *do* and how social actors orient to various contexts. The discourse analysis is grounded by cultural analysts who investigate tech and media usage alongside professional subjectivity (Gill, 2000, 1996; Gregg, 2018, 2011; Leshed & Sengers, 2011). Throughout, the study pays attention to reported feelings and draws from sociology of emotion and affect scholars who have challenged the assumption that emotions are private, asserting instead that they are cultural, shared, and "stick" in ways that are patterned (Ahmed, 2004; Hochschild, 1983).

Privacy, openness, and transparency: discourses of digital calendar usage

Interviewees report that the companies they work for set employees' default calendar settings to "open," and this was also observed during the ethnography that took place for this

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research. It is telling that Monica, a mid-level software developer who is a White woman, comments that she had not realized private calendars were an option, and it was not something she thought about. This employee also humorously adds that even if she wanted to change her calendar to private, she does not know how to administer this change. Yet, it is important to note that the distinction between "open" and "private" calendars is something of a misnomer. At the companies at which interviewees work, even calendars set to "private" still show the outline of schedules and thus "busyness." Using a "private" calendar means schedules remain visible as blocks of "busy" time, and there is no affordance for opting out of the visibility of busyness. Moreover, it remains possible for certain senior-level people within organizations to view the contents of even "private" calendars. Considering that, it is significant that nonopen calendars are constructed as "private." This dominant institutional construction imbues the discourse of calendar "privacy" with a lack of choice about maintaining a degree of visibility on the platform. This lack of choice is manifest both through the platform display that shows "busyness," and also through the potential for certain people to view the contents of "private" calendars.

The majority of employees report leaving professional calendars open, enabling anyone within their organizations to view their schedules. During interviews several employees show their calendars and, for others, calendars are viewed during participant observation. Most of these calendars are indeed set to open. Additionally, several interviewees report that making their calendar activity visible demonstrates that they are being open and, in doing so, conveys "transparency." Yet, such constructions of openness and transparency belie a more complex story.

"Overtly secretive" and managed visibilities: the paradox of transparency

"Transparency" is often spoken about by interviewees in relation to whether their professional digital calendars are set to "open" or "private," even across career streams. Jared, a mid-level software development employee who is a White man, notes that his calendar is intentionally public for his coworkers to see, and that he has "no reason to hide it—it's about transparency." Relatedly, Daniel, a mid-level data scientist who is a White man states, "I like people to know exactly what I'm doing." Additionally, Leslie, a mid-level customer success employee who is a woman of color remarks, "transparency is essential" and that she "wants people to know" what she's doing "all day." Finally, Kelsey, a junior-level consultant who is a White woman comments, "we are all a collaborative organization, and we're supposed to be transparent, it's one of our mandates." Thus, the use of open calendars is often constructed by interviewees as a means to convey their enactment of "transparency" within the organizations at which they work.

As some of these quotes indicate, employees often construct the use of private calendars as indicative of having something to hide. This dichotomy—that is, an open calendar as transparent and a private calendar as hiding—exposes that certain sociotechnical norms govern the ways the digital calendar is used and understood. These norms also help to shape employees' relational understandings of each other. For instance, among some interviewees, the calendar acts as a means to assess coworkers' characters and values. When asked about her calendar practices, Judith, a mid-level software developer who is a White woman notes, "Umm I've just had bad experiences with people who keep it private." Upon being asked about this she replies, "I don't know. It's like, people go out of their way to make everything private just sort of like they, are maybe like **needlessly secretive** or something." Additionally, a mid-senior-level product manager, Eric, who is a man of color, reports, "I have a very negative perception of people who make their calendar private." Moreover, Jared, the software developer quoted above states, "I think that it signifies maybe you're just **needlessly secretive** or something like that," and then adds "well it's all about transparency." These quotes reveal how, for several employees, practices around digital calendar settings offer information about the "transparency" of coworkers. Additionally, two of the employees quoted above both use the phrase "needlessly secretive" implying that there is something menacing or suspect about this practice of so-called privacy. "Secretive" suggests that employees who do not use open calendars are harboring a secret, while doing so "needlessly" implies that these people do not have a valid reason for this "privacy." Overall, employees who use "open" calendars are predominantly constructed by interviewees as transparent people.

When speaking about calendar privacy, multiple employees note a logistical purpose to leave calendars open. Namely, at workplaces that are open-concept in their spatial configurations, and at which meeting space is at a premium, the use of open calendars helps to ascertain how best to allocate meeting space. A mid-senior-level product manager who is a White woman, Claudia, states:

> When I'm booking meetings it's nice to be able to see people's calendars especially to match room size with number of people in the meeting. In terms of efficiency and consideration for meeting bookings it is easier for people to know.

This logistical reason for calendar openness has been identified by Wajcman (2019a) as common in Silicon Valley tech workplaces. Relatedly, Judith, mentioned above, describes private calendars as:

> Super annoying because you [can't] be like 'okay I need to book 30 people for this meeting and I see you have something like a coffee with so-and-so, can you move it?' [...] So I think there's like a logistical obvious reason for leaving it open, but also I feel like overtly secretive is not something that this industry really values and it's not something that I really value.

As the above quote demonstrates, the discourse of logistical necessity for open calendars tends to be bound to a construction of closed calendars as secretive. The quote also shows how an industrial discourse around "privacy" is interpellated by this employee. She makes a point of articulating that she holds the same value as her industry regarding the propensity to use an open calendar and the meaning that this implies. In doing so, she gestures toward the ideal subject in software who is open, efficient, and transparent with their life. Judith's comments also point to the affect that surrounds—and may stick to—discourses about and practices regarding calendar privacy. For Judith, use of the private calendar setting is felt

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as “super annoying,” and she connects this use to a broader industrial value around openness, which she herself espouses. From the selection of an “open” or “private” calendar setting to the ways employees decide to catalog events within calendars and the kinds of events they share, the calendar becomes a means to perform how employees take up certain industrial values. On the digital calendar, the self is performed in ways that convey transparency.

When pointing to the meeting space issue that open calendars are assumed to help mitigate, Judith uses an oxymoron to conceptualize people with private calendars. To be “overtly secretive” is to be obvious and careless about displaying the fact that one has secrets that require hiding. This sentiment was echoed by multiple interviewees, and the phrase “overtly secretive” reveals that they are not necessarily objecting to privacy, but instead to explicit displays of it. In a context in which the “ideal” software subject evokes a privileged positionality of a White, able-bodied, cisgender, North American man, employees who fall outside of this “ideal” may indeed have more to hide. In such a context, the discourse of transparency compels additional administration, and work on the self, to ensure that one appears transparent while managing the various aspects of their lives, which may at times be at odds.

In fact, most of the interviewees who use open calendars comment that there are certain events that they often set to private, showing that there are aspects of their schedules that they do not wish to share with coworkers and the organization. While individuals varied in terms of the events that they regularly set to private, these tended to be personal appointments, nonroutine health or medical appointments, and some social events. Furthermore, various other tactics are used to maintain privacy. These include mild concealment techniques, one of which is described by Jared, who exclusively uses his professional digital calendar, but only adds his personal events in vague terms. He describes having plans to meet Jeremy Smith for beers, and catalogs this in his calendar as “Beers with JS.” He says this enables him to maintain privacy while still being “open,” and that this is important since he is often meeting with people within the industry and does not want his workplace to know the specifics of these meetings. Similarly, Judith states that she keeps a separate personal and professional calendar and that if she has a personal event or appointment during working hours, she “might lie about it.” She states, “So if I had a therapist appointment I might say had a doctor’s appointment, if I had a job interview, which I did that, I might say a dentist appointment.”

What all of this demonstrates is that calendar openness, while touted as “transparency” about one’s schedule, is governed by a specific set of industrial norms that assist employees in obscuring how they spend their time, especially in relation to events external to their organizations. The paradox here is that although employees who keep private calendars are commonly thought of as “hiding” something or themselves, in fact those with open settings tend to use a strategic approach to calendar management. As part of their efforts to convey “transparency” employees make their calendars open, yet, they make only certain aspects of their schedules visible. In fact, how these visibilities are felt by coworkers can reveal how affect sticks based on seniority level, since not all employees who use private calendars are constructed as “hiding” or “secretive.”

Deserving privacy or hiding: how affect sticks in organizational hierarchies

Some interviewees point to organizational hierarchy as another “logistical” reason for the use of open calendars at their workplaces. Eric, mentioned previously, states that at the Vice President level and above calendar privacy makes sense because these employees “have sensitive things they’re doing.” Eric reveals a frequently noted assumption about calendar practices. That is, nonsenior-level employees who set their calendars to private are commonly described as “hiding” or “secretive,” whereas more senior-level people (i.e., senior managers and organizational leadership) are thought to have entirely justifiable reasons for such privacy. Additionally, some employees communicated strong negative feelings toward nonsenior-level people with private calendars. Tim, a junior-level consulting employee who is a White man states:

> I hate people who have private work calendars. Because I think people who have private work calendars don’t have anything to hide but want to make it look like they do. Except for the executive leadership team or leaders and managers who have to make certain things private.

The discourse about privacy and seniority entrenches the notion that private calendars are only acceptable for *certain* employees. Privacy at the senior level is seen as reasonable, yet, at other levels it is unacceptable and at odds with the ideal of transparency. Tim’s sentiments also begin to expose how affect “sticks” (Ahmed, 2004) to certain bodies through discourses and practices concerning calendar “privacy” and “openness.” Specifically, his statements show how negative affect such as hatred can become bound to nonmanagerial and more junior-level employees who, at times unwittingly, make their calendars private.

In fact, the violation of normative practices of calendar usage among nonsenior-level people evokes strong negative affect among some interviewees. Kelsey, the junior consultant previously quoted, elaborates on her reasons for keeping her calendar open:

> I don’t see the point of hiding what I’m up to [...] I can see at like higher levels of management you might want to hide that because there are meetings that are more sensitive. Like if you’re going to fire somebody. But for where I’m at there’s, I can’t even think of a reason why [I] would hide my calendar. If you are hiding your calendar and many people do I just think it’s so... I don’t know, I don’t know what the word is. It’s like so unnecessary and so self-important almost. Because it’s like why is your work so important that you need to hide it? [...] So unless you’re trying to get ahead and be like a snake and climb to the top in a very sneaky way, there’s no reason why you shouldn’t be sharing.

Kelsey’s assertions help center what the discourse about calendar secrecy communicates. Her comments expose digital calendars as platforms that, depending on the setting used, help facilitate employees’ reputations as transparent and trustworthy, or as secretive and hiding. Describing use of the private calendar setting as “unnecessary” and “self-important,” alongside the notion that privacy is legitimate only for higher-ranking workers, casts the privileges senior-level people have

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as justified and deserved. At organizations in which the most senior-level employees tend to fit into a largely homogenous group, this discourse also entrenches ideals of deservability in ways that align with normative structures.

Moreover, strong negative sentiments expressed toward nonsenior-level people with private calendars point to the embeddedness of tech platforms into everyday professional life. At the software companies where interviewees work, everyday digital practices communicate whether or not employees uphold certain values, in this case the value of transparency. Here, the negative affective textures to comments about the use of settings within calendars reveal these platforms to be anything but neutral. It is precisely their presumed neutrality, along with their pervasive presence, that make them ideal spaces for reifying inequitable power distributions, even within settings in which many employees are considerably privileged.

The digital calendar's affective entanglements

Public and private life

Most interviewees report using a separate professional and personal calendar, with a small subset who solely use their workplace calendars to manage their entire schedules. Some employees who manage separate personal and professional calendars report frequently switching between the two rather than syncing them, and suggest that this is often administratively burdensome and time-consuming. Yet, relying too heavily on the professional calendar creates a host of perceived risks regarding managing personal and professional life. Claudia, previously quoted, reports placing all daytime appointments in her work calendar. She states:

> [It's] terrible because things like doctors or dentist appointments over the years have been in my work calendar and then when you leave the workplace you can't remember when you had booked things.

While being exclusively reliant on the professional calendar may allow employees to avoid managing multiple calendars, it also brings drawbacks. The quote points to the calendar's role in encouraging the entanglement of public and private realms. In terms of the schedule-keeping afforded through the calendar, the overlap of personal events and activities into professional time can lead to scheduling mishaps. For instance, when one unexpectedly loses access to their professional calendar, this can lead to missed events in both spheres.

Other personal events that employees place in their calendars include domestic time during the workday. John is a mid-level consulting manager who is a White man with a child and spouse. From 3 to 6 p.m., John's GCS is blocked as "family time." He notes that he keeps the calendar "open" so that his coworkers are aware of his obligations and do not book this time. In doing so, John creates a boundary around personal and professional time that the GCS helps reinforce. Other interviewees did not make use of the GCS in this way, although some did note blocking time for daycare pick-up/drop-off. It is significant that John possesses privilege in the form of normative positionality, and he is also a manager. As more knowledge workers than ever are, in 2023, juggling work and home, or work *at* home, it is perhaps helpful to recall that most periods of time are, to some extent, both public and private (Zerubavel, 1981), especially for parents (Grimes & Brush, 2008). Yet, to what extent employees can claim time as private may be a matter of privilege.

John's case is interesting when compared against Jessica, a senior product leader and White woman who expresses frustration about her lack of control over her schedule. She reports blocking off time in her calendar for uninterrupted work. She states:

> People would just book over the work blocks, even when it says 'do not book.' So I'm like, 'well then, you don't get to decide what is and isn't important in my calendar.' So I changed it to private but the problem now is that it's full.

When Jessica's schedule was open, it was not enough for her to block time. Instead, her schedule had to be set to private so that people no longer had the capacity to view it and decide what to respect as a temporal boundary. Jessica reports that coworkers continued to send meeting requests even after her calendar became private. Jessica and John's cases show that maintaining open and private calendars is related to and felt in complex ways connected to hierarchy and positionality.

Employees' reports of at times blundering through calendar management expose that digital calendar practices are cultivated skillsets. It exemplifies what Wajcman (2019a) refers to as "calendar work," a type of "skilled labor," or a competency necessary to develop. As Wajcman (2019a) notes, such work is comparable to many self-tracking practices. The frequent usage of the GCS, and its affordances that facilitate comparisons to others, serve to encourage ongoing self-monitoring and governance.

Beyond logistical media: the social life of the digital calendar

Eric, quoted previously, speaks of the elite, "cool," adventurous subculture at his workplace and notes that his coworkers often talk about their extracurriculars in the office and post about them on social media. He states that in the past year he has reduced his social media usage because he did not like how it made him "and other people" feel. He described disliking that social media created "FOMO," meaning "fear of missing out." Eric stated that his absence on social media allowed him to be what he describes as "present," evoking a common discourse found in management-oriented self-improvement resources. Through the discourse about being "present," the problem is neither the phrenetic pace of life nor an unmanageable volume of work. It is instead employees' willingness to center themselves in the present moment and encounter time in a way that is focused and purposeful (Sharma, 2014). Yet, Eric also speaks of having a preoccupation with what he describes as "calendaring" and reports frequently checking coworkers' calendars to determine if there are meetings or social events that he is being excluded from. He notes that there is a "cool" group at his workplace much as there might be at "a high school." He states that these people often get together for after-work drinks, which is posted in their open calendars for all to see. It is notable that the practice of keeping open calendars can serve to reify workplace exclusions, as it makes clear who is included in and excluded from various events. Moreover, the sense of

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immediacy that the calendar affords may deepen felt affect about such exclusions.

Eric uses only his professional calendar, even for personal events, and states that he wants people to see when he is doing something "cool" or enviable. He talks about this humorously—he laughs at points and makes occasional jokes. Yet, he becomes serious when explaining that he feels excluded as a result of being left out of events that are visible in his coworkers' calendars. He also wonders, "if I were a White guy who played softball, would I be on the senior leadership team by now?" Eric outlines that informal relationships and recreational activities are important for advancement at his workplace, which was echoed by multiple interviewees working at various software companies. Eric states that he does not have these personal relationships with the people he works with. Thus, on the one hand, Eric suggests that he is largely off social media to avoid comparisons to others and, on the other hand, he is excessively "calendaring" to facilitate these comparisons. At the same time, in the context of in-person (i.e., offline) settings, he notes that he avoids conversations that relate too much to personal or social life. When asked why he uses his calendar this way, Eric comments:

> I almost think it's one of those things where it makes you seem more socially active when you have stuff in your calendar. Do you know what I mean? I'm like 'oh I hope someone sees that I'm going to this cool restaurant' [he laughs]. Because I see everyone else's. [...] I also think I like how like you can kind of know what's going on, and I mean it's **come to a point of like the negative social media for me** where I'll go in and be like 'oh why wasn't I invited to this meeting?' If and when I move on from [company] I probably will not be as into calendaring as I am here, but like it's just become kind of an obsession of mine here that's probably unhealthy now.

As Eric notes, for him the professional digital calendar emulates social media by facilitating continuous surveillance and comparisons between the self and others. He also alludes to the fact that "calendaring" involves a performative dimension through which it matters greatly what is visible within the open calendar. It is not enough to be busy with work or during conventional working hours. Instead, it is important to also be busy during nonwork time with personal activities, and especially with events deemed enviable in some way.

Eric's account corroborates Wajcman's (2019a) observation that the ethic of busyness is built into the calendar itself, which encourages "users" to fill blocks of time lest they be left with a square of empty space. Indeed, interviewees' accounts show how the professional digital calendar facilitates and encourages an "always-on, always-on-you" (Turkle, 2008) professional subjectivity, seeping into the private realm and made visible through a digital platform. This seepage is also encouraged by the calendar's affordances and can be situated within the broader entanglement of public and private life that has been exacerbated in recent decades. As noted, the design of the calendar offers a full-day view, rather than simply an eight-hour workday. This design choice nudges employees to fill up empty space, even when it represents time during hours outside of the typical workday. In fact, it is common for interviewees' calendars to be filled with a range of social, cultural, and wellness activities including fine dining, repeating workouts, concerts, golfing, regular visits to recreational clubs, and vacations. Regarding the latter, employees frequently indicate where they are going and for how long, e.g., "Taiwan, 7 days." Whether or not employees are taking part in their scheduled activities is somewhat beside the point. Instead, of importance is the open, performative element of "calendaring," which includes the display of nonprofessional events. This shows the calendar is less the neutral, logistical platform it is often constructed as in tech workplaces and instead has some similarities to social media.

Discussion

Constructions of and practices related to digital calendars reinforce the fallacy that workers are in control of their time. As productivity tools that center "time optimization," digital calendars circulate the idea that time-based productivity is both useful and good. Yet, affording a view of busyness and a lens into what is taking place are together constructed as "good" largely when one lacks the organizational status to legitimate more privacy. That nonsenior employees with private calendars were referred to in unfavorable terms during interviews, and that some of their coworkers reported even "hating" them for this practice, highlights these moral dimensions. One reason multiple employees may feel strongly about the refusal of open calendars is that, metaphorically, this is comparable to siphoning off one's own private area in the physical workspace. For junior employees, to use a private calendar is to make a claim to digital space in an area that is not one's own, and without the status to do so. Digital professional calendars are, after all, hosted on platforms that are owned, operated, and overseen by the institution.

Professional subjectivity and transparency

In conducting additional administrative work as part of the effort to convey transparency on the GCS, employees evoke what scholar Flyverbom (2016) refers to as "managed visibilities." Instead of accepting the transparency practices that some organizations compel as offerings of insight or clarity, Flyverbom (2016) argues that these are often forms of visibility management with paradoxical implications. Yet, to what extent employees make aspects of their lives visible, and manage these visibilities, is sutured to power structures.

Although a prominent aspect of calendar usage relates to the performative, this is not to suggest that interactions through the calendar do not reach employees' inner lives. In fact, the digital calendar is a medium through which employees construct themselves according to inter-relational norms in the organization. In the process of constructing oneself in the image of the organization, one also constructs their own self-understanding. In fact, one of the central social rewards for being a "good" professional subject through use of the open calendar is being understood to be "transparent" and thus trustworthy. Multiple interviewees negotiate this demand to be "transparent" through conveying negative affect toward those who use the private calendar. They also negotiate it through displaying robust social lives in professional and personal realms. On this point, the logic of transparency within organizations suggests that making information visible circumvents bad behavior from taking place (Flyverbom et al., 2015). Such logic also creates organization and industry-specific ideals around conduct (Flyverbom et al., 2015). As shown, individuals lower in organizational hierarchies are expected to conform to open calendar practices as indications

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of their trustworthiness. As they are not restricted from changing calendar settings, they are given "autonomy" with enacting or challenging these practices. Relatedly, employees are exhorted to understand this institutional logic as though it came to them autonomously, which is precisely what makes it powerful in terms of self-understanding. Scholars have demonstrated the power of organizational incitements for workers to autonomously manage themselves and their time (Hochschild, 2001).

Moreover, the ways mobile platforms are used can become integral aspects of professional subjectivity. In a study of mobile email usage among knowledge workers, certain practices "reaffirmed and enhanced these workers' sense of themselves as competent professionals" (Mazmanian et al., 2013). Displaying the self in ways compelled by the organization or industry impacts how people make sense of themselves and their lives (Hochschild, 1983). Eric, discussed previously, emulates this point. Priding himself on providing rapid responses to instant messages, Eric also sheepishly notes that this has become an issue at times in his personal life when he finds it difficult to resist responding to professional messages even when on vacation with family.

How employees interact with digital calendars reveals the extent to which the entanglement of public and private realms materializes on the platform. This entanglement is encouraged through a combination of social practices that become hegemonic, as well as affordances within the technological infrastructure. Furthermore, an aspect of the entanglement within the calendar is related to the constitution of the self. For Eric and several other interviewees, it was not enough to appear busy with work or during typical working hours. Instead, the performative dimension of busyness extends into the private realm.

The practice of including private and social activities in the calendar can be exclusionary, both because it places on display in-office exclusions as well as activities that illuminate multiple privileges. The very premise of a technology being used for purely logistical purposes can itself reify exclusions, as it reinforces the status quo through everyday happenings the platform makes more visible (Benjamin, 2019). Moreover, how employees are open about their daily routines through the calendar conveys the ideological underpinnings of transparency in the workplace. As an ideology related to professional subjectivity, "transparency" requires exposure of the "full" or "whole" self within the software workplace, which Turner has suggested is wholly undesirable (Lusoli & Turner, 2020). Yet, this exposure on the platform demonstrates one of the ways in which calendar practices "work" for employees. In capitalizing on the entanglement between public and private, the calendar affords an opportunity for employees to respond to a call in broader cultural discourses—especially those oriented toward self-improvement—to let the self "be seen." Meanwhile, employees respond to this call from an uneven landscape, and their position in the organizational hierarchy governs not only their usage of the calendar, but also their discursive and affective constructions of this use.

Pushing beyond the GCS as a productivity tool

The constructed common sense around open calendars, and the affect reported among interviewees for transgressions in normative calendar usage, bring to life Chun's (2016) assertion that media matter most when they become invisible. In making visible the constructed spatio-temporal coordinates of employees, the open digital calendar offers a sense of immediacy. As Tomlinson (2007) might say, it renders visible the gap between past and present, and here or there, and in doing so it provides a feeling of closing this gap. This visibility of individuals' locations in time affords felt nearness and brings to mind the continuous presence that has been noted as ideal and even necessary among knowledge workers (Mazmanian & Erickson, 2014). The calendar is also imbued with a sense of anticipation around what is happening and what might happen, and for this reason the proximity afforded can heighten feelings of exclusion from certain events.

Digital calendars provide individuals with a sense of control over their time and lives and have considerable logistical functions. They also offer a myriad of affective dimensions concerning the social context of the organization. Based on empirical research, and drawing from studies that highlight the affective and identity-based practices that the calendar has a role in (Gregg, 2018; Leshed & Sengers, 2011; Mazmanian et al., 2015; Wajcman, 2019b), this article has demonstrated that digital calendars enable affordances that share some similarities with social media usage. While the digital calendar is not a conventional social media platform, it has capacities that resemble those of social media. For instance, the GCS tends to enable scrolling through one's own and others' schedules. Social media are typically understood to be resources that afford the capacity to consume a continuous flow of information and the ability to focus on events they deem important (Chun, 2016). While the calendar does not depict how events are experienced as social media might, it does frame a series of temporal promises around the eventfulness of what has passed, what is to come, and where people can situate themselves in relation to these events. In doing so, the calendar acts as a powerful resource for making sense of the self. Scholars have exposed the identity work that takes shape through digital calendar usage, showing it to be a site through which the busyness orientation predominates (Leshed & Sengers, 2011). This orientation has been shown to be central in various professional and personal contexts (Darrah et al., 2007; Schor, 1993). Yet, the shared or group professional calendar also enables surveillance, not only by the self, but by employees and institutions. It encourages distinct engagements that go beyond the ethos of busyness.

The GCS in organizations: design provocations

How calendars were used and understood by interviewees in relation to their private and public lives sheds light on potential design interventions. A GCS that provides a view of hours for the standard workday, rather than the full day view, could help employees to manage the professional–personal bleed. Such a move may assist employees who are trying to maintain distinctions between professional and personal, and it may also help prevent overwork. Yet, for organizations with teams in various time zones, this may be challenging. In such cases, the design of the GCS could assist distributed teams through features that might better protect employees' time outside of the working hours they set.

The GCS design could also enable more flexibly managed views of professional and personal events (Thayer et al., 2012). An application compatible with the GCS could sync all calendars into a master, without allowing communication between them so that one's workplace does not have access to their personal calendar, and vice versa. While this would still require the use of multiple calendars, it could enable an

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overlay view rather than syncing, addressing some of the privacy concerns.

For organizations using the GCS, making the default calendar setting "private" could enable employees to continue to integrate personal and domestic tasks into their workdays as needed, with less fear of judgment among coworkers. For organizations, to use the private setting could also bring drawbacks regarding the logistical elements of calendaring, yet, these could be resolved by, for instance, creating "open" calendars for shared spaces within the organization, e.g., meeting rooms. While this relates more to organizational practice than GCS design, it is nonetheless an important aspect of the calendar's user experience. Overall, the design of privacy measures within and beyond the GCS must account for how employees' use of those measures will be interpreted within organizational dynamics.

Conclusion

If private calendars are constructed by some employees as "overtly secretive," then open calendars might be thought of as "covertly open." This is not an unabridged openness. Employees are not conspiring to use their calendars to achieve certain aims. Rather, calendars are sites of subjectivation that encourage employees to act, perform, and feel in ways that support, and occasionally challenge, the logic of organizational hierarchy. The way the calendar is designed means that empty calendar space is imbued with affective possibilities that enable and constrain certain feelings among users. This is precisely how the calendar facilitates subjectivation and makes its imprint on the inner lives of the employees studied. Digital calendars are "evocative" (Turkle, 2007) in that they help shape our feelings and understandings about various events, whether we take part or simply bear witness on the platform.

Even employees who reported exclusions through calendar practices also reported pride, happiness, and satisfaction in relation to their use of and interactions with the calendar. This is another aspect of how calendar practices come to "work" for employees and their workplaces. They offer some rewards and positive affect to employees, while shaping ways of being that conform to the organization. Calendar practices help to constitute "good" professional subjects through encouraging the acceptance and even embrace of one's place in the organizational hierarchy. The calendar choice of open or private exposes how one negotiates their own place within this hierarchy. Conveying strong feelings about (not) following these practices demonstrates how the rules governing calendar usage pertain to self-understanding. To "hate" nonsenior-level employees who use "private" calendars shows that some employees are interpellated through these sociotechnical affordances to feel and understand themselves, and their organizational counterparts, to be less deserving of "privacy" in the workplace.

Although researchers have offered insightful means to address privacy in calendar software (Schaub et al., 2014, 2013; Wascher et al., 2006), such interventions do not address the social meanings surrounding the desire for privacy in contexts that value "openness." This article has offered a critical empirical investigation of software employees' use of the GCS and has provided some early tactical interventions to address inequalities that materialize on the platform. Yet, it acknowledges that such interventions do little to target underlying societal inequities, aside from attempting to circumvent their power in organizational settings. The article has aimed to assist those working on design of the GCS by making connections between individual employees, organizational structures, and industrial values. Such an interrogation complexifies how to intervene at the level of design. It urges for more holistic interventions that push beyond solely examining the artifact to incorporating a view of organizational design and workplace practices. Envisioning how the GCS might be designed differently ultimately involves grappling with much larger questions, those that could pave the way for more inclusive workplace environments.

Data availability

Data cannot be shared for ethical/privacy reasons. The data underlying this article cannot be shared publicly due to ethical considerations described in the *Method* section. Some of the data may be shared on reasonable request to the author.

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