The agile self: How cultural imperatives in the software sector inform subjectivity

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DECLARATION

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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ABSTRACT

This dissertation investigates the professional subjectivities of people working in the Canadian software industry, alongside industrial discourses within the sector. It researches the ways in which professionals in software are called to manage themselves and their emotions, and documents how these calls materialize in workplace technologies. It shows how emotion management is compelled by expectations of professional settings, and broader industrial norms, and documents how employees negotiate these expectations and norms. As part of this research a multi-sited ethnography was conducted, including several months of participant observation and interviews at a software company, as well as large-scale conferences and smaller events. The dissertation centers how professional software settings draw from self-improvement discourses, asking what this achieves for organizations and individuals. It shows the ways employees are compelled to understand and manage their inner worlds and exposes how the broader values of the industry are negotiated through subjectivity, and within everyday professional contexts.

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Contents

Chapter 1

Introduction

On a rainy afternoon in Toronto, I met Jacob at a small café near the city's core. A consultant in the software industry, Jacob – a white, cisgender man in his thirties – had worked in the sector for several years, and had recently changed jobs. Over coffee and doughnuts, Jacob told me about his experience working as a consultant in the sector. He explained how he got into this kind of work, and gave me an overview of his typical day on the job. When I asked whether or not he felt he could be himself at work, Jacob remarked that this was one of the areas he was most excited about when he began working for the company he had just exited. He explained that the company purported to encourage its employees to be themselves at work. He stated, "Like this is what they say they care about, this is on their list of values." He later added, "the sentence that comes to mind is like, 'warts and all,'" referring to being able to expose one's flaws at work. The topic of being oneself at work came up again subsequently when I asked Jacob about his experience navigating the professional-personal line in his industry. He commented, "I guess for me I'm always driving to be that whole self at work, I'm not hiding from people in any way."

With these assertions, Jacob hit upon what I had found to be recurring features of the call to be oneself at software organizations, and in the broader industry. Often referred to by the industrial settings I researched as bringing the "full" or "whole" self to work, within this call is the notion that employees should be who they are at work, even if this means exposing some of their metaphorical "warts," as Jacob put it. While this may be a compelling idea, and can evidently be an effective recruitment tool as in the case of Jacob, the call to bring the full or whole self to work also assumes an entanglement of public and private realms through its suggestion that all aspects of oneself are welcome at work. This entanglement is, I assert, at the crux of the industry's exhortations for employees to conduct themselves in ways considered desirable. Relatedly, many of the employees I interviewed worked at software companies that encouraged bringing one's "full" or "whole" self to work and to the workplace. By the time I interviewed Jacob, which was

several months into my fieldwork, the notion that software companies celebrate bringing the full self to work was an industrial exhortation I had become accustomed to hearing.

Moreover, when I had asked Jacob how he defined being able to be himself at work, he pointed to "being able to bring emotion to work," and suggested that he found it somewhat challenging that, during his previous role, bringing emotion to work was not as accepted as he had hoped. Jacob went on to explain that he found it was necessary to be "more strategic" at work, and to either leave emotion out or tightly control it. Indeed, my research suggests that emotion work is a core component of taking up ways of being the software industry considers desirable. Part of the challenge that Jacob faced may be related to being tasked with taking up this work as part of a broader, flexible framework oriented towards *agility.*

Throughout my fieldwork, in contrast to a command-and-control model of employee conduct, I found that in the software industry, specific ways of being and related emotion management tended to be compelled in less direct ways. These included circulating expectations of employee conduct through a variety of industrial discourses and practices, which were embedded with specific values. A prominent aspect of these discourses involved self-improvement, and often centered the notion that the full or whole self should be seen at work. However, in an industry context in which the "ideal" subject is white, male, heterosexual, cisgender and able-bodied, I began to wonder if there may be a paradox embedded within the call to the full or whole self, and also within discourses that this call tended to be circulated within. After noting the predominance of self-improvement discourses within software, I was compelled to ask: how are self-improvement discourses constructed and negotiated by tech institutions and employees in the software sector, and with what consequences? This question allowed me to grapple with the ways in which employees were compelled to understand and manage their inner worlds, and how the broader values of the industry were negotiated through subjectivity. Although this was not the inquiry I began with when I initially embarked upon this research, my inductive approach enabled me to arrive this particular topic during my data collection process.

My fieldwork took place from January until August (inclusive) in 2019 within the software industries of Vancouver and Toronto, Canada. I conducted participant observation and interviews at a software organization, two large-scale tech conferences and multiple

smaller industry events. In the settings I researched, for employees to be their full or whole selves at work, while also attempting to embody an ideal subject, tended to be constructed as mutually beneficial for employees and for the software industry. Yet, the paradox is that one's full or whole self may not be synonymous with the ideal subject of software. Indeed, for many of the employees I interviewed – even those who fit the ideal in terms of positionality – this paradox could at times be felt as exclusionary and painful. Considering this, it becomes clearer that an aspect of what the interviewee Jacob may have been wrestling with was precisely this call to be his full or whole self, within an industry context that is consistently pointing to an ideal subject. Moreover, for Jacob, the notion of bringing the full self to work seemed to gesture towards the entanglement of public and private life that is so central to professional subjectivity in software, and in tech more broadly (English-Lueck 2010, 2017).

Part of what Jacob was alluding to during our interview was that while certain kinds of self-management and related emotional expression were valued in his previous workplace, others were not. This may seem an obvious point, yet, it warrants explication. Namely, in the face of self-improvement discourses that exhort employees to bring themselves to work "warts and all," as Jacob put it, the ways of being that are valued in the sector are often at odds with the notion of bringing the full self to work. Furthermore, in contrast to the popular media conception that software workplaces are unemotional or neutral, my research suggests that there is in fact a great deal of emotion work required for professionals in this sector, which echoes the findings of other scholars researching work in technology industries (English-Lueck 2010, 2017; Kelan 2008). Indeed, the cultures of professional settings of software, with their informality and the propensity to entangle public and private realms, can contribute to the challenges employees face in ascertaining exactly what ways of being, and related emotion work, are desirable.

To better understand how employees are exhorted to conduct themselves in professional settings of software, and how they respond to these calls, I theorize the entanglement of employees' public and private lives. I also ask how this entanglement relates to imperatives to be an "ideal" subject in the sector. Indeed, in the professional software settings I studied, the embedding of industrial values within everyday discourses, and their circulation within a variety of contexts, served as a central driver in the creation

of "feeling rules" (Hochschild 1983: 288). Such values could be found within executive speeches, conference presentations, training programs, employees' habitual practices around technology use, and even within broader organizational frameworks. I assert that the ubiquity of certain sectoral values in such varied contexts paves the way for their acceptance as common-sense within the industry. As I will argue in the chapters that follow, both transparency and optimization are constructed as "good" values to endorse in the settings I studied, and they were prominently featured within the agile model.

The discourses and practices of the agile model illustrate the reverberant power of one of the industry's most prominent organizational frameworks used by North American software companies in the 21st century. Within the agile organizational model, used by many software companies, developers participate in brief, daily "stand-up" meetings to share what they are working on for the day, what they achieved previously, and any challenges they are facing in this work (Ambler 2002; Grant & Russell 2020). The value of transparency is apparent within the agile model through these daily stand-ups, and is itself a form of optimization. That is, transparency about what employees are working on is constructed as good in part because it is taken to be an optimization of efforts – it is about maximizing outputs, reducing inefficiencies and, overall, making the best use of time. This everyday practice is also an example of displaying the self-direction that anthropologist Jan English-Lueck (2017) has noted as highly desirable within high-tech cultures of Silicon Valley.

In Canada, Silicon Valley continues to influence and shape the country's local tech sectors, especially in cities considered hubs for the industry. In Vancouver and Toronto, Silicon Valley's Bohemian counterculture, with its prominent focus upon self-improvement, encourages the entanglement of public and private life among employees in the sector. In fact, at a time in which digitization has translated to professional employees working more often and increasingly in remote capacities in their own domestic spaces, software companies have encouraged this entanglement in several ways that many other industries have not. Firstly, workplaces in this industry tend to celebrate a social informality that gestures toward non-professional social relations and spaces. This informality permeates employees' day-to-day practices, and in doing so it challenges conventional conceptions of what it means to be professional in the workplace. Secondly, many workplaces in the

industry encourage a playfulness, and play itself, which can be found in the spatial arrangements and physical structures of the workplace. For instance, at the professional workplaces of multiple tech giants, the focus on play can be noted in arcade-style game rooms, break-out jam areas equipped with musical instruments, and campus-style cafeterias. All of this is offered to make the workplace enjoyable, and to make it feel less like work, which encourages working more often. The third way in which this industry has encouraged the public-private entanglement again relates to enticing employees to work for longer periods. Software companies commonly offer complementary wellness services and domestic labour to their salaried staff. From free or highly discounted meals and massages, to dry-cleaning services and nap rooms, such offerings gesture toward realms of life that have typically been situated outside of the workplaces of salaried professionals. These services have conventionally been looked after in personal realms and, in the male-dominated, heteronormative industry of tech, by (predominantly female) spouses (Sharma 2018). For professional tech employees, such services are also commonly offloaded to paid domestic workers. The displacement of domestic labour to the institution itself speaks to how the dynamic culture of productivity in tech workplaces encourages the melding of private and public realms. Additionally, in a workplace and industry context in which styles of dress, speech, and interaction are all more colloquial than in many other corporate sectors, the affective-emotional ways of being that are valued in these settings cannot be disconnected from the sector's informality. In fact, this informality figures prominently within the industry's emotional exhortations for employees to conduct themselves in specific ways.

It should be noted that I understand emotion to be permeable to cultural influence, but still as that which has a bodily orientation and a signal function. That is, emotion signals the "inner perspective" we apply in our day-to-day lives (Hochschild 1983: 30). To suggest techniques to change feeling is, in part, about intervening in what sociologist Arlie Russell Hochschild (1983: 30) refers to as the "signal function of feeling." This intervention in the signal function is in part why self-improvement discourses are so powerful. Such discourses exhort employees to not simply conduct themselves in ways beneficial to the organization and industry, but also to *feel* in specific ways. Considering the aforementioned

entanglement, for a place of work to intervene in the signal function is to impinge upon feeling rules in the private realm as well.

Relatedly, work remains a core facet of identity for knowledge workers (Gregg 2018), and researchers have shown that they tend to orient towards it with a romantic sensibility that involves feelings of intimacy for working (Gregg 2011), and at times passion for the work itself (Duffy 2017, 2016). Romancing both work and working are orientations that are particularly apparent in the technology sector, in which work has been theorized as a "center of discourse" (English-Lueck 2017: 25). English-Lueck (2017: 25) explains that during her ethnography of high-tech knowledge workers in Silicon Valley, regardless of what she asked them about, the conversation would inevitably be directed back to work. She states, "in our fieldwork, if we asked about technologies, we would end up hearing about work. If we asked about family, we heard about work. Work is a center of discourse. Work matters and workplaces matter" (English-Lueck 2017: 25). Moreover, within Silicon Valley, planning, self-direction and technical acumen are "deeply valued" and "embody part of the intangible emotional toolkit that is associated with technological saturation" (English-Lueck 2017: 77).

The work identity evident in Silicon Valley is significant in Canadian contexts, given that Silicon Valley culture has been exported well beyond the sector (English-Lueck 2010; Streeter 2015), and is especially influential in smaller markets that are attempting to emulate it. Indeed, Vancouver has been referred to as the "Silicon Valley of the north" (Lusoli & Turner 2020), and Toronto has been referred to in mainstream business media as a "heavy hitting global tech hub" (Snobar 2020). In addition, Toronto has ranked highest for tech talent in Canada, and fourth globally after only the San Francisco Bay Area, Washington and Seattle (CBRE 2020). In high-tech sectors strongly influenced by Silicon Valley, the emphasis on planning, passion for work and working, and self-direction – versions of which have been referred to as "romantic individualism" (Streeter 2015) – are part of what make industrial exhortations to improve the self so compelling to employees.

Moreover, I assert that the sector applies a great deal of flexibility with its exhortations for employees to improve themselves, and concerning the discourses and practices that become popularized. Practices to cultivate self-improvement in Silicon Valley that have gained recent attention include the use of cryotherapy pods, or basins filled with

ice that have been said to make bathers live longer and also work harder and for longer hours (Bowles 2019; Yee 2018). In an industry context in which work is constructed as a central facet of one's professional and personal identity, through self-improvement practices such as cryotherapy, and also less extreme methods, the aforementioned "signal function" is inevitably implicated.

In Canada, enthusiasm for cultivating a work identity and committing to self-improvement is unfolding against the growth of the software industry. In the Canadian economy, software is part of the broader information and communications technology (ICT) sector, which contributed more than $94 billion in GDP in 2019, with revenues that reached $210 billion that year. Innovation, Science, and Economic Development (ISED) Canada (2019) states that ICT workers' earnings are 50 per cent higher than the average "across the economy." Software and computer services – which include software publishers, computer systems design, data processing, and electronic and precision equipment repair and maintenance – make up approximately 39,000 of the 43,200 companies within this sector (ISED Canada 2019). The vast majority of these are small companies (ISED Canada 2019). Moreover, since 2013 the ICT sector has experienced stronger annual growth than the total economy consistently. In fact, the ICT sector as a whole grew by 4.8 per cent in 2019, with software and computer services expanding by 7.2 per cent (ISED Canada 2019). This compares to the overall Canadian economic growth of 1.5 per cent (ISED Canada 2019). Interestingly, despite the well-known trope of the software genius who drops out of university and still has a successful software career, in Canada 62.2 per cent of the people employed within software and computer services have a university degree (ISED Canada 2019). This accounts for the largest proportion of university educated workers within the broader ICT sector. Furthermore, the people within this sub-sector earn an average of $88,112 annually, compared to $82,000 in the broader ICT industry (ISED Canada 2019). The economy-wide average is $53,482.

Moreover, professionals of well-compensated, highly desired career streams within software are pertinent individuals to focus on for an investigation of professional subjectivity. As sociologist Ruha Benjamin (2019) has argued, attending to everyday discourse in the workplaces of the tech sector can uncover important aspects of how structural inequities and related discrimination becomes coded into technologies. Not only

do professional software employees influence the values that become inscribed within online platforms (Benjamin 2019; Crawford 2016; Noble 2018), they also belong to an esteemed demographic of middle and upper-middle class professionals. This demographic holds symbolic power, and is often held up as a leader to emulate in political and media discourses, reifying meritocratic ideals (Lamont 2019). A study of professional subjectivity among this group helps to reveal important aspects of the culture and values that structure an industry that is increasingly embedded in everyday life.

In software, as in many other professional settings, power materializes not through explicit coercion, but via softer means that engage subjects to willingly and enthusiastically participate in taking up ways of being that are beneficial to organizations and the broader industry. As in other corporate professional settings, the expression of anger, as the antithesis of happiness, almost automatically disqualifies a speaker's claim, particularly when uttered by those lower in corporate hierarchies (Cabanas & Illouz 2019). At the same time, when no issue is too large, complex or egregious to warrant a display of anger in the workplace, then much critique gets subsumed into a banner of professional competence. This orientation towards critique has powerful influence over the ways in which negative affect is felt and expressed in the workplace, since organizational success rests on the willingness of employees to continuously orient towards organizational harmony (Cabanas & Illouz 2019; Chiapello & Boltanski 2018; Illouz 2007). In software, as in a vast range of industries, the centering of organizational harmony can be said to both marginalize and suppress the expression of emotions that might have otherwise had political effects (Illouz 2007).

Furthermore, among professionals working in high-tech settings, conflicts of everyday life tend to be confronted with a "social engineering" ethos (English-Lueck 2017: 78). At the heart of this ethos is the notion that with a thorough and systematic approach, no conflict is too big or small to be easily solved and, increasingly, optimized. What this ethos exposes is that productivity logics increasingly structure ways of being – including thinking, feeling, and conduct – for tech workers. This problem-solution approach can be noted in popularized trends from recent years such as lifehacking. As part of lifehacking, everyday aspects of life such as eating meals are "hacked" to reduce the time, effort and resources needed for them. Here, we can see that the predominance of understanding

productivity as "good" can be noted even in how software employees conceptualize aspects of life typically understood to be distinct from work. While this prioritization of productivity in both public and private realms is by no means exclusive to software professionals, attention to how this esteemed group constructs productivity is illuminating for what it tells us about industry culture and its affective exhortations.

The present dissertation is a story of how software organizations tap into certain emotional registers that, culturally, already exist. My aim is to critically interrogate what organizational and industrial discourses in the software industry do, and the conduct they compel among employees. That being said, this is not a judgment on the moral worth of these discourses. Rather, my examination involves a centering of the prominent role played by self-improvement discourses in various facets of employees' lives.

I should note that throughout this dissertation I use the word "employee" rather than "worker." This is to signify that the vast majority of those I interviewed were indeed full-time, permanent employees and thus in a more secure employment position than the more all-encompassing and inclusive "worker." Moreover, this research investigates those who are privileged in the sense that they typically have well-paid and permanent employment in North American companies in a sector that is often glamorized in popular media. That being said, the majority of the people I interviewed are not c-suite executives. These are not the people ultimately deciding the direction of companies, nor steering the industry in particular ways. Many of them are also *not* privileged within the sector on the basis of race, class, gender, gender identity, sexual orientation, disability status, and at the intersections of these categories.

I proceed with six chapters. In the second chapter, I delve deeper into the significance of self-improvement discourses in the software sector, and provide an overview of my theoretical framework and literature review. This chapter outlines how I define self-improvement discourses, as well as the theories of affect, emotion and discourse that I draw from. It provides additional background on the software sector in Canada, and situates it within the context of neoliberalism. Next, the third chapter provides an overview of the method including ethical considerations, barriers and limitations of the study. In the fourth chapter, I turn to my empirical work and theorize the discursive meanings embedded within the aforementioned agile model. I first provide a brief overview of what

the agile model is and how it has emerged in software production. Subsequently, I analyze a set of key texts that inform contemporary agile organizational discourses. I identify four central dimensions that constitute the imperative to be agile, and delineate the parameters of the "ideal" agile subject in relation to these dimensions. In assessing the agile model as a discursive formation, this fourth chapter focuses upon aspects of culture within North American software production. It shows that the agile model calls forth specific ways of understanding, feeling and expressing, within a flexible framework that informs how those working in and beyond software make sense of their professional selves.

The two following empirical chapters draw from fieldwork data and investigate professional subjectivity against industrial imperatives including that of agility. The fifth chapter assesses employees' constructions of their own productivity.[i] I suggest that the ways in which employees understand and feel about their productivity says a great deal about how power is negotiated within everyday professional tech settings of neoliberal societies. My findings suggest that optimization is emerging as a technology of self among the individuals I studied. In the sixth chapter, I explore how the employees I interviewed understood transparency as an organizational and industrial value through their use of the shared, professional digital calendar.[ii] In this chapter I firstly examine how the digital calendar's infrastructural affordances influence its usage, secondly discuss the practices with and discourses about "open" and "private" digital calendars among employees, and thirdly explore how the professional calendar's usage relates to the entanglement between public and private realms. Throughout, I suggest 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. In the seventh chapter, I conclude by connecting the threads of each of the empirical chapters.

Chapter 2

Literature Review: The road to agile selves

Introduction

The software sector has been long critiqued for presenting an image of neutrality. Although software production is often constructed by the industry as a neutral endeavour, much research has exposed the fractures within such constructions. For instance, in her interrogation of how search engines yield specific results, scholar Safiya Noble (2013) shows that the ways in which search algorithms are constructed can reproduce racism and misogyny. Noble (2013) notes that until 2012, entering the keywords "black girls" in Google yielded pornographic pages as the primary sources of information, which the company later adjusted after public criticism by altering the algorithm. Noble's (2013) research helps to expose how discriminatory depictions of gender and race can be traced back to the people configure, select and input data. Similarly, scholars Rena Bivens and Oliver Haimson (2016) have shown that online platforms restrict how "users" are able to represent themselves as gendered, often offering binary categories only, and limiting the ways that advertisers can target people by gender. While much important research focuses upon how various forms of discrimination come to be coded into online platforms, the present dissertation focuses on professional cultures. Understanding the ways in which employees who work at software companies are called to orient by their organizations and industries, and ascertaining how they respond to these calls, offers a less researched aspect of power and hierarchies in professional software settings. Such an interrogation helps to expose how power is produced at an individual level, while grappling with how specific values related to self-understanding are connected to industrial aims. In gaining a better understanding of how workforces are compelled to orient, we can begin to grasp how so-called technical choices – that is, those that relate to building online products in particular ways – are justified in part through industry logics related to self-understanding.

Furthermore, emotion is central to the ways in which employees make sense of themselves according to industrial logics. It has been largely accepted that professional cultures have affective-emotional facets (Cabanas & Illouz 2019; Gregg 2011). Considering that, the present dissertation seeks to ascertain some of the ways that industrial cultures of software call employees to orient. It centers how a technical and presumed neutral domain is loaded with discourses that exhort employees to be and feel in specific ways. To this end, in the present chapter I discuss the literature I draw from to investigate values found in agile as a dominant organizational model, as well as in conceptualizations of productivity, and in technology use. Throughout this dissertation I assess how the agile organizational model acts as a framework for holding together multiple values that relate to certain ways of being and feeling rules. This dissertation asks: how are self-improvement discourses constructed and negotiated by tech institutions (i.e. workplaces, conferences and industry events) and by employees in the software sector, and with what consequences? What is there for the software industry to gain in terms of hailing its employees to be agile? Furthermore, what has facilitated the hegemonic status of agility in professional settings of the software industry? I assert that agile, as an industrial-organizational discourse in the software sector, encourages the entanglement of public and private realms among employees, shaping their self-understandings and creating professional cultures that increasingly encroach into private life. In fact, the coalescing of private and public that has become commonplace in workplace cultures of the industry is a legacy of Silicon Valley counterculture that dates back to the WWII era, which I discuss in the subsequent section.

I situate my study within five key debates and areas of scholarship. Firstly, I draw from sociology of emotion studies, in particular, focusing on research that investigates subjectivity in the workplace, and self-improvement oriented management discourses (Cabanas & Illouz 2018; Chiapello & Boltanski 2018; Gregg 2011, 2018; Hochschild 1983, 1994; Illouz 2007, 2008; Sharma 2014; Swan 2008). The ethnographic studies in this area make their object the emotional ways of being found within organizational and industrial contexts. Such studies have asked what organizations and industries compel of workers emotionally and affectively, how people in turn respond, and what consequences this emotion work has on their lives and self-understandings. Meanwhile, the studies that interrogate specific managerial discourses help to locate desirable emotional ways of being

(i.e. those considered desirable by industries) within broader cultural frameworks, and political economic imperatives. The second key area I draw from focuses on cultural studies of subjectivity, especially those that center affect and discourse (Ahmed 2004; Foucault 2008, 1988; Gill 2014; Gill & Donaghue 2016; Gill & Kanai 2018; Gill, Kelan & Scharff 2017; Scharff 2011, 2017; Hochschild 1994, 1997, 2003, 2012; Rose 1992, 1998; Wetherell 2012, 2013). Specifically, I turn to this research to theorize the relation between industrial culture and employees' reported feelings. Drawing from this literature allows me to understand the ways in which individuals are agentic, while locating their agency within industrial norms as well as structures of power including capitalism, white supremacy and heteropatriarchy. These studies also help me to theorize the relation between affect and discourse. Thirdly, I draw from literature that critiques neoliberal rationality and the psychological and psychic facets of neoliberalism (Cabanas & Illouz 2019; Ehrenreich 2010; Gill & Orgad 2015, 2017, 2018; Scharff 2016, 2017; Walkerdine & Bansel 2010). This literature is closely related to the aforementioned research on subjectivity and includes critiques of cultural discourses of self-improvement that center happiness, positivity, resilience and entrepreneurialism. It investigates the ways in which cultural discourses bear down upon the self and shows what such discourses compel of individual subjects. Fourthly, I draw from science and technology studies (STS), focusing on research that centers technology use within workplace and other professional contexts for knowledge workers (English-Lueck 2010, 2017; Wajcman 2014, 2019a, 2019b). Here, I also pull from studies that center the imaginaries surrounding and embedded within these technologies, and also in software's professional settings more broadly (Ames et al 2015; Benjamin 2019; Chun 2016; Dunbar-Hester 2016; English-Lueck 2010, 2017; Mansell 2013; Wajcman 2014, 2019a). This literature allows me to better analyze and theorize the ways in which the employees I studied understood and felt about their use of workplace technologies, and how this relates to subjectivity. Fifthly and finally, I draw from workplace and organizational studies centered on knowledge workers, including those that focus upon technology use, industrial values, and subjectivity (Brown & Kelan 2020; Erickson & Mazmanian 2016; Flyverbom et al 2015; Flyverbom 2016; Gregg & Kneese 2020; Kelan 2008; Mazmanian et al 2015; Mazmanian et al 2013). Although not all of these studies focus on high-tech sectors, they nonetheless assist me in conceptualizing the processes through

which industrial and organizational values are taken up as core facets of subjectivity in "white-collar" professional settings. Below, I show how the software sector intersects with self-improvement.

Self-improvement in Silicon Valley, and the public-private entanglement

Self-improvement discourses in Silicon Valley derive from a tradition that can be traced back to the Second World War. Communication scholar Fred Turner (2006; 2020) notes that, among military researchers in this era, the culture was flexible, open and loose. These military scientists, who were conducting research for the war, lived communally along with their families. There was little private space from other families, and there was also a dearth of clear boundaries between professions among the researchers themselves (Lusoli & Turner 2020; Turner 2006). The central preoccupation was to win the war, and the social and cultural norms of this group took shape around this aim. While the scientists and their families left the communes after the war, the spirit of openness, flexibility and collaboration endured. In the 1960s, the open ethos, albeit subject to constant adaptation, rose again to prominence with the commune movement advocated by Stewart Brand and made popular in the pages of his Whole Earth Catalogue, an American countercultural magazine first launched in 1968 (Turner 2006). Brand, and the New Communalists group to which he belonged, used the Catalogue to push collaborative work and techno-scientific advancement. They promoted the notion that shared culture – and indeed shared consciousness – could be cultivated through technological advancement, of which self-expression and inspiration were prominent aspects (Turner 2006). It was common for proponents of this culture to focus upon self-improvement, whether by employing measures to become increasingly productive and/or to inspire the self. Doing so was imagined as that which would lead to further technological advancements. Furthermore, the New Communalists enacted their shared consciousness, and the entanglement they sought, in part by repudiating bureaucracy and positioning it as an impediment, if not anathema, to their techno-centric vision (Turner 2006). Thus, taking inspiration from the WWII-era scientists who lived and worked communally, Brand's New Communalists would

promote openness as a replacement for bureaucracy in the spirit of advancement, efficiency and shared culture (Turner 2006).

In fact, the shared culture being sought within the WWII communes, and emulated by the New Communalists, was envisioned as apolitical and thus beneficial to everyone. As Turner (2006) points out, the WWII-era communes were predominantly white, middle and upper-middle class, and the culture orbited around the male scientists themselves. This "shared culture" that was constructed as apolitical was in fact inhabited by a largely homogenous and privileged group. The fact that Brand was exporting *this* WWII era culture among military scientists and promoting it as part of a countercultural vision both for the web and for work in tech is an important aspect of the history of software production.

The very notion of a self-proclaimed apolitical setting – one that aims to cultivate shared culture and consciousness – is deeply ironic, and has implications for today's exclusions in software and in tech more broadly. For one, Turner (2006) notes that living in the communes was miserable. Yet, more importantly, the idea of living communally, openly, flexibly, loosely and collaboratively has military roots, and valorizes a militaristic setting as a good model of working and living. In other words, the so-called playful culture of the software industry has roots in efforts to win a war, a fact that gives new meaning to contemporary idioms used in professional settings, such as "blow shit up." Moreover, the shift away from bureaucracy gives rise to new hierarchies and related exclusions that a culture of openness purports to eschew. These exclusions and hierarchies, which are in no short supply today in the software industry, carry over the exclusions of the New Communalists. As Turner notes, "the kind of collaborative open culture that we associate with the early internet comes from counterculture that brings with it a set of prejudices that still haunt us today" (Lusoli & Turner 2020: 237). The devaluing of bureaucracy can be noted in multiple facets of software companies' culture and operations, from the nebulously hierarchical team structures, to the informal processes for career advancement, and the prioritization of speed in decision making. Each of these facets of software organizations' culture and operations are also implicated in contemporary exclusions within the sector (Noble 2018; Ullman 1997, 2017; Wajcman 2014).

Therapeutic discourse in professional settings

Silicon Valley's countercultural vision is evident in software, yet, it is also a vision that shares characteristics with many other industries. In fact, Chiapello and Boltanski (2018) have shown that in the dominant managerial thought that informs the organization and cultures of many North American corporations, the shift away from bureaucracy and clear hierarchies was not simply exported to tech, but to professional settings more broadly. Management texts of the 1990s encouraged corporate executives to act as leaders who could inspire workers to conduct themselves in certain ways, rather than dictating that they do so (Chiapello & Boltanski 2018). In addition, managerial discourses of the 1990s began to tap into therapeutic ideas. In fact, at this time, even outside of the realm of professional life, the institution of therapy was vastly proliferating in North American society (Silva 2015). As sociologist Jennifer Silva (2015) has shown, at a time of changing norms around labour, with the secure full-time job dissipating for many, workers increasingly turned to the ethos of therapy to make sense of their lives.

The therapeutic discourse can be identified as a cultural formation through best-selling self-help books, on the Oprah Winfrey Network, in the context of some therapy itself, and also in the professional workplace (Illouz 2007, 2008). This discourse provides a blueprint for self-transformation. In place of traditional models of selfhood once structured by religious, employment, and gender norms, the therapeutic discourse provides an inner-directed self, preoccupied with its own emotional and psychic development (Silva 2015). This self is individually negotiated and continually reinvented. While the therapeutic discourse takes multiple forms, a defining feature of it is that one's own individual past predominates and, in doing so, it obscures what Silva (2015: 21) refers to as "the shaping power of the market present." In other words, the therapeutic discourse taps into the neoliberal ideal that individuals are solely responsible for their economic, social and emotional fates. Many management discourses have capitalized on, and encouraged, constructing the self according to the ethos of therapy. They have done so through conceptualizing of one's career as a deep-rooted aspect of the self, about which one should derive personal fulfillment (Chiapello & Boltanski 2018; Gregg 2011, 2018; Rose 1998). Such discourses also render the organization a key site through which self-understanding

takes place (Gregg 2018). In tech in particular, undergirded with logics of optimizing processes and the self, the therapeutic ideas that tend to be taken up are those centered on continuously improving, and adapting in response to change. While self-improvement is distinct from the therapeutic, these domains are tightly connected. Indeed, much therapeutic discourse centers the quest to improve the self. To better grasp the significance of self-improvement in Silicon Valley, it is useful to turn, in greater depth, to an understanding of the Bohemian culture that informs it. Doing so helps to expose why self-improvement in software is so strongly linked to the concept of openness.

Self-improvement and openness in software

In Silicon Valley Bohemia, the emphasis on shared consciousness and culture, with its centering of openness and collaboration, is constructed as inspirational and emancipatory (Turner 2006). In tech workplaces of Silicon Valley, shared consciousness manifests in open spaces where people can see what each other are doing, and where in many cases even senior executives share the same space and desks as junior-level people. While the Bohemian centering of openness may instill workplace collaboration, the notion that this is always good as organizational discourse and praxis is dubious.

Turner (2009: 91) describes the traditional characteristics of the Bohemian culture that informs Silicon Valley as being marked by "collaborative commons, visibility, subsidy, project labour and the fused pursuit of self-improvement, craft and reputation." In the Bohemian culture that Silicon Valley draws from, one's craft is imagined as being linked to their engagement with self-improvement, as mutually beneficial pursuits. Moreover, the visibility of this "fused pursuit," facilitated in part by the openness of communal spaces, enables others to see how one works and to what extent one is working. Indeed, Turner (2018: 61) notes that companies such as Facebook encourage their workers to imagine themselves as artists of their own lives, in addition to being artists of their craft. As part of this call, they are exhorted to bring their inner selves to their work and workplaces (Turner 2018). At Facebook as elsewhere, openness is not only constructed as enabling collaboration, it is also related to the visibility of continuously improving the self.

The culture of openness, inspiration and self-improvement that is so characteristic of Silicon Valley companies is also evident at Burning Man, an annual event that attracts thousands of knowledge workers, many from tech, to collaborate in the expansive Black Rock Desert of Nevada to build and take in works of art (Turner 2009). Attendees take part in Burning Man for personal and professional reasons, often with the expectation that doing so will expand their networks in ways that may facilitate professional opportunities, while simultaneously offering a means to inspire and improve the self (Turner 2009). Silicon Valley elite commonly take part in the event and, in fact, Google has even decorated its offices with images of Burning Man (Turner 2009). The Burning Man event is an example of how the New Communalists' values continue to influence the Silicon Valley community, since this event has historically been so well-attended by – and indeed celebrated within – Silicon Valley's tech sector (Turner 2009). At Burning Man as at the aforementioned offices of Facebook, the people and spaces that are "open" are considered "good." At the same time, as mentioned previously, the supplanting of bureaucracy with openness, although constructed as good, can break down rules and formalities that bring forth implications for sectoral inequities.

Overall, the 1960s Bohemian counterculture – in particular its emphasis on self-improvement via the blurring of self and community – deeply impressed itself upon tech organizations of and beyond Silicon Valley. It is from this counterculture that tech organizations adopted an ideal of continual improvement that prompts employees to fuse their work at the organization to their work on themselves. In this way, what was good for tech organizations became entangled with conceptions of what was good for individuals, drawing from the institution of therapy, and carving out self-improvement as an important aspect of the industry. For today's software industry, in which the organizational framework of agility prevails, Silicon Valley's Bohemian culture continues to thrive. To better grasp the significance of the agile model within cultures of professional software settings, below I discuss key historical shifts within the sector.

Shifts in the software industry, and the onset of agile

To understand the cultures of professional software settings, it is important to outline several monumental shifts within the industry itself. In doing so, I do not suggest that professional culture is shaped by these shifts in a directive way, but rather, that culture has a co-constitutive relation with software production. These realms continually influence each other as well as subjectivity. Moreover, over the past several decades, the shifts in software production and organizational culture have arisen in tandem with – and helped create a hospitable environment for – an individualistic rubric for working on oneself in order to thrive in the sector. Below, I provide an overview of some recent shifts in software production that highlight the move toward the agile model, a shift that intersected with a rise in neoliberalism.

North American software production: The rise of agile

Until the late 1960s, software tended to be bundled with hardware rather than sold separately (Neubert 2015). In fact, in 1969 the corporation IBM announced that it would be unbundling its hardware and software, which has been referred to as the event that marks the beginning of the software industry (Gibson 1989; Neubert 2015). This move by IBM also forged the path for commodifying software products, as well as the industry shift toward software as services (Neubert 2015; Gurses & van Hoboken 2017). Prior to the shift to services, so-called shrink-wrapped software was a product sold separately from hardware (Gurses & van Hoboken 2017). It had to be installed on a personal computer (PC), and regularly updated. Today, software is configured in such a way that "users" may log on to a platform and install a service, and many software providers have adopted subscription models through which, for instance, Microsoft Word has become Office 365 (Kaldrack & Leeker 2015). As noted by scholars Irina Kaldrack and Martina Leeker (2015: 9), rather than being a single purchase, software is "rented" as a service, a process that is ongoing. Software-as-a-Service (SaaS) has been accompanied by a technological, organizational, and discursive shift towards the "agile" model in the industry. On this topic,

Christoph Neubert (2015: 34) has suggested that through the agile model there is a "convergence of coding technologies and technologies of the self" (citing Neubert 2016),[iii] an assertation that I further explore in chapter four, which focuses on discursive dimensions of the agile model.

In addition, the move towards services in contemporary software production enables programmers to continuously adapt software in response to users' engagement with it (Gurses & van Hoboken 2017). In contrast to shrink wrap software, within the software as services model there is no clear beginning or end to this work since it is designed as a *service*. Drawing from the metaphor of software being "rented" rather than bought, software-as-a-service can be understood as that which requires ongoing upkeep by those who offer the service, whittling away barriers around when software production work begins and ends. This lack of a beginning and end aligns with the structure and pace of contemporary knowledge work more broadly (i.e. even outside of software) in which it is increasingly difficult to ascertain boundaries around what is and is not work. As noted by Gurses and van Hoboken (2017: 7):

> In concert with web service standards, service oriented architectures make it easier for modularized service components to connect and cooperate within an enterprise or across the industry […] This way of architecting the offering as a set of microservices, allows companies to adhere to the mantra of "doing one thing really really well" and relying on others for everything else (Google 2014, Carlson 2014). It contributes to the ability of businesses to rapidly respond to market and environmental changes.

Overall, the shift to services cuts down on costs and makes software updates easier for "users." Scholars Seda Gurses and Joris van Hoboken (2017) characterize these shifts in software as being constitutive of what they term the "agile turn." They suggest that the agile turn involves a) the shift to agile development methodologies,[iv] b) the move from shrink wrap to services, c) the shift from software functionality running on personal computers to the cloud.

With their identification of the "agile turn," Gurses and van Hoboken (2017: 1) provide a clear opening for studying the concatenation between modes of production and workplace subjectivities, although the scholars do not make this explicit connection. Yet, with reference to the shift to services, Gurses and van Hoboken (2017) state that "service oriented architectures" are undergirded with discourses around "extensibility, integrability, and interoperability" in relation to software components (citing Exposito & Diop 2014). I assert that these discourses also relate to organizational discourses concerning agility. Extensibility, integrability and interoperability are drawn on discursively in relation to software components, and are also discursively invoked as everyday organizational discourses that apply to culture and self-understanding. For instance, extensibility is defined as the "capability to be extended or stretched."[v] It speaks not only to psychological elasticity, but also to orienting towards expansion and growth. Moreover, integrability refers to the capability to undergo integration or to be integrated[vi] i.e. into a team, and into an organizational culture. Additionally, interoperability is defined as the ability of a system to "work with or use the parts or equipment of another system."[vii] In relation to organizations, this can be said to refer to agility around one's ability to operate both within and between teams. These terms begin to get at the discursive work that "agility" accomplishes within software organizations. Next, I situate the agile model within broader shifts in work, and discuss how the legacy of management science pertains to agile.

Early management science research, and the shift to agile in the software organization

With the shift to agile, software organizations have built upon a managerial environment that stressed self-surveillance for optimal productivity in the workplace. This shift indeed built upon a longer tradition of surveillance in managerial thought. In fact, Jeremy Bentham popularized the notion that surveillance compels good behaviour, and his ideas also had a prominent impact on workplaces. In the eighteenth century, Bentham conceptualized the notion of the panopticon, which is a model of architecture that incorporates a tall tower at the center of a building structure, and acts as a means to surveil

those within and beyond its walls (Foucault 1978-79). This model is inscribed with the notion that people will behave better the closer they are watched (Foucault 1978-79). This notion would be built upon by Frederick Taylor, commonly thought of as the Father of Management. As a management scholar and consultant, in the early 1900s Taylor introduced the systematic study of workers and identified what he considered the most efficient ways of conducting the work, which in some cases would be turned into training programs for workers. Using the stopwatch, Taylor's scientific management principles sought to create efficiencies within organizational settings, and set an expectation that tasks should be completed within set timeframes, with the goal of increasingly shorter durations (Gregg 2018). Also in this era, Lillian Gilbreth – an industrial engineer and one of the first industrial psychologists – would show that an important aspect of increased efficiency was not simply about being watched, nor about meeting quotas within specific timeframes. The efficiency Gilbreth noted was also centered upon the value derived by workers from producing an "archive of achievement" (Gregg & Kneese 2020: 4). After running a series of time-and-motion videos with her husband Frank, Gilbreth (1914: 33-4) noted that knowledge of being video recorded cultivated an interest in one's work in a way reminiscent of an "athletic contest" (cited by Gregg & Kneese 2020: 4). Gregg and Kneese (2020: 4) state:

> racing against the clock was a way of creating self-esteem. Gilbreth's articulation of individual outputs with the moral stimulus of self-improvement is the framework through which management regimes encouraged their workers to plan and progress their careers for decades.

This early example begins to show how positive feelings from productivity settle into a sense of self.

Moreover, the Hawthorne experiments of the 1920s and 1930s also yielded foundational research for the study of management science that continues to influence corporate workplaces. Conducted on mainly female, migrant factory workers and led by Harvard professor Elton Mayo, through the Hawthorne experiments, workers were found to produce higher outputs when they were provided ten-minute breaks for rest and

sustenance (Gregg 2018). Although Mayo's research has been heralded for inspiring a shift towards more humane conditions for these workers, less widely discussed is that he brought forth the therapeutic influence within the manager-worker relation (Gregg 2018). Gender and cultural studies scholar Melissa Gregg (2018) notes that in his interviews of workers, Mayo inquired about their social and personal lives, and even prodded into their physiology, documenting, for instance, their time of menstruation. Gregg (2018) notes that Mayo – being strongly influenced by Sigmund Freud and psychologist Jean Piaget – sought to understand the full picture of the workers he interviewed, and applied invasive methods to do so. In melding therapeutic inquiries into his research interviews with workers, Mayo even investigated what he referred to as their "neuroses," examining how these impacted their workplace productivity (Gregg 2018: 44). As Gregg (2018) points out, there are multiple omissions in Mayo's accounts of his research encounters, and the power dynamic he held over his (predominantly migrant women) interviewees is an often overlooked aspect of his contributions. Yet, Mayo's centering of the therapeutic within management science is a legacy that is still felt to this day, and sheds light on the public-private entanglement that technology has helped exacerbate. This legacy also provides helpful context when considering the predominant call to the "full" or "whole" self within contemporary software organizations. Indeed, management thought in the 21st century has built on all of the aforementioned findings – from Bentham and Taylor to Gilbreth and Mayo – to entangle public and private life, in part through binding self-understanding to feelings of pride and achievement for a job well done (Gregg 2018; Gregg & Kneese 2020). This research continues to inform contemporary ideas around the internalization of work-based accomplishments.

Contemporary corporate management texts compel both productivity and organizational harmony through exhorting workers to take up "ideal" professional subjectivities in a way that seems to come to them autonomously (Cabanas & Illouz 2019; Chiapello & Boltanski 2018; Gregg 2018; Rose 1998). Additionally, in a variety of corporate spheres including software, Taylor's "job-minded" ideals, which prioritized the notion that workers should themselves adjust to fit the requirements of the jobs they filled, were largely replaced by a "people-minded" managerial period (Cabanas & Illouz 2019). The latter was based on the notion that the job should satisfy individual workers' social,

motivational and affective needs in order to evoke "optimal" productivity and performance (Wren 1994 as cited by Cabanas & Sánchez-González 2016).

In terms of organizational management of software, Michael Mahoney's (2004) work reveals how early software pioneers drew inspiration from these managerial rubrics. For instance, the well-known software engineer Watts S. Humphrey cited managerial thinkers of his time and built on Taylor's work to conceive of effective ways to manage software organizations. Yet, Humphrey (2000: 72) points out that while Taylor's manual labourers were closely managed, more contemporary knowledge workers performed their jobs more effectively when working autonomously. For Humphrey (2000), software developers need to not simply understand the most efficient methods of doing things, but also must decide how to proceed with their tasks. He states:

> software professionals are thinking people; they resent being ordered to do almost anything. If they are treated with respect and have a say in the changes that involve them, the results will be more successful (Humphrey 2000: 73).

Here, Humphrey shows that management discourse in software centers the importance of feelings of autonomy in workers. Humphrey (2000) also describes instances in which his own organizational model[viii] failed. He states, "the fundamental problem has been that it was viewed as an engineering training program rather than as an organization-wide process change" (Humphrey 2000: 74). What this shows is that industry leaders such as Humphrey were beginning to centre autonomy as a central aspect of motivating productivity within software workforces around the time that use of the agile model was growing in popularity. In fact, the *Agile Manifesto,* discussed at length in the fourth chapter, was penned in 2001, that is, shortly after Humphrey's (2000) comments.

In relation to organizational management, agile is known as a means to engineer efficient team work in software, yet, it also brings a host of teachings related to the self. Increasingly, software producers have moved from heavy, planned information system models that are considered "structured," to so-called lightweight models considered "agile."[ix] Until the 1990s, "structured" processes were predominantly used (Gurses & van Hoboken 2017: 6). Meanwhile, in a market climate that has become increasingly volatile

and itself subject to change, agile has been popularized within software companies to better address these conditions. In fact, the rise in agile corresponds to the rise of neoliberalism. I discuss neoliberalism below and show how it has impacted work in software organizations.

Neoliberalism and the Canadian software industry

Alongside shifts within modes of software production and managerial rubrics, the software industry in Canada in the 2000s has been swept up in social, political and economic transformations due to neoliberalism. In fact, neoliberalism is significant for this industry in ways that go beyond the historical happenings of the rise in agile within software. Below, after outlining neoliberalism as a political and economic ideology, and then showing how it has shaped Canada as the site of this study, the discussion turns to how neoliberalism works through culture. This trajectory enables an understanding of how neoliberal norms and values come to be centered within institutions, and among individuals, in ways that are historically and culturally situated.

Neoliberalism: A political and economic ideology

Neoliberalism can be, broadly, understood as a political and economic ideology and policy framework centering deregulation, privatization and the clawing back of social and welfare provisions. As an ideology, neoliberalism has roots in the Mont Pèlerin Society (MPS) established in 1947, a community of intellectuals that helped to reinvigorate support of capitalism following the Great Depression and WWII (Mirowski & Plehwe 2009; Stedman Jones 2012). As a transnational community, MPS included thinkers such as Friedrich Hayek, Milton Friedman, and Michael Polanyi, among others, who advanced a new version of liberalism. Support for their ideas was gained in part through drawing attention to the totalitarianism in WWII Europe, destabilizing notions of collectivism in favour of free trade, tax reductions, and the primacy of the market (Stedman Jones 2012).

The MPS set the basis for neoliberalism to take hold in policy contexts within the U.S. and the U.K. (Mirowski & Plehwe 2009), two of the most influential powers for neoliberalism in Canada.

In fact, neoliberal ideology gained additional prominence in the 1980s through two figureheads, President Ronald Reagan in the U.S. and Prime Minister Margaret Thatcher in the U.K., who held power from 1981-89 and 1979-90, respectively.[x] By the 2000s, Reaganism and Thatcherism had laid the groundwork for neoliberalism as a wide-reaching political and economic ideology. Increasingly common in the 1990s and early 2000s – in the U.S., U.K. and Canada – were discourses that centered austerity. Such discourses legitimated a fiscal agenda and accompanying policies that vastly reduced spending on welfare and other social supports. Even the liberal governments that held power in these years continued to uphold ideals such as fiscal conservatism and the criminalization of groups marginalized at the intersection of race and class. Relatedly, considering that the agile model was popularized in software in the early 2000s, "agile" coincided with the broader sedimentation of neoliberalism into everyday life.

Contemporarily, neoliberalism in software can be noted within globalization and the lack of checks on both conglomeratization and data acquisition that have all placed increasing power into large corporations. Critical scholars have pointed out that the lack of privacy and data controls among tech companies in particular have brought a myriad of harms to communities marginalized at the intersection of race and class, in ways that have at times been life-threatening (Gangadharan & Niklas 2019; Gangadharan 2017; Zook et al 2017). In the context of labour, neoliberalism can be noted in the shift towards flexibilization within the labour market, in which the full-time, permanent job has become less and less common. The shifts towards flexibilization have also been accompanied by a weakening of collective action. A pertinent example of this is Amazon's long-standing and ongoing discouragement of its workers organizing collectively to join a union (Streitfeld 2021). Also, the normalization of non-standard, contract-based work has most adversely impacted people who are marginalized at the intersection of race, class, immigration status and gender. Relatedly, for individuals with full-time permanent professional positions, many are expected to respond to online communication at nearly all waking hours (Mazmanian et al 2013). In professional software contexts specifically – although by no

means exclusively – at almost all levels there are increased demands on individuals' time and outputs. Furthermore, one of the ways in which neoliberalism has been legitimated is through the discourse about economic uncertainty. That is, in a context in which labour is less and less stable and secure, and also *feels* this way for workers at nearly all levels of the socio-economic spectrum (Cooper 2014), political and cultural discourses that seem to respond to this instability tend to be heralded (Bracke 2016; Neocleous 2013). Indeed, neoliberalism suggests that individuals are responsible for their lives, regardless of the normative structures that impact their day-to-day lives including white supremacy, capitalism, and hetero-patriarchy.

Neoliberalism as a political and economic rationality in Canada

As mentioned, contemporary neoliberalism in Canada has been closely connected to, and influenced by, its onset in the U.S. and U.K. In the years of post-WWII expansion in Canada, wages had doubled, and social securities were improving via the introduction of national medicare, unemployment insurance and the Canada Pension Plan (Stanford 2014). At the same time, as in other capitalist nations, corporate interest groups conceptualized of taxes as being too high, regulations too stringent, and social welfare too generous (Stanford 2014). Led by elites, neoliberalism represented a global political and economic strategy to recenter corporate interests. In order to understand the impact of neoliberalism on the software sector in Canada, it is helpful to get a sense of how it came to be introduced as a political economic ideology in the country.

In the early 1980s, the Bank of Canada, led by Gerald Bouey, sharply increased interest rates, emulating US monetary policy of Former Chair of the Federal Reserve Paul Volcker. As an attempt to control inflation, interest rates would eventually reach higher than 20 per cent. Bouey's monetary policy led to a recession, with tens of thousands of Canadians losing their homes and the unemployment rate reaching double-digits (Stanford 2014). Additionally, in the 1990s there was a dismantling of Keynesian welfare state institutions. At this time, federal transfer payments to the provinces were vastly reduced, resulting in diminished resources for basic social services that the provinces administered,

such as health services, welfare and education (Shapcott 2004). Furthermore, minimum wage levels were capped at punishing levels while all provinces lowered welfare payments, and the national unemployment insurance plan began to exclude part-time, temporary workers from access to benefits. Regarding the latter point, unemployment insurance ceased providing benefits to the facets of the workforce that tended to face the greatest challenges in finding good-quality jobs including newcomers, Indigenous people, racial minorities, women and, especially, those marginalized at the intersections of these categories (Donnan 2014). Overall, the policy priorities of debt reduction and low tax-rates led to an erosion of social welfare (Donnan 2014). As noted by economist Armine Yalnizyan (2010), between the mid-1970s and 2007, the wealthiest 0.001 per cent of Canadians saw their share of income quintuple, with income inequality rising and tax rates for high earners steeply dropping.

In more recent years, the legacy of neoliberalism in Canada has been exacerbated by Prime Minister Stephen Harper, who held office from 2006 until 2015. Scholar Donald Gutstein (2014) notes that although Harper inherited a neoliberal Canadian nation, he added to it a nuanced "incrementalism." Gutstein (2014) suggests that rather than furthering neoliberal policies in an obvious way, Harper took a more subtle approach that served to obfuscate the impacts of policy moves and, in doing so, strengthened the force of neoliberalism in the country. Harper did this, in part, through promoting bitumen pipelines, circumventing Indigenous organizations and disparaging government science (Gutstein 2014). Alongside these incremental moves were a complementary set of right-wing ideals centering the primacy of the market and supporting deregulation, reduced taxes, and lessened social supports. Such ideals, which aligned with those of Reaganism and Thatcherism, were propagated by conservative think tanks and sympathetic media and advocacy groups throughout Canada (Gutstein 2014). This relates to one of the central and lasting impacts of Harper's reign; that is, its cultural impact.

In communicating that economic growth superseded environmental and social considerations, and that Canadians' future depended on this growth, Harper cemented a core cultural facet of neoliberalism in the country. That is, he sowed the seeds for neoliberalism to hail Canadians of all political stripes. In positioning the growth of Canada's economy as an unquestionable good in the cultural sphere, it became increasingly difficult

to make a case against the sectors that supported this growth including, and perhaps especially, the oil and gas industry. While oil and gas may seem to be an industry that has little to do with the present dissertation, it – similar to software – has been an industry long supported by right-wing groups. Yet, the North American software sector is unique in that this industry began to crystallize in the 1960s through the seemingly unlikely bedfellows of right wing corporate interest groups and Silicon Valley bohemia (Turner 2006). The common interests of technological advancement within an open, unregulated market brought these groups together, and culture played a key role in legitimating the process.

Neoliberalism: A cultural project and an affective, psychic regime

Although neoliberalism is commonly understood to be a political and economic ideology, it is significantly also a cultural project. In fact, culture is a central means through which consent is gained for the ideology of neoliberalism. As Stuart Hall (1988) has argued, culture is needed to win over "hearts and minds," highlighting the importance of gaining people's active consent to make ideologies hegemonic. Hall (1977: 213) asserts:

> Culture is now one of the most dynamic – and most unpredictable – elements of historical change in the new millennium. We should not be surprised, then, that struggles over power increasingly take a symbolic and discursive rather than simply a physical and compulsive form, and that politics itself increasingly assumes the form of a 'cultural politics.'

In his critique of Thatcherism, Hall (1988) shows the ways in which discourse is mobilized for political purposes. Thatcherism, Hall (1988) asserts, offers metaphors such as the nanny state, which suggest that welfare hinders progress through impeding individuals' wills to pull up their bootstraps and go it alone. Such metaphors tapped into affective registers of the British public, through imagining a common enemy for any financial strife faced individually. In doing so, they capitalized on an affective politics of fear and rage

directed at so-called "others," most often racial minorities, that has long been a characteristic of colonial nations (Ahmed 2004).

The metaphors that Hall (1988) investigates also reveal that the answer to individual financial difficulty was imagined as the reduction of tax, welfare and social services alongside deregulation. In other words, in discursively constructing welfare and social supports as collective ills, policy-based "solutions" – the clawing back of these supports – was legitimated as a sensible approach. This discourse suggested that both the market and individuals would have the freedom to pursue wealth, unencumbered by government support that may otherwise hold them back. In this metaphorical imagining, social assistance becomes a harm that prevents people from helping themselves through gaining employment. It shows that discourse – circulated through cultural products – has a central role in pushing forth policy change, with tangible impacts on people's lives. Here, neoliberalism foremost centers discourses of merit and empowerment that suggest anything is possible if the appropriate choices are made, and that both successes and failures are earned (Harvey 2005; Littler 2018). The implicit assumption within much neoliberal discourse is the notion that it *is* possible to change one's plight provided that certain efforts are taken on the part of the individual, regardless of their circumstance.

Furthermore, a growing body of research explores the interior processes through which neoliberalism takes hold at an individual level. Such research investigates the inner workings of the relation between culture, and the shared ways in which people are called to make sense of themselves according to neoliberal sensibilities. Cultural, media and feminist studies researchers have exposed how neoliberalism is propagated through cultural artefacts that exhort individuals to continuously remake themselves in the image of an "ideal" subject (Dosekun 2015; Gill 2011; Gill & Orgad 2015, 2017; O'Neill 2020a, 2020b; Orgad 2019). Such research focuses upon the ways neoliberalism operates at a psychological level, investigating how it compels subjects to organize their interior lives and, increasingly, how to *feel* (Ahmed 2004; Brown 2015; Dosekun 2020; Gill & Kanai 2018; Gill & Orgad 2018; O'Neill 2018, 2015). Scholars have referred to the "psychological turn" of neoliberalism (Gill & Kanai 2019; Gill & Orgad 2017), and to its "psychic life" (Butler 1997; Scharff 2016), assessing how this ideology permeates the inner "nooks and crannies of everyday life" (Littler 2018: 192). This research tradition makes its focus the

psychic investments (Dosekun 2020; Gilchrist 2021; O'Neill 2020, 2018), affective dimensions and indeed "feeling rules" (Gill & Kanai 2018, 2019; Hochschild 1983: 288) of various cultural imperatives. Indeed, an important aspect of this body of research is often an affective component. Here, the cultural project of neoliberalism has a prominent role to play in circulating discourses that encourage the uptake of specific ways of feeling. Indeed, feeling rules set the cultural and social parameters around what it is appropriate or inappropriate to feel during and about certain situations (Hochschild 1983). In assessing the interior world of neoliberalism, we can begin to understand how this ideology takes hold within, and how it is expressed in aspirations, desires, fantasies and everyday life. Following Foucault's (2008: 226) assertions around the neoliberal subject as an "entrepreneur of himself [sic]," these studies also explore the ways in which market logics are extended to the ways we are instructed to think and feel.

As a cultural project in the U.S., the U.K. and Canada, neoliberalism is an iteration of capitalism characterized foremost by individualism. Making the self its primary site of intervention (Rose 1998), neoliberalism exacerbates the tendency to apply market-oriented logics to realms of life typically considered part of the private realm. It also increasingly entangles these realms to the extent that it has become difficult to distinguish public from private (Cabanas & Illouz 2019; Hochschild 1994; Illouz 2007, 2008). In fact, contemporary capitalism has brought a more cohesive and unified approach to selfhood (Gill 2011; Hochschild 1994; Illouz 2007). As noted above, the software sector has centered the so-called benefits of bringing the "whole" self to work. In an era in which neoliberal capitalism has led to work and home increasingly entangling, urging for a "whole" self at work is seen as a highly efficient approach, in part because it already assumes the entanglement of public and private life. Yet, the notion of a "whole" self overlooks the self as complex and fragmented. It also overlooks that, in neoliberal societies, management of the self is a multi-layered process that is linked to the various social worlds that people move through (Hochschild 1994).

Neoliberal subjectivity at work

Neoliberal capitalism and concomitant changes to work have centered the organization as an ideal setting for individuals to make sense of the self (Chiapello & Boltanski 2018; Hochschild 1983; Rose 1998). In the context of professional North American workplaces, in recent decades many sectors have supplanted "conventional orders and hierarchical relations" with culture-shifts that aim to encourage employees and workers to act in ways beneficial to the organization (Chiapello & Boltanski 2018: 506). Chiapello and Boltanski (2018: 506) assert that, as part of this shift, "cadres' must turn themselves into 'sources of inspiration', 'coaches', or even 'leaders'," who "formulate exciting 'visions' which make people aspire by themselves, since it is no longer legitimate to force them to do so."

In most corporate workplaces, certain emotional and social ways of being are constructed as resources concerning how day-to-day business is conducted (Adkins 2002; Swan 2008). Indeed, the corporation is an institutional workplace setting that has long constructed professionalism as being void of strong expressions of (especially feminized) emotions (Cabanas & Illouz 2019; Illouz 2008). People who are underrepresented also tend to be held to different standards. While people of colour, women, and most especially women of colour are held to a standard in which a tightly managed "professionalism" is constructed as desirable, it is often the white, cisgender, male executives who are able to be more demonstrative in the workplace (Swan 2008). While software organizations are generally informal culturally, they remain situated within neoliberal capitalism and structured by the logic of organizational hierarchy. In such a context, showing *too much* of specific emotions, such as anger or sadness, can have career repercussions. On a related point, Foucault (2001) has shown that the way in which intersubjective communication is received is a process governed by positionality and power. Following Foucault (2001), I assert that how employees construct and negotiate their professional selves provides insight into normative assumptions around who is best poised to enact self-improvement discourses. Such an interrogation exposes a politics of privilege that centers an "ideal" subject within the organization. As Hochschild (1975) has noted, within the organization and outside of it, powerful people live in different emotional, social and physical worlds.

Indeed, the software industry is a key site for emotional self-management. The sector takes a highly flexible approach to inspiring desired conduct, which extends beyond industrial leaders to include agile as a prolific organizational model that brings forth specific industrial values. In fact, the presumed informality of software workplaces makes them even more important sites to employ strategic ways of being. That is, in an industry in which people are encouraged to both work and play together, the boundaries around professionalism can become nebulous and thus all the more important to manage. In such a context, how do industrial logics encroach in deeper and more nuanced ways into how we make sense of ourselves and our social worlds? This is one of the questions that I grapple with in the empirical chapters of this dissertation. Furthermore, it is important to note that subjectivity, emotional understandings, and affect are all permeable to intersubjective relations and to culture (Ahmed 2004; Gill 2011; Lupton 1998). Simply because people have agency in how they respond to workplace and cultural discourses does not negate the importance of these discourses in shaping their inner worlds. Thus, even when ways of being are constructed as a purely logical means to achieve some aim – including in cases in which people are skeptical – as Hochschild (1975) suggests, people are still sentient subjects.

Neoliberal subjectivity and the enterprising self

Central to neoliberal subjectivity is the enterprising subject or the entrepreneurial self. As Foucault (1978-79) explains through the metaphor of the panopticon, neoliberal societies bring forth the possibility of ubiquitous surveillance, which takes shape in part through subjectivity. The panopticon represents a continuous, disciplinary form of governmentality that exhorts subjects to internalize institutional norms and codes of conduct, as they are continuously subject to the possibility of surveillance. This self-governance relates not simply to how we conduct ourselves socially but also to how we understand ourselves and our lives. Nikolas Rose (1998) argues that attention to the ways in which subjects construct themselves discursively can help to reveal governmentality. That is, analysis of the "autonomous" self, for example, or the self that is supposedly

unencumbered by institutionalization – psychiatric-medical, militaristic or otherwise – helps us to understand how the values of powerful institutions come to be negotiated at the individual level (Rose 1998). Building on Foucault, Rose (1998) suggests that autonomy is itself situated historically, socially and culturally, and that the way in which people "freely" conduct and understand themselves reveals subjectivation.

Furthermore, the ways in which people are called to work on themselves through discourse can help to reveal how power is enacted and reified in neoliberal societies (Foucault 1986, 1988, 1990; Rose 1998). Foucault interrogates how power materializes not through explicit coercion, but via softer means that engage subjects to willingly and at times enthusiastically participate in their own subjectivation. Culture is an important aspect of this process, since cultural texts such as media products – including films, television, books, newspapers, magazine articles, social media posts and more – call subjects to behave, think, and feel in ways that are sutured to power. Yet, culture is not limited to media texts. Indeed, industrial and organizational cultures are circulated through industry- and organization-specific discourses and practices. In this way, dominant values are shared among employees and workers, and made common sense within professional cultures. Such discourses often implicitly include constructions of an "ideal" subject, which workers are tasked with emulating. I acknowledge that Foucault's (1978-79) earlier work remains informative for my conceptualization of subjectivity, particularly the notion of subjectivity as a disciplinary force that exerts power over conduct. Yet, I draw especially from Foucault's later works, as these suggest that although subjects remain bound to a certain extent by the conditions in which discourse is produced, they also have agency in terms of how they respond.

As alluded to above, the Foucauldian concept that animates much of my work on subjectivity is that of the "enterprising" subject. An enterprising subject constructs the self as one that possesses ambition, autonomy, resourcefulness, and accountability (Gill, Kelan & Scharff 2017; Foucault 1978-79; Rose 1992, 1998; Scharff 2016). For Foucault (1978-79), in neoliberal societies the enterprising ethos permeates conduct to such an extent that it becomes the defining feature of subjectivity. Furthermore, a growing body of the literature on the self-regulating force of the enterprising subject focuses upon the constitution of subjectivity in relation to work and the workplace, centering its gendered

dimensions (Adamson 2018; Brown & Kelan 2020; Conor 2014; Conor, Gill & Taylor 2015; Duffy 2016, 2017; Hochschild 1994; Hochschild & Machung 1989; O'Brien 2019; Scharff 2017). As some of these studies have noted, an important aspect of the constitution of subjectivity is abjection, or the process through which the enterprising or entrepreneurial subject configures itself in part through the repudiation of what it is not (Scharff 2016 citing Tyler 2013, Ringrose & Walkerdine 2008). Abjection is productive in that it helps to legitimate the ideal subject, and assists people in drawing boundaries around themselves and those deemed abject (Scharff 2016). It is important to note that in corporate settings of software, the ideal subject is significantly racialized, gendered and classed, namely white, male and upper-middle class. Indeed, a study that investigates subjectivity concerning membership on boards in the U.K. highlights the embodiment of this ideal, showing that individuals are assessed on "embodied capability measures, such as physical fitness, voice and appearance" (Merilainen as cited by Brown & Kelan 2020: 14). Similarly, sociologist Lauren Rivera (2015) has also shown that key identifiers – such as membership at elite clubs and participation in high-cost extracurriculars – are markers of the ideal subject that can be read off a CV to screen candidates for elite roles. Moreover, once candidates have made it into elite roles, as organization and gender studies scholar Elisabeth Kelan (2014: 790) points out, inequalities are commonly silenced discursively and even rendered "unspeakable."

In the tech industry, the ideal subject is perhaps nowhere more apparent than in discourses about tech executive celebrities. Indeed, since the 1980s when political discourse about the importance of entrepreneurialism began to take hold, tech visionaries became some of its chosen subjects (Streeter 2015). With industry icons such as Steve Jobs heralded as entrepreneurial heroes, tech business celebrities also became emblems of what is possible and desired in terms of career aspirations. This heralding of tech entrepreneurs calls subjects to attempt to embody the tech industry ideal while simultaneously bolstering the notion of merit, and the idea that with the right set of self-directed tools people can transform their lives, start multinational businesses, and have their dreams actualized.

An important aspect of my approach to subjectivity is intersectionality, a term conceptualized by Kimberle Crenshaw (1989; 1991) and developed within Black feminist scholarship. Yet, on this point I must note that due to the extensive challenges related to

confidentiality in this research – outlined in my method chapter – a fully intersectional analysis has, in many places, not been possible. In order to protect identities and thus confidentiality within a highly networked sector, in places I have not been able to report the full positionalities of my participants. I acknowledge that this is a significant limitation of my study, albeit a necessary one. With that limitation in mind, the intersectional lens I draw from incorporates an understanding of race, gender, and class as that which intersect in everyday life rather than being experienced somehow separately or in distinct categories (Collins 2000; Krenshaw 1989, 1991). Collins (2000) notes that an important facet of intersectionality involves relationality. According to Evelyn Nakano Glenn (2002), relationality is a process of attuning to how categories of race, gender, sexuality and class are constructed in relation to each other. Intersectional relationality unsettles a myopic view of categories. As demonstrated by Collins (2000: 18), "intersectionality refers to 'particular forms of intersecting oppressions' since oppression cannot be reduced to one fundamental type." In relation to the concept of intersectionality, the "matrix of domination" refers to the ways in which intersecting oppressions are lived out and organized (Collins 2000: 18). Again, although my analysis endeavours to be intersectional, due to the limitations regarding confidentiality, this is an only partially realized aim in my analysis. At points I had to make choices about altering or leaving out details related to positionality. Considering that, I have endeavoured to apply an intersectional lens throughout my analysis while maintaining my methodological choices related to confidentiality and ethics that have prevented this aim from being fully realized.

Technology of self

One of the theories of neoliberal subjectivity that I draw from is that of the technology of self. In chapter five, I pull from this Foucaldian (1988) theory to show that there is an emerging culture of productivity related to neoliberal capitalism that bears down upon self-understanding. Foucault (1988: 18) defines technologies of self as processes through which individuals act "on their own bodies and souls, thoughts, conduct, and way[s] of being so as to transform themselves." Foucault's theory asserts that how

individuals conduct themselves is linked to their patterns of thought, which are situated within specific historical and cultural contexts. Indeed, technologies of self also draw connections between truth regimes and the agency of individual subjects (Gill & Orgad 2015, 2017).

Furthermore, in examining how employees constitute themselves as ideal subjects, I am also assessing how power is negotiated at the level of the self. On this point, scholars have also shown that technologies of self can compel a turn inward to focus upon cultivating certain ways of being and emotions (Gill & Orgad 2015, 2015). In focusing individuals on their own internal resources to improve aspects of their careers and lives, the technologies of self I discuss obscure how structural power shapes the social world. Moreover, as alluded to in the previous section, social competencies are gendered. In particular, competencies that involve feminine emotionality tend to be imagined as natural to women and less natural to men (Adkins 2002; Kelan 2008; Swan 2008). In the technology sector, such competencies are unlikely to be understood to be labour for women and are also less likely garner organizational rewards (Kelan 2008). Leaders, who are predominantly white, cisgender men in the software sector, are presumed to lack the feminine qualities that self-improvement discourses tend to center. Thus, who receives social and economic rewards for such qualities is a process structured by positionality and organizational power.

In addition, in interrogating the culture of productivity I also draw from postcolonial, feminist scholar Sara Ahmed's (2019) theorizations around use. In her critique of the theoretical underpinnings of use in capitalist societies, Ahmed (2019) argues that to idle denotes ceasing to operate, and connotes ceasing to *be*. I draw from Ahmed (2019) to understand and theorize how people negotiate productivity culture, and how they use workplace technologies to make certain aspects of their lives more or less visible. I interrogate these negotiations and visibilities in relation to the entanglement of the public and private, assessing the political ramifications of the requirement to exhaustively perform an ideal professional self.

Organizations, emotion, self-improvement and neoliberalism

The work of sociologists of emotion usefully animates the research on neoliberal subjectivity. Conducting years of ethnographic research in Silicon Valley, English-Lueck (2010, 2017) provides a rich, detailed account of the typical lifestyles of its professional workers, and of the ways they are called to organize their inner lives according to a systematic ethos. Furthermore, scholars studying knowledge workers in tech (Dunbar-Hester 2016; English-Lueck 2010, 2017; Wajcman 2014, 2018, 2019a, 2019b), and in other sectors (Gregg 2011, 2018), have noted that the quest to be productive has itself taken on moral dimensions, despite what is being worked on. Below, I discuss literature on sociology of emotion in professional settings, which I draw from throughout this dissertation and use as a conceptual and analytical framework.

Sociology of emotion in professional settings

In the context of workplaces, while organizations continue to shape emotion work, in neoliberal societies this work is accomplished through an internally focused ethos that is willfully reinforced (Chiapello & Boltanski 2018). Hochschild's (1983) ground breaking study on emotion management among flight attendants found that companies explicitly directed workers to manage their emotions in ways that benefited the organization. After studying the workplaces and cultures of Delta Airlines, Hochschild (1983: 33) notes that there was annual emotion-management training given by the company to teach flight attendants to suppress anger and give the surface appearance of pleasantness, i.e. "surface acting." The training also instructed these workers to *feel compassion* for irate or abusive customers by, for instance, imagining they had difficult childhoods, i.e. "deep acting," in order to manage their own emotion and better serve these customers (Hochschild 1983: 33).

Furthermore, the ways in which individual employees are interpellated by organizational and industrial discourses is a process of negotiating how one's emotions, and self-understandings, map onto what Hochschild (1997: 5) refers to as a "collectively shared cultural dictionary." This dictionary applies to various aspects of life including

private-realm rituals such as weddings. In such settings, there is a pre-existing cultural script for feeling particular ways, and individuals may discover that there are feelings that are culturally sanctioned, and those that are not (Hochschild 1997). Indeed, "the emotional dictionary reflects agreement among the authorities of a given time and place" and "expresses the idea that within an emotional 'language group' there are given emotional experiences, each with its own ontology" (Hochschild 1997: 6). In various social contexts including the workplace and other professional settings, inner experience is matched against – and often corrected according to – the shared cultural dictionary of feelings deemed appropriate for a particular time and place. Considering this, throughout the present dissertation, I understand culture to be "an active, constituent part of emotion, not a passive medium within which biologically pre-formulated, 'natural' emotions emerge" (Hochschild 1997: 6). I also follow Hochschild (1983) in asserting that an act of emotion management, or the effort – conscious or not – to change one's emotion, also creates the emotion. In other words, emotions and feelings are not independent of how they are managed.

Moreover, although emotions always involve the body and feelings within it, they are not closed off biological events (Hochschild 1983). The word "emotion" derives from the Latin "emovere," which means "to move, to move out" (Ahmed 2004: 11). Meanwhile, as Ahmed (2004: 11) asserts, "what moves us, what makes us feel, is also that which holds us in place." Ahmed (2004) assesses how culture plays a regulatory role in the ways that emotions "stick" to certain people. I draw from Ahmed's (2004) work on affect to investigate my interviewees' reported emotions in the context of industrial culture, organizational hierarchy and positionality. Regarding the latter, as I will review in my methodology in the subsequent chapter, I provide as many details as possible in a way that protects interviewees' identities.

In software, there are not such obvious boundaries nor clearly articulated terms around how companies wish for workers to feel and emote as there might be at, for instance, Delta Airlines. Instead, emotion management is compelled in less direct yet potentially more powerful ways. As in other corporate settings of North America (Cabanas & Illouz 2019; Chiapello & Boltanski 2018), software employees are urged to take up specific social and emotional competencies through self-improvement discourses echoed in

and legitimated by industry best practices, popularized media, and workplace norms. In fact, hailing subjects in this way reifies a neoliberal logic by couching it within a discourse about healthy intersubjective ways of being.

Critiques of self-improvement

Self-improvement discourses, while frequently heralded in mainstream and digital media as that which are good, influence people in complex ways. An example of this is demonstrated by André Spicer and Carl Cederstrom (2015), who embarked upon an auto-ethnographic study in which they used a range of self-improvement techniques. Spicer and Cederstrom (2015) explain that they frequently felt worse after engaging in self-improvement, and became exhausted from a myopic pursuit of improving the self. Indeed, Ronald Purser (2019) has referred to the contemporary approach to self-improvement as "McMindfulness," pointing out the haphazard way in which practices to improve the self are detached from longer-standing traditions, made bite-sized, and lodged into a range of settings. Sarah Sharma (2014) shows, for instance, how yoga has been detached from its historical and cultural origins, and taken up by North American corporate "wellness" initiatives. Here, yoga becomes one of many tactics to sooth employees momentarily so that they may maintain their productivity at work (Sharma 2014). Far from being innocuous, self-improvement discourses tend to evoke what scholar Catherine Rottenberg (2014: 424) has referred to as a shift "from an attempt to alter social pressures towards interiorized affective spaces that require constant self-monitoring." A self-improvement initiative that asks people to remain narrowly focused on themselves is simultaneously an invitation to overlook opportunities to critically examine their surroundings, and also to intervene in situations that are not solely focused on the self. Considering this, to question how self-improvement discourses are constructed and negotiated by tech institutions is a political question. It is to ask what the industry compels of its employees in terms of their day-to-day ways of being, and the feeling rules that they are called to embrace. In turn, ascertaining how employees of software respond to these calls helps to reveal the ways in which they negotiate their professional selves. Considering that there are a myriad of

tensions between subjectivities considered ideal in public and private realms, the ways in which employees respond to these calls can also have consequences concerning (in)equity. Furthermore, organizational models and management discourses are also informed by positive psychology, which influences calls to self-improvement alongside a panoply of overlapping cultural, managerial, and therapeutic discourses.

Self-improvement and positive psychology in corporate workplaces

Organizational and industrial discourses can be powerful pedagogical resources that teach people how to think and feel about themselves, others, and their relationships. Rather than being enacted in predetermined ways, these discourses are negotiated through complex, non-linear processes that are inextricably connected to normative social structures. Self-improvement has increasingly been taken up within these discourses. In fact, many self-improvement techniques seem to respond to the conditions of work that have been precipitated by the move toward non-standardization and flexibilization in recent decades. Such techniques build upon both therapeutic and managerial ideas to introduce new subjectivities to workers, undergirded with a logic that suggests it is necessary to continuously work on the self as an individualistic project.

Furthermore, as noted above, much self-improvement discourse draws significantly from positive psychology. Martin Seligman (2011), known as the Father of Positive Psychology, suggests that it is only through ongoing self-development with a focus on one's inner strengths that individuals can hope to achieve "optimal" performance (cited by Cabanas & Illouz 2019). Although positive psychology primarily centers the importance of acquiring and maintaining positive affects, especially happiness, it also has a compelling offer regarding productivity. It suggests that happy workers are more productive workers, and that organizations should attempt to orient workers towards happiness (Cabanas & Illouz 2019). In fact, in recent years, positive psychology has merged with managerial discourses in a way that depoliticizes emotion and self-understanding (Cabanas & Illouz 2019). It is important to note that happiness discourses are distinct from those of self-improvement, although they often intersect.

Relatedly, self-improvement has a myriad of social, economic and political implications. Much self-improvement discourse draws from elusive, intangible, criteria that highlight the importance of positive affect above, for instance, labour rights. Furthermore, and of primary concern for the present study, to attempt to enact self-improvement discourses is to embark upon a project that will never see completion. As Illouz (2008) argues, continuously striving to improve the self often leads to new and ongoing suffering. Through this process, many people become preoccupied with their inability to achieve and possess their best selves, thus centering an incomplete self that requires continuous work to be remade and sustained (Illouz 2008). The boundlessness of self-improvement, and the circuitous practices that it compels, also make it easily commodifiable. In fact, the flexibility of self-improvement discourses make them particularly attractive to professional software settings in exhorting employees to conduct themselves in specific ways. In an industry that foregrounds adapting to change both in organizational practices and within the way software is itself built, part of the utility of self-improvement is precisely the lack of discrete boundaries around the desirable ways of being that it centers.

Conclusion

The road to the agile self is a circuitous but distinctive one. It begins with countercultural-cum-militaristic values, and coincides with neoliberal transformations that have permeated political, economic and social life, generally, and the software organization and knowledge worker within it, more specifically. When considering how neoliberalism has intersected with the rise of agile in software, and attending to the role that emotional self-management has played in the industry, the power of culture and discourse becomes apparent. Indeed, the informality of the software workplace, the lack of clear hierarchical structure among and within teams, and the flexibility with which various self-improvement discourses are compelled, all coalesce under a specific rubric of neoliberal understanding under the agile model. In the subsequent chapter, I provide an overview of my methodology. I then examine agile as a popularized organizational model in the software

sector, asking how it constructs an ideal subject and circulates specific ways of being and feeling as desirable in the sector.

Chapter 3

Methodology

Pursuing ethnographic fieldwork in an industry that is notoriously secretive has been, from an early stage, something I have taken very seriously. It involved a process that I discuss in the pages that follow. First, to briefly recap, chapter two discussed my approach to analyzing the relation between institutional discourses and individual subjectivities within the software sector, and provided my theoretical framework. In the present chapter, I outline the central research questions that my empirical chapters address, and offer additional context for the specific sites and people I have chosen to study.

Regarding my method, data was collected in Toronto and Vancouver, the relevance of which was discussed in the introduction and literature review. Over eight months during my fieldwork, four were spent based at the software organization Zebra and were more labour intensive. At Zebra, I attended 55 meetings including formal team meetings, company-wide events, training sessions and onboarding. In addition to being based at Zebra, my fieldwork also involved attending two large-scale technology conferences, one in Vancouver and a second in Toronto, one of which was focused on "women in tech," as well as several smaller-scale events in both cities. Overall, I conducted 75 interviews with employees working in the software sector of Vancouver and Toronto, of which 22 have been formal and the rest informal. Of my formal interviews, 20 were conducted with people who I had first interviewed informally. Thus, in total, there were 55 unique interviewees. Moreover, interviews were conducted with people who work at various companies, and do not reflect any single field site. All of the formal interviews have been transcribed and, with my field notes, coded and analyzed using the software NVivo. Within NVivo, I used 34 main codes and 103 sub-codes. The codes, which have been extracted from an excel file, are appended to this dissertation. My data includes 331.5 pages of interview transcripts, an additional 23.5 pages of post-interview reflections, and 245.5 pages of field notes. All of these pages were typed, single-spaced, in font Calibri, size 12. In the sections that follow, I

outline my research questions, sampling, considerations around access and recruitment for my study, and approach to data analysis.

Research questions and focus

At an early phase of my study, my central research question focused upon inclusion in high-tech workplaces. It asked, "how is inclusion negotiated through everyday discourses at digital media organizations, and what ideologies do such discourses enact?"[xi] Applying an inductive approach, I began data collection with the knowledge that my research question was likely to change once in the field. I analyzed my data throughout my fieldwork rather than when it was complete, which allowed me to identify themes and revise areas of focus and questions in response to my findings. Early on, I noted that self-improvement discourses materialized as themes, and that these discourses were echoed at both institutional and individual levels. Although this was not what I had initially set out to study, it aligned with my interest in power, emotion management and subjectivity. From there, I became interested in the ways in which constructions of desirable ways of being in professional settings were informed by popular self-improvement discourses, and how these understandings might serve to reinforce or challenge existing power structures and hierarchies. Moreover, much self-improvement offers a one-size-fits-all approach (Gill & Ngaire 2016). Considering that, attention to how self-improvement discourses are constructed and negotiated in professional settings helps to expose the different possibilities that these discourses can open up in ways that are influenced by culture, social setting and positionality. In other words, the ways in which people feel they can or cannot be or express in professional contexts reveals, to an extent, how power is negotiated.

In response to the data I had collected, I decided to modify my research question to ask, "how are self-improvement discourses constructed and negotiated by tech institutions (i.e. workplaces, conferences and industry events) and by employees in the software sector, and with what consequences?" Inclusion remains an aspect of this work in the sense that I maintain an interest in power, inequities, and privilege in professional settings, yet, as seen in my research question, it is no longer the central object of my research. Rather, my core

research interest centers the industrial imaginaries of the software sector, and asks how these are negotiated at the individual level. Throughout my fieldwork, I began to assess the reconfiguration of productivity, the entanglement of public and private life, and how industrial values bear down upon selfhood. Prior to reviewing the granularity of my methodological approach, first I provide a brief overview of Zebra, including non-identifying details the company has shared with me, and those that are publicly available.

Company background: Zebra

Zebra is a platform-based software organization in Vancouver, Canada. It is a business classified as large by the Government of Canada, as it has more than 500 employees. That is, the Government of Canada stipulates that small businesses are classified as those that have 1-99 employees, medium have 100-499 employees, and large have 500 or more employees.[xii] While it would be too revealing for me to state the exact number of employees within the company, Zebra had less than 5,000 employees at the time of my fieldwork.

I must note that it is necessary for much of this sub-section to limit details shared in order to protect confidentiality and honour the terms I agreed to when I signed a non-disclosure agreement with Zebra's legal team. I take this agreement seriously, along with my ethical obligation to my research participants and to the other settings I observed. For these reasons, I am not providing nearly as many details as would normally be expected following lengthy ethnographic research. Although I initially hoped to be able to discuss more of the specifics of my research, after completing the analysis and realizing that certain details would easily unmask sites and people, I made the decision to restrict the details provided. It is also for this reason that my dissertation is not written as more of a typical ethnography, providing rich detail about the specific sites of analysis and people I encountered. Indeed, I had previous full chapter drafts that included this kind of rich detail, however, this content has been omitted. The ethical considerations, which I outline further subsequently in this chapter, are unfortunately too great to warrant this kind of exposure.

Honouring Zebra's request to remain confidential in my research as a condition of my access has been one of the most challenging, and important, aspects of my fieldwork. While in the field, I recalled a moment during my ethnographic training when I asked a seminar leader, "What do you tell your family about where you are when conducting confidential fieldwork?" While this may seem a clunky and uncouth question, it gets at the heart of the messiness involved in navigating a field site that is to remain confidential. In an age in which there are multiple sources of digital footprints, and in a community where the people I was studying could easily have known others within my own social network, it is not possible to provide full assurance that the company identity could not be exposed. This concern played out in various ways throughout my fieldwork. Most pressingly for this chapter is the way in which it impacted my research choices. Specifically, it meant that I took steps to ensure my fieldwork *was* multi-sited, and to focus on broader industrial imaginaries within the sector. The reason for this was precisely that, from an early point, I realized that despite my best efforts it would ultimately be possible for a single field site to become exposed. Additionally, while my research was confidential and I asked for consent in each of the settings I visited, it is unlikely that every participant I encountered would remember or necessarily care that this research was confidential. This is not meant to be a slight towards those I studied, but instead a realization that in a fast-paced setting, and one in which openness and transparency reign as ideological values, my request for confidentiality was unlikely to be all that memorable.

Moreover, in the software sector, it is common for professionals to change jobs frequently, and indeed rare for them to remain at the same company for several years or decades. Some of the employees I interviewed at Zebra, for instance, were new hires, and others left the company soon after our interview took place, speaking to the fluidity of culture within the industry. In retrospect, although this initially seemed to be a methodological challenge, it supported my focus on broader industrial-cultural discourses rather than on those of one single site. This allowed me to collect a much richer breadth of data, and to make connections between multiple sites. Indeed, many of the cultural discourses that my ear became attuned to emerged not simply within the company I studied, but also within the other sites I researched. There were of course certain discourses that were specific to the company, however, in the interest of protecting

confidentiality, I do not explore those discourses in the present dissertation. Below, I outline how I navigated access and recruitment at the field sites I studied.

Entering the fieldwork: Sampling, and negotiating access

When searching for an appropriate workplace to conduct my fieldwork, I sought companies that operated at least one online platform, and those that endeavoured to use an inclusive approach to their workplaces and also to the products/services they offer. Outreach began in June 2018, and involved attending multiple industry and academic events in London, UK and Toronto, Ontario. It also involved emailing professional contacts, LSE alumna networks, connections through my supervisors, and reaching out to companies "cold." Using the latter method, I began a relationship with a gatekeeper at Zebra.

In conversations with the gatekeeper who helped to grant me access to Zebra, I stated my broad interest in inclusion, and outlined the areas that I am interested in, using non-academic language (e.g. employees' understandings of and experiences with inclusion in the industry; how they encounter inclusion in their day-to-day work lives; and the emotions that workplace inclusion brings up). As part of negotiating access and giving back to the workplace, I compiled a report for Zebra regarding workplace inclusion. In terms of the process I followed for this, during both informal and formal interviews with Zebra employees, at the end of our conversation I asked participants if they would be open to answering one question regarding inclusion at Zebra. The majority of interviewees willingly complied. For formal interviews, I shut off my audio recorder for this portion of the interview and instead took hand-written or typed notes. I explained that responses would be included in a report generated for Zebra, and that their identities would remain confidential, and any identifying details would be altered or omitted. The gatekeeper was appreciative of this report.

That being said, it was difficult to know how much to offer to Zebra in this regard, i.e. in terms of giving back as a researcher. Without the gatekeeper advocating for me, facilitating introductions, and inviting me to multiple meetings and events, it is possible that this research would have taken a completely different format. It was extraordinarily

generous of this person to go to such lengths to grant me access, and also speaks to their commitment to inclusion in the workplace. To suggest that I am grateful would be a vast understatement and, given that this person had such trust in me, this relationship also informed the lengths that I went to in protecting and honouring confidentiality, and choosing a topic that would minimize ethical concerns for the individual participants and sites involved. In other words, this relationship did indeed impact the direction my research took and, especially, ensured that it was a thoroughly multi-faceted project.

Furthermore, when negotiating access at my other field sites, gaining consent was an ongoing process. As mentioned, my research also took place at two large-scale technology conferences, one in Toronto and the other in Vancouver, held at convention centers. Prior to attending these conferences and events, I received organizers' consent regarding my attendance as a researcher. Onsite, I also introduced myself as a researcher conducting participant observation and taking notes on what was taking place and being said. As at Zebra, in these spaces I asked participants to let me know of anything that they did not wish to have recorded via note-taking. No one asked me to avoid taking notes and, in fact, at times encouraged it. For the reasons outlined above, I will not be providing the specific names of these conferences and events, nor any clearly identifying details.

Barriers to access and ethical considerations

This research involved multiple barriers regarding access and ethical considerations that are significant to the organizations involved. Namely, given that the software industry is highly competitive and preoccupied with protecting trade secrets, having a researcher in the workplace is commonly understood to be a threat. With this in mind, I did not collect data on classified information at or outside of Zebra including products, services or other offerings, confidential internal policies, strategic partnerships, as well as anything that I was not granted access to. Of the few documents that I did collect at Zebra, I decided to minimize my analysis of these, and to use them mainly as reference points for broader industrial discourses.

Since Zebra and the conferences and events I attended are to remain unknown in my research, I have removed indicators that could trace back to the organizations and sites involved (e.g. specifics around their brands and operations information), including in any publications and my thesis. In doing so, I draw from the methodologies of sociologists Lauren Rivera (2015) and Ashley Mears (2011) who conducted participant observation at a management consultancy firm and a modeling agency, respectively. As the companies these sociologists studied similarly wished to remain unknown, both Rivera (2015) and Mears (2011) expanded their fieldwork beyond the companies, attending industry events and conducting interviews with employees throughout their respective sectors. Although this undoubtedly results in a higher volume of data, for me, this was a necessary precaution given the ethics of researching a workplace in a highly competitive industry.

As suggested above, I do not divulge the names of the large-scale conferences, and smaller events that my fieldwork took place at. The latter were mainly held by software workplaces, and some were spin-offs of the larger conferences I attended, i.e. they took place as separate events from the conferences. Moreover, certain aspects of the conferences and events I attended were video recorded by the organizers (e.g. keynote speeches) and promoted on social media. In such cases, organizers seemed to view me as an opportunity for potential promotion of the event and of the company organizing it, even after I had explained my role as a researcher and that they would remain confidential in my research. Considering that photos and videos were occasionally being taken by organizers and others, when I noticed this happening, and where possible, I asked the photographers and videographers to leave me out of their shots. At other times, I simply excused myself and stepped outside of the frame.

Moreover, in an effort to further protect the confidentiality of the field sites and people I studied, both at these events and at Zebra, I locked some of my social media accounts. For other social media accounts, I adjusted my settings so that I was less likely to appear in searches. As people who I researched knew my name and some of the details about my research, these actions were meant to prevent participants from attempting to connect with me on public online platforms (e.g. such as Facebook, Instagram, LinkedIn or Twitter) and from making any online mention of my research and the specific sites it took place at. Although this risk was low, I felt it was prudent to take these precautions.

Data Collection: Interviews

Following a social constructivist epistemology, the method I employ supposes that our worlds are given meaning through our social constructions of them, which are constituted discursively. Discourse can be located within a range of cultural phenomena as well as social relations including text, speech, conversations and more. Furthermore, discourse circulates certain values, and thus to study discourse is to listen and watch intently for values that may be common sense within the social context being studied. Considering my interest in discourse, semi-structured interviews allowed me to interrogate how self-improvement was negotiated by analyzing employees' discursive constructions, while informal interviews and participant observation helped to surface broad themes. As I have already outlined my approach to sampling, access and ethics for participant observation, I now turn to these topics in relation to interviewing.

Interviews: Sampling and recruitment

The interviewees I recruited work mainly in software development, product management, field sales and consulting roles, all career streams that tend to be highly compensated within the sector. Software development is the most highly valued career within the industry, particularly for those working in roles considered more technical and thus "close to the machine" (Ullman 1997: 1). That being said, the three other roles that I focus on are also highly regarded departments and among the highest compensated careers in the industry. For instance, field sales professionals tend to bring in the highest revenue clients, and their incomes are based significantly on commission, meaning that at times they yield salaries much higher than many software developers. Moreover, product managers are often thought of as mini-CEOs for their responsibility to actualize the vision for technology products. Finally, consulting professionals have roles that are similar to management consultants. Consultants analyze the value of company offerings and provide recommendations concerning how to create opportunities and efficiencies.

While most interviewees fall into these four career streams, there were some exceptions including two interviewees in finance, two in IT, and several in both customer support and HR. Additionally, the vast majority of the people I interviewed were at mid- and mid-senior levels, with a small handful who were at junior and senior leadership levels. It is important to note that there are instances in which it was necessary to alter the career streams of interviewees in my analysis, although this action was only taken in circumstances that I deemed it warranted (e.g. when the context provided made it obvious who the interviewee was). For this reason, I do not suggest that my research is reflective of the ways of being among people in separate career streams, but rather of people working in typically well-compensated professional roles across the industry. I acknowledge that this is a limitation of the present study.

Following Rivera (2015), the social location of interviewees is an important consideration in my sample. The group of people I have chosen to study is one comprised of people who are privileged, to varying degrees. Interviewees are privileged in the sense that they work within a glamourized industry,[xiii] and typically possess university degrees as well as well-compensated, full-time, permanent jobs within large software companies. However, multiple interviewees also occupy marginalized positionalities based on their identity and related intersections of their race, gender, gender identity, class and sexual orientation. I assert that it is precisely because the interviewees I study are relatively privileged that it is important to research their ways of being in the workplace and other professional settings. Such an analysis helps to assess how positionality bears down on subjectivity to influence for whom there are rewards for negotiating specific affective-emotional ways of being.

Furthermore, my research endeavoured to reflect a range of voices representing various lived experiences, from an intersectional rather than additive perspective (Bowleg 2008; Collins 1993; Crenshaw 1989). I attempted to recruit and oversample participants who are typically underrepresented in the industry including women, people of colour, people who identify as LGBTQ, individuals from lower socio-economic backgrounds, and those with disabilities. This proved challenging for a range of reasons. Firstly, it is often not possible to know all of the ways in which people may be underrepresented upon meeting them. Secondly, the industry is a highly glamorized sector and a barrier to entry is typically

an undergraduate-level degree, which places limits on how many people from underrepresented backgrounds make it into the sector. Thirdly, throughout the industry, the sector is predominantly white and male, meaning the sample of those underrepresented was a relatively small pool to draw from. Since people within this underrepresented sample have less privilege than the homogenous sectoral "norm," there are also greater ethical concerns concerning their participation in a study of this kind.

I recruited participants through stratified sampling from within Zebra, as well as through my attendance at conferences and events, and also by reaching out online. Referrals along with my educational and previous employment affiliations assisted me in gaining access to interviewees. This was important since people working in software tend to be difficult to recruit due to the culture of secrecy throughout the sector, and also as a result of the high number of networking requests many of them receive. Interviews ran from 40 to 120 minutes, and were typically an hour in length, with the exception of one informal interview that lasted only 25 minutes. They took place at times and locations convenient to participants. The 22 formal interviews were audio recorded and transcribed. For informal interviews, I took extensive notes during the interview, which were typed up immediately afterwards. For a small handful of these informal interviews, I typed notes on my laptop during the interview.

On a related note, the professionals employed within software companies in North America tend to be familiar with navigating informal, professional social contexts. Frequently, they must ascertain how to advance without the more conventional pathways found in sectors such as law, management consulting, or investment banking. In software, knowing how to navigate the informal is important for advancing in one's career. Indeed, a less studied aspect of professional conduct in software involves the relational-affective realm and the constitution of desirable workplace subjectivities. As discussed in the literature review chapter, a myriad of self-improvement discourses inform and instruct subjects on what it means to enact an ideal subjectivity in the industry. The subtext of such discourses is that certain ways of being will enable one to advance, if only individuals are able to cultivate self-knowledge and harness affect in desirable ways. Throughout this dissertation, I argue that the ways in which subjects are called to manage themselves in the workplace, and how they negotiate these calls, reveals an important facet of how

intersubjective power is both reified and challenged. Assessing how subjects respond to and negotiate the call to manage themselves through industry-specific self-improvement discourses gets at how power circulates within everyday professional settings of the software industry.

Interview protocol

As part of my interviews, I asked interviewees to walk me through their typical day from start to finish. This enabled me to not only get a sense of their schedules, it also began to provide me with an understanding of their most pertinent daily priorities, which pointed to their values. I then asked a series of questions to understand how they made sense of themselves as professional subjects. These questions were meant to surface the "how" of emotional self-management among software employees. I asked people to describe what they were like at work, any feelings they had about this, and what most successful people in their career stream were like. I also asked them if they had been asked to be certain ways at work, as well as questions about being and appearing productive, whether they felt fulfilled at work and if this was important to them, and, about the benefits and costs of remote work. Additionally, I inquired about how they navigated the professional-personal line of socializing with coworkers in various contexts. I also asked them a series of questions about vulnerability in the workplace, which I do not explore within this dissertation since it would have been outside the scope of the present study.[xiv] All of the questions I asked are appended. While I considered appending a list of selected interviewees, due to the extensive confidentiality issues outlined, this would not be appropriate. It should also be noted that while interviewees were answering my questions, they frequently brought in examples from other software companies they had worked at, which I encouraged. Since this is a study preoccupied with the situated culture of an industry, this interview approach fit into the aims of the research.

Ethical considerations for interviewees

Given that the software industry is a tightly networked sector based on informal networks and reputation economies, there were several ethical concerns regarding employees speaking with me. The main concern included having the content of interviews leaked. While it is unlikely that any such leaks would compromise interviewees' job security, such events would have constituted a gross violation of participants' privacy considering that several interviewees disclosed intimate and painful details of their lives. I took multiple measures to be vigilant about minimizing this possibility. To protect the confidentiality of participants, in places I altered interviewee demographics and any revealing details of their accounts of events and relationships. I also de-identified all data using generic codes in my transcriptions and field notes. In field notes, for instance, I assigned pseudonyms to people I was meeting with. In transcripts, if someone mentioned the company they worked for, I would write "[company]" or assign the organization a pseudonym. Finally, data was stored in locked files that require a password. It was not shared with anyone, with the exception of certain aspects of the data being shared on private servers with my primary and secondary supervisors.

To mitigate concerns specific to in-field interviews during participant observation, I introduced myself to employees as a researcher, and explained that my research involves observing what they say and do on a day-to-day basis. As consent is an ongoing process, I regularly reminded participants of my role. Moreover, in instances in which participants may have exposed confidential information about my field sites and/or the companies they worked for (i.e. trade secrets), I did not collect nor report on this in my field notes or elsewhere.

Considering that I was in the same space as Zebra's employees for several months, and attending many of their social events, another challenging aspect of these relationships was, somewhat ironically considering the subject of my inquiry, maintaining boundaries around my professional life. Some of my informants may have begun to view me as a friend and, in other circumstances, many of these individuals were people I would have liked to have friendships with outside of the research period. While I attended various events including after-work social events, I decided I would not have relationships with the people

I studied outside of these professional contexts. That being said, there were some informal interviews that were conducted with people within my own networks. As these networks include people I have worked with and those I know through professional and personal contexts, some of the informal interviews included people who straddle the personal-professional line for me, as well as those situated more in the personal realm. Regarding the latter, this included one friend and another acquaintance who both work in the sector and were willing to speak with me about their professional experiences. However, the vast majority of interviewees were people who I was meeting for the first time in the context of my research. Moreover, while the majority of my interviewees lived and worked in Vancouver and Toronto at the time of my research, there were also some participants who were based in cities outside of these contexts – and some outside of Canada – but all of whom had worked in Toronto or Vancouver in the recent past, and also those who had recently moved to these Canadian cities from other locales.

Data collection: Participant observation as a scavenging researcher

While based at Zebra for four-months, my role was that of a participant observer. I followed, observed, and sat among those working in the career streams that the study focuses on, which I have outlined. It is important to note that while my study focused mainly on four central career streams, many of the meetings I attended included workers located within various teams at the company, including finance, HR, customer service and marketing. Again, I also attended company-wide events, meetings, and initiatives. Regarding the latter, I sat in on leadership and other "teaching and learning" seminars, onboarding, lunch-and-learns, and post-work social events.

I took a similar approach to my participant observation at the two large-scale technology conferences and multiple smaller events I researched. At the conferences, I attended keynote addresses and various smaller talks, and also participated in workshops. The latter were, in particular, useful spaces to meet and recruit potential interviewees. I also explored promotional booths that were exhibited at the conference centers. Some of these included relaxation pods, which were set up as reclining chairs with large domes

overtop, impeding the sight of the sitter, and partially muffling sound. Other conference exhibits included on-site meditation sessions in the midst of bustling hallways. At both conferences and smaller events, I approached ongoing consent in a similar way to my participation at Zebra. That is, I introduced myself as a researcher who was collecting data at the conference or event, and asked participants to let me know that if there was anything they wished for me to avoid collecting data on regarding our encounter.

As a researcher, I found the social events at both Zebra and at industry conferences and events to be more challenging than the structured sessions (i.e. meetings, seminars and workshops). In these less structured social settings, it was more of a challenge to attempt to maintain a critical distance. This was because it was not uncommon for people to make inquisitive small talk at these events, not only asking questions about my research but also about my personal life and opinions on various topics. During these events I found my *own* emotion-management to be take up considerable energy. Evading questions and bridging to other topics drew on my previous career in strategic communications, but it also meant that, for the most part, I did not forge deep personal connections with the people I studied that extended beyond the research encounter. At times during these encounters, I let participants know that, to assist me in protecting their identities in my study, I was not able to connect with them on social media networks (for instance, when they offered to add me to LinkedIn or another social network). All of my interviewees were receptive to this, and it likely also communicated to them that I would not be staying in touch as I might otherwise if I had not been researching them. That being said, some of them indicated interest in my findings, and I let these people know that, if possible, I would send them a final version of my published thesis once it was complete. This, itself, bore down on the analytical choices I made and the analysis I conducted. Knowing that my interviewees would read and potentially see themselves in my final manuscripts led, I believe, to a higher degree of empathy, and to a deep awareness of my own participation in many of the discourses that I critique. On this point, it is important to note that in the present dissertation the intention is *not* to critique individual people. It is not to focus upon nor interrogate their personal psychology. Instead, my interest in discourse allowed me to listen deeply to what participants said, and the ways in which they said it. This interest also enabled me to

recognize patterns across accounts of participants, while paying attention to the ways in which these patterns intersected with industrial discourses.

For instance, in noticing that transparency was taken up as such an important value among participants, it was difficult not to notice its prominence in organizational frameworks, and in the imaginaries of "open" online products and indeed of the internet itself.[xv] It could be argued that transparency was also a discourse in configurations of space: open-concept offices and conferences, exposed ceilings, lighting that often lacked lamp shades. I found it intriguing to think about just how dominant certain industrial values had become. While understanding how industrial values configure physical space is a topic for a different dissertation, the ubiquity of transparency and other discourses sparked my interest in the connection between holding certain values industrially, and at an individual level. It generated a curiosity around attempting to grasp the ways in which my participants were, internally, understanding the self in relation to these values. I wondered, what does it mean to be transparent in one's professional life, in an informal industry that has long celebrated the entanglement of public and private realms? That question splintered into several versions that centered optimization and the agile model, and became the basis for this dissertation.

While at Zebra, I had access to some of the company's digital communications including its social media platforms where much employee communication took place, and its calendar platform. Additionally, one of the conferences I attended had its own social media platform, which was in use for the duration of the conference. I used this to connect with people, and to exchange information with people I had met, and monitored and collected data from it. I ended up deciding to avoid analyzing data from professional group-based social media platforms for the present dissertation – both at Zebra and the conferences I attended – and instead opted for the calendar to assess use of professional technology. The reason for this was an ethical one. Firstly, if I were to include quotes from a shared workplace platform, it could be rather easy to search for these quotes on the platforms and locate who said them and where. This would mean that I would have to substantively alter quotes to protect identities, which could change their meaning. Furthermore, since I was interviewing people at multiple software companies, I assumed that not all of these companies would use the same workplace social media platforms. For

these reasons, the calendar presented a more ethical platform to analyze, since all of the employees I interviewed used a shared, workplace digital calendar.

Moreover, all of my data have been pseudonymized with identifying details removed or altered. This is to protect the confidentiality of my interviewees, and the sites at which my research took place. Care has been taken to ensure that any modifications are representative of the data. Additionally, while the bulk of my participant observation took place at Zebra, it was strongly informed by the other sites my research took place at, and by the interviews I conducted with people working at various companies throughout the platform-based software industries of Toronto and Vancouver. Zebra is situated as part of a broader, multi-sited fieldwork that reflects on several key sites within the industry.

Throughout my fieldwork, my process was reminiscent to anthropologist Nick Seaver's (2017: 1) "scavenging" approach to ethnography, who also maintained a predominant interest in a broader culture despite having conducted fieldwork at a company. As noted by Seaver (2017), drawing on Marcus (1995), the scavenger traces cultural practices through following a heterogenous selection of clues through multiple locations. This is a particularly apt approach when one field site is not – and indeed cannot be – the single source of data collection. Seaver speaks about this approach in relation to studying algorithms, however, I am applying it in my research on professional subjectivity. He states:

> If our interest is not in the specific configuration of a particular algorithm at one moment in time, but in the more persistent cultural worlds algorithms are part of, then useful evidence is not bounded by corporate secrecy (Seaver 2017: 7).

Furthermore, this scavenging ethnography approach considers interviews part of the fieldwork, rather than being a separate or artificial setting created by the researcher. Considering that software companies tend to have user experience departments that typically include researchers, or UX professionals who have a research function as part of their role, my interviewees were part of what Jenny Hockey (2002) has referred to as an "interview culture" (cited by Seaver 2017). Although many of the interviewees did not work in user experience themselves, working in software, they would be familiar with this

facet of the business. That is, interviews are not novel to them and, if they have not conducted these themselves, it is likely that they have been interviewed or, at the least, know what they are and how they typically work. In fact, several of my interviewees noted that they had been previously interviewed. Some of the product managers also noted that they frequently conduct interviews themselves. Indeed, interviews become an aspect of "the flow of everyday life" rather than being an artificial situation with set, formal rules (Seaver 2017: 8).

Some of my interviews involved: accompanying participants for lunch or coffee at cafes near their places of work; conducting an interview from a bench at the beach near a participant's home; taking a ferry to visit a café on the opposite side of the city from where much of my fieldwork took place, near a participant's home; and, chatting in a local craft beer brewery with an executive who had recently left Canada to work abroad. Some interviewees insisted that interviews take place in their places of work. In other words, interviewees fit me in within time and places that were convenient for them – that is, in temporal and spatial limits that fell within and outside of their workplaces and typical workdays – which I encouraged. At times, interviewees related to my research interest in them amusedly. On one occasion, at the beginning of an interview, an interviewee jokingly leaned towards the audio recorder, deepened his voice and stated, "This is [full name] on [full date]." I deleted this file immediately and began a new recording. Fortunately, this happened at the beginning of the interview.

I triangulated my findings with press releases, e-blasts through industry mailing lists, and social media accounts of industry leaders. As Seaver (2017) notes, there are "arguments, technical visions, and pragmatic bricolage" within such varied data sources. I began to find, for instance, echoes of similar discourses between social media posts and biographies of industry leaders, and the statements my interlocuters made about ideals within the sector. One such example is the phrase "strong ideas loosely held," which was mentioned by two of my informal interviewees, and found on the social media page of an industry leader as well as in thought-leadership bylines. While such a phrase might seem vague, and indeed it is, it also began to materialize as a unifying cultural sentiment that relates to the "agile" way in which software professionals were encouraged to manage their inner lives. Such cultural threads cannot necessarily be pinned to only one office or

workplace culture – indeed, none of the individuals who spoke of this particular aphorism worked at the same company. Instead these threads pointed to clues that comprise parts of the bricolage that constitutes a scavenging approach to ethnographic data collection.

Methods of data analysis

To protect the confidentiality of interviewees and the specific contexts that my research took place in, I have altered some details about the participants and environments that I describe. In fact, due to the challenges involved in protecting identities and honoring confidentiality, I have in places employed the use of composites, through which certain employees' stories have been combined. While I acknowledge that this may compromise the ethnographic accuracy of some of the data, I assert that it is a necessary step. In doing so, I follow Richard Sennett and Jonathan Cobb's (1998) approach. Here, in certain cases in which two or more people made statements on an issue that conveyed a very similar sentiment to one another, I portrayed them as coming from one person. I did not alter quotes, except in one case in which a personal detail provided in the quote would have been identifying. I employed the use of composites only in the "optimization" chapter, because this chapter in particular provides details about people's lives that may be revealing for them. This approach also underscores my interest in the structures that inform people's lives, rather than in the individual psychologies of the people involved in my study.

All data was coded and analyzed using thematic analysis. Here, data was read through multiple times, and a coding framework was developed and adjusted. As part of this process, I first created a hand-written, rudimentary coding framework. The framework was based on broad, preliminary themes I noted as a result of my ongoing data analysis of field notes and transcripts. Then, once clearer themes began to take shape, I created a more robust coding framework, which was adjusted throughout my data collection period. Once my data collection was complete, I added the finalized coding framework to NVivo and coded all of my transcripts and field notes using this software. This framework is appended, along with my informed consent sheet.

The reason for the use of NVivo was twofold. Firstly, the volume of data I had collected was vast. While it sufficed to read through fieldnotes and transcripts while in the field and to draw out key themes using an excel file, after all of the data was collected I was left with hundreds of pages and needed a systematic means of sorting through it. Secondly, using NVivo helped me to more visually, and quantitatively, grasp the incidence of themes. Although I did not produce a quantitative analysis, it was useful to be able to search certain codes and see that, for instance, theme X came up 15 times in both participant observation and interviews. I further review the analytical approaches I take to my two main data collection methods below. I must also note that throughout my empirical chapters, I provide fieldnote excerpts in italics, and separate these paragraphs out from the main texts.

Participant observation: Analysis

Thematic analysis allowed me to identify major themes and patterns within my field notes during participant observation. I apply a modified version of Jennifer Attride-Stirling's (2001) approach, in which I have identified codes based on my theoretical interests and salient issues within the text. As noted above, I identified themes and then created a coding framework including overarching codes and sub-codes. These were continually adjusted throughout the duration of my fieldwork. Similar to Rivera (2015), I analyzed my data throughout my fieldwork in addition to when it was complete, which allowed me to identify themes and revise areas of focus and questions accordingly.

Furthermore, as field notes are written by the researcher, discourse analysis is not an appropriate method of data analysis for participant observation, except in cases in which researchers audio-record their fieldwork or transcribe live interactions verbatim. If I were conducting a socio-linguistic study of gender and discourse similar to Louise Mullany's (2007) study of corporations, it would have been necessary to audio record interactions. Given that my focus was instead on culture and discourse, it was not necessary to record all interactions in the field. Yet, having at least some verbatim transcriptions allowed me to conduct discourse analysis on certain aspects of my fieldwork and to better assess what certain discourses *do*.

Analysis of texts and interviews

As social actors, people are continuously orienting to various contexts, and constructing discourse to fit these occasions. It is part of the analyst's role to identify interviewees' orientations and their discursive problems. By identifying problems within discourse, analysts can work backwards and assess how what is communicated may act as a solution. Applying Gill's (1996, 2000) approach to discourse analysis – which combines Foucauldian poststructuralism, rhetorical analysis, and critical linguistics, and is strongly informed by discursive psychology – I assess key texts that circulate industrial discourses. Moreover, following scholar Christina Scharff (2011), I use discourse analysis that draws on poststructuralist discursive psychology and conceptualizes of language as having an active role in the construction of reality. This approach asserts that subjectivity is constituted via discourse (Wetherell & Potter 1992), and also that structural forces inform what is, and indeed what can be, said (Scharff 2011; Wetherell 2012). The analysis I employ in my fourth chapter draws heavily from Gill's discourse analysis. Also, similar to Scharff (2011), I complement this approach with affect theory drawing from Ahmed (2004). Specifically, Ahmed's (2004) approach to affect "regards emotions as simultaneously social, material, and psychic and explicitly challenges any assumption that emotions are private" (Scharff 2011: 211).

In addition, in my interview and field notes analysis in chapters five and six, I have used thematic analysis to identify core themes and, with the transcribed interviews, I have again applied discourse analysis. My analysis of texts and interviews began by searching for patterns in the data to identify variability and consistency within and between accounts. After analyzing texts and transcriptions, alongside my analysis of field notes, I formed tentative hypotheses about the functions of particular discourses to assess what certain accounts achieved. I paid particular attention to the ways in which interviewees positioned themselves as good professional subjects, which at times included self-deprecating statements and humour.

Gill (1996) argues that discourse analysis allows researchers to assess how relations of domination and subordination are reproduced and justified. Assessing discourse can help to show which values are being enacted by identifying what passes as

common sense (Jørgensen and Phillips 2002). It is important to note that the tradition of my discourse analytic approach yields highly subjective readings of topics of inquiry. Thus, I treat my data and resulting publications as discourse that I have created, and that itself can be critically assessed. In the next section, I provide an overview of remaining ethical considerations and those related to my own positionality.

Positionality and additional ethical considerations

Since I am not a software engineer, developer or data scientist – and given that I am a social science researcher completing a PhD – I was considered an outsider at Zebra and within industry settings. As Ellen Ullman (1997) states, when networking in the industry, one of the first things people try to assess about each other is whether or not they have technical backgrounds. The fact that I do not have a technical background, and am also an industry outsider was, in some senses, advantageous. It enabled me to ask pointed questions about the topics being discussed during participant observation. Had I been more of an insider, there may have been repercussions for asking seemingly naïve questions. Instead, my participants answered most of my inquiries enthusiastically, and encouraged me to ask for clarifications on the topics they were discussing. It is also important to note that as a doctoral student researching professional elites who wield more power, resources, and influence than myself, I was also doing what Laura Nader (1969) refers to as "studying up." In this way, the relationship between my positionality as a researcher and those within the community I studied is unconventional, when compared to the anthropological norm. As anthropologist Mitchell Sedgwick (2017: 85) argues, "studying up" in a corporate setting means that powerful participants may be able to control how their labour is perceived by researchers, which can affect results. I could not control what participants told me, nor how they behaved or interacted in my presence. At the same time, conducting my research over several months, and in multiple domains, has been an important aspect of gaining trust and also of attempting to ensure that participants habituated to my presence. Furthermore, given that I have worked for nearly seven years in strategic communications, some of my more junior-level interviewees in fact had less

work experience than I did. In such cases, it is difficult to clearly decipher whether I was indeed "studying up."

As a doctoral researcher studying at LSE, and as a middle-class white, cisgender woman with considerable access to upper-middle and upper class networks in Canada, I also have significant amount of what Pierre Bourdieu (2001) refers to as cultural and social capital. This assisted me in fitting in at my various field sites, and among interviewees. Moreover, another aspect of my positionality involves identity and participants' willingness to open up to me. I proceeded in my fieldwork with the understanding that interviewees would provide varying accounts depending on their own positionality, functional orientations, the context, and our rapport.

In terms of my day-to-day appearance, I aestheticized myself as I would have outside of the context of fieldwork, and maintained an appearance that is typical for me on a day-to-day basis. This would likely be classified as an appearance of normative femininity (O'Neill 2018). I appeared somewhat different from my participants in that I did not wear jeans, nor sneakers, which many of them did. I was not trying to fit in by blending in through the way that I dressed. I often wore slacks and a jumper or a loose-fitting cardigan, and black shoes. Although I did not go to the extreme of wearing a suit in such informal spaces, I did want it to be apparent that I was not an employee, as a reminder of my role as a researcher. Furthermore, during my fieldwork, I both introduced myself and was introduced as a researcher interested in inclusion. Considering this introduction, my participants were undoubtedly already primed to be more aware of how they spoke about issues pertaining to inclusion and related to positionality. In fact, one of my participants told me he thought I should not tell people about my research interest, as it would too greatly influence the way people would act around me. On this I believe he was not wrong that it influenced how people acted. Yet, it made inclusion top of mind for many of the people I spoke with, and in doing so it provided me with clues around how they understood it. I explained to participants that my study was broadly centered upon how inclusion was negotiated, that I wanted to hear about people's experience of working in the industry, and that I was interested particularly in the personal-professional boundary at a time in which the line between work and home was somewhat blurred. Early on in my fieldwork, I noticed that when people began relaying their experiences there were many echoes of the

same self-improvement discourses between accounts. There were attempts at framing thoughts in particular ways, at trying to feel certain things more than others, and at understanding the self in a way that was forward-looking and "growth" oriented. What I also noticed was that, at times, there seemed to be a struggle in doing so. That people would catch and correct themselves, even while speaking to me. I began to closely attune to these moments, and often made note of them as a reminder for my analysis. Such notes in the field and during interviews proved invaluable when later conducting my more comprehensive analysis. In the subsequent chapter, I begin my empirical analysis by conducting discourse analysis on key texts related to the agile model, and discuss a central industrial discourse in software that strongly informs the values discussed in the remaining chapters.

Chapter 4

The imperative to be agile in software production:

Individualistic collaboration, permeability, illumination and "mushy" affect

Introduction

It is difficult to overstate the prominence of the agile model in North American software production. In fact, among the software employees I interviewed, the vast majority worked for companies that used the agile model to inform everyday organizational practices, from 15-minute daily meetings to working in "sprints," or work cycles that run on intervals of one to several weeks.[xvi] Indeed, the agile model has been used at companies within and beyond the technology sector including at Twitter, Walmart, Lockheed Martin, ExxonMobil and Verizon (Nyce 2017). At the time of writing the present chapter, job postings for "Agile Coaches," people who train and instruct employees on how to follow the agile model within organizations, were found at multinational banks and insurance corporations, e-commerce and financial services companies, and even national pension organizations.[xvii] What this wide reach suggests is that the agile model has appeal for those working within and beyond the technology industry. In fact, the agile model is even entering the private realm. Certain self-improvement texts have begun to use the Agile Manifesto as a model for family management. These texts locate the family as the "team" and instruct family members to take up practices that the agile model uses in workplace contexts e.g. holding daily 15 minute meetings (Miltner 2020).

Indicative of the popularity and appeal of the agile model, a vast literature has emerged over the last two decades around how best to implement it, and assessing its efficacy in terms of the productivity of teams (Ambler 2002; Beck et al 2001; Boehm & Turner 2005; Estler et al 2013; Highsmith 2004; Procter et al 2011; Schwaber 2004; Tendedez et al 2018). The agile model is often constructed in this literature as a framework

for teams that brings specific practices for meetings, project cycles, and collaboration. Yet, I assert that it also brings a powerful discursive framework to encourage team cohesion, compel certain ways of being, and evoke specific affects towards work in software and, increasingly, beyond the sector. This is an example of what Chiapello and Boltanski (2018: 309) have argued about how organizations have come to expect workers to "control themselves, which involves transferring constraints from external organizational mechanisms to people's internal dispositions." Such expectations can reach deep within, specifying "feeling rules" and calling workers to express emotion and even *feel* in particular ways (Hochschild 1983: 288). Thus, how the agile model instructs people to conduct themselves can reveal aspects of the constitution of professional subjectivity in software. In particular, it provides a lens into the "ideal" subject that is called forth discursively within the industry. Moreover, the values that are imbued within discourses of agility materialize within various industrial contexts. Such values inform taken for granted understandings, or common sense about the ways that work is typically organized as "agile."

In the present chapter, I analyze a set of texts that have strongly informed the agile model. This chapter engages a discourse analysis of industry texts I consider central to professional cultures of software, with the aim of examining the values inscribed within the agile model. Specifically, I assess the *Agile Manifesto* (2001) website, which acts as an expert guide on the agile model in relation to contemporary North American software production. The texts on this website were developed during an exclusive conference of 17 software practitioners considered leaders in the field. This conference was held in Snowbird, Utah, in early 2001, and was also a ski trip for these industry leaders, according to the Manifesto's (2001) history webpage. The year 2001 is significant to mark a "new" model of software production. This was just one year after the greatly anticipated year 2000. Prior to 2000, and especially in 1999, rumours of the year 2000 problem, or "Y2K," suggested that the millennial would bring about multiple errors in formatting and storage of data located in machines that were accustomed to dates in a pre-millennial era. Despite being widely anticipated, these issues did not materialize. Yet, so-called disruption *did* materialize in 2000 through the bursting of the dot-com bubble of the 1990s. In fact, the year 2000 ended with most Internet stocks having shrunk by 75 per cent, with losses of more than $1.7 trillion USD (Kleinbard 2000). In this context, the Agile Manifesto was

published online in February of 2001, and positioned itself as a means to navigate what it describes as a "turbulent environment" and a "new economy."[xviii] Considering this broader industrial and economic context, it is perhaps unsurprising that the Manifesto – having been launched by 17 software industry leaders – was so readily embraced within and beyond the tech sector.

It is important to note that the agile model is what scholars Alessandro Piazza and Eric Abrahamson (2020) might refer to as a "management fad and fashion," or management concepts that describe novel and efficient ways to manage organizations. In fact, the Agile Manifesto authors can be thought of as what Piazza and Abrahamson (2020: 271) would describe as "hero-manager gurus," defined as "organizational decision makers that derive their authority from managerial experience." Such "gurus" are influential in their professional communities since they are able to draw from practical experience that is highly valued, particularly in the tech sector. Yet, although the agile model is indeed a "management fad and fashion" and, similar to others, it will ebb and flow in its popularity, it is important to note that this particular management concept rose to prominence alongside the digitization of professional life. As pointed out by Piazza and Abrahamson (2020: 278), the digitization that has taken place over the last two decades including the "widespread diffusion of the Internet" has complexified the process through which management fads are circulated within media, organizations and professional communities. Considering that the rise of the agile model so closely aligns with that of digitization – a shift that many of the model's experts took part in shaping – it is difficult to predict how this concept might be taken up differently in future. At present, the cultural focus on resilience may be an important aspect of the agile model's long-standing popularity.

I consider the Manifesto itself to be a discursive formation that is part of the broader socio-cultural assemblage that is the agile model, which sets the parameters of the imperative to be agile, and also of the "ideal" software subject. With this chapter, I respond to a call by critical scholars of technology use and work to use close reading to assess the complex relation between technology as artefact and the process of its design and production (Harmon & Mazmanian 2013), focusing upon the latter. In the analysis below, I interrogate the defining features of discourses of agility within the Agile Manifesto to offer

insights about the values of the mainstream software sector and the broader culture in which it is situated. First, I provide brief background for the agile model. Second, I offer a discourse analysis of the "Agile Manifesto" (2001) to uncover the dimensions of the imperative to be agile, which constitutes the remainder of the chapter. While I recognize that there are numerous ways to conduct discourse analysis, and multiple epistemological traditions, I follow the approach of scholar Rosalind Gill (1996, 2000) and employ an analysis that draws from poststructuralism, critical linguistics, and rhetorical analysis. This approach helps to disentangle the cultural processes through which what is "out there" permeates our interior lives and influences our self-understandings (Gill 2011: 66). Considering that culture and subjects have a permeable relationship and continuously influence one another (Ahmed 2004; Gill 2011), Gill's model of discourse analysis enables an exploration of how the Manifesto, as an expert resource, exhorts subjects to make sense of themselves through a specific regime of industrial power. This method draws from Foucault in understanding power to be productive. Throughout, I apply the Foucauldian notion that processes of subjectivation help employees to accomplish certain things, while doing so within frameworks fused to the normative structures that the industry is situated within. Finally, using discourse analysis to investigate the Agile Manifesto enables an understanding of how the agile dimensions "work" for subjects discursively i.e. what these dimensions call them to do, and why enacting and negotiating such calls may bring forth certain rewards. This second part of the chapter includes four sections. Each investigates a distinct, yet often overlapping, discursive dimension of the imperative to be agile in the software industry. The dimensions include 1) individualistic collaboration, 2) permeability 3) illumination, and 4) mushy affect. While the analysis focuses upon the call to be agile, through compelling specific ways of being, it also simultaneously constructs an ideal agile subject. Overall, I suggest that the agile model is a discursive formation that informs the culture of software production. This formation calls forth specific ways of understanding, feeling and expressing that, as I show in the following chapters, inform and shape how individuals make sense of their professional selves. Below, I begin by providing brief background on the agile model.

The agile model: Background

The agile model is a socio-cultural assemblage that instructs software teams on how to organize themselves and their day-to-day work. This model brings discourses that circulate through expert resources and other cultural products such as books, videos and social media posts. These discourses inform the sets of organizational practices that are thought of as constitutive of the agile model. It is important to note that since the turn of the 21st century, software workplaces have increasingly moved from organizational models constructed as "heavy" and "planned," and commonly referred to as "structured," to models constructed as "lightweight" and "adaptable," termed "agile" (Gurses & van Hoboken 2017: 6; Estler et al 2013). The structured model has been described by both management scholars and practitioners of software as useful for applications with requirements that are unlikely to be subject to major changes, while the agile model is understood to be useful for projects that involve changing requirements (Estler et al 2013; Ambler 2002; Schwaber 2004; Highsmith 2004). The agile model is a multi-faceted discursive formation that responds to the political economic context of neoliberalism and purports to enable cost-efficiency, and better functioning software products through responding to the changing "needs"[xix] of users.

Discourses about the shift from structured to agile models often highlight the political economic context of the software industry in justifying the need for a project framework that presupposes continuous change. Until the 1990s, structured processes were predominantly used (Gurses & van Hoboken 2017). Meanwhile, in a market climate that has increasingly been understood to be volatile, insecure and uncertain, agile has been popularized through a discourse that the agile model can better address these conditions. In fact, the appropriation of the agile model corresponds to the rise of neoliberalism, as well as to the aftermath of the bursting dot-com bubble in the early 2000s. Furthermore, as discussed in the literature review chapter, neoliberal rationality can be located in attempts to remake subjectivity. In fact, industrial and organizational discourses have, since the 1960s, compelled subjectivities that emphasize an enterprising, autonomous self that is urged to continuously remake itself in the image of the market (Chiapello & Boltanski 2018; Rose 1992, 1998). Such discourses include affective components, instructing

employees not merely to conduct themselves in certain ways, but to adopt specific feeling rules, and cultivate particular feelings in the process. In the present analysis, I show that the imperative to be agile is situated within the psychological turn in neoliberalism, and is inscribed with specific affective registers.

A discourse analysis of the Agile Manifesto

In the following sections, I investigate the imperative to be agile through providing a discourse analysis of the three webpages on the Agile Manifesto website that I consider most pertinent. These include:

a) "*Manifesto for Agile Software Development,"* the central Manifesto webpage that conveys the four values (lines 01-09), referred to as the "Values" throughout the present chapter;
    - Visit https://agilemanifesto.org/
b) "*Twelve Principles of Agile Software,"*[xx] which provides a list of "principles" (lines 10-40), referred to as the "Principles" throughout the chapter; and,
    - Visit https://agilemanifesto.org/principles.html
c) "*About the Manifesto,"* which provides an account of the historical context of the Manifesto written by one of the signatories, Jim Highsmith (lines 41-141 in the appendix). This webpage is referred to as the "History" throughout the chapter.
    - Visit https://agilemanifesto.org/history.html

Methodologically, I treat these texts as resources that work together and build off each other discursively to accomplish certain rhetorical aims in constructing the imperative to be agile. It is important to note that the discourse analysis that I employ does not seek to offer commentary on the motivations or intentions of the authors. Instead, I take the imperative to be agile in software production as the object of my analysis, and assess the ways in which the text constructs this imperative, and how it in turn structures the parameters of the "ideal" agile subject. The texts are as follows:[xxi] [xxii]

Text 1

Manifesto for Agile Software Development

01 We are uncovering better ways of developing
02 software by doing it and helping others to do it.
03 Through this work we have come to value:

04 Individuals and interactions over processes and tools;
05 Working software over comprehensive documentation;
06 Customer collaboration over contract negotiation;
07 Responding to change over following a plan.

08 That is, while there is value on the items on
09 the right, we value the items on the left more

Text 2

Principles behind the Agile Manifesto

10 *We follow these principles:*
11 Our highest priority is to satisfy the customer
12 through early and continuous delivery
13 of valuable software.
14 Welcome changing requirements, even late in
15 development. Agile processes harness change for
16 the customer's competitive advantage.
17 Deliver working software frequently, from a
18 couple of weeks to a couple of months, with a

19 preference to the shorter timescale.
20 Business people and developers must work
21 together daily throughout the project.
22 Build projects around motivated individuals.
23 Give them the environment and support they need,
24 and trust them to get the job done.
25 The most efficient and effective method of
26 conveying information to and within a development
27 team is face-to-face conversation.
28 Working software is the primary measure of progress.
29 Agile processes promote sustainable development.
30 The sponsors, developers, and users should be able
31 to maintain a constant pace indefinitely.
32 Continuous attention to technical excellence
33 and good design enhances agility.
34 Simplicity--the art of maximizing the amount
35 of work not done--is essential.
36 The best architectures, requirements, and designs
37 emerge from self-organizing teams.
38 At regular intervals, the team reflects on how
39 to become more effective, then tunes and adjusts
40 its behavior accordingly.

Text 3

Text 3 is included in the attached appendix due to its length.

Authority and discursive force in the Agile Manifesto

Before reviewing the discursive dimensions of the Manifesto, it is important to note four discursive strategies that run throughout each of the three texts. These include firstly how the authors establish themselves as credible, secondly how the texts' organization helps to make the Manifesto persuasive, thirdly the vagueness that acts as strategic flexibility, and fourthly the gendered connotations of the imperative to be agile. In terms of author credibility, the Values text opens with, "We are uncovering better ways of developing software by doing it and helping others to do it" (lines 1-2). The use of the words "uncovering" and "doing" act as rhetorical devices that assert that the values put forward by the Manifesto have been discovered through "doing" the work of software development. This establishes the authors as practitioners. The fact that they are "uncovering better ways" through "doing it" creates a practical legitimacy for their claims. Additionally, in this first line the use of "ways" rather than "way" suggests that the agile model is flexible – there is not only one way of applying it, but multiple "ways." This is where the text derives an aspect of its rhetorical force. As the text suggests no single "way" to be agile, it escapes criticism in the event that it fails to work well.

The texts' organization contributes to its discursive force. Within each of the four values of the Manifesto, the items on the left are constructed as that which must avoid a preoccupation with items on the right (see Text 1):

- "Individuals and interactions over processes and tools"
- "working software over comprehensive documentation"
- "customer collaboration over contract negotiation" and
- "responding to change over following a plan."

Setting up the four values so that the items on the left are valued more than those on the right constructs agile as superior to, and more relevant than, models that preceded it, such as the aforementioned structured model. Considering that the items on the right are still said to have value, there is not a complete rejection of these items. Instead, there is a clear

ranking of the set of items on the left as more valuable than those on the right. This ranking is significant, as it acts as a "disclaimer" (Hewitt & Stokes 1975 as cited by Gill 2000), warding off potential criticism of the authors. Rather than an altogether rejection of a previous set of values, here, the Manifesto offers a reordering of priorities based on what has worked through experience or the "doing." The discursive force here is the framing, which suggests that rather than making a bold claim, the authors are offering one that is sensible and balanced. Furthermore, although each of the values constructed as "lesser" can take on multiple meanings, what is indisputable is that all four are positioned as that which is not "agile." In fact, in Text 1, the items constructed as "more" valuable are at least one full font size larger than the other set of values. This sizing difference helps to visually juxtapose the "more" valuable items against the lesser.[xxiii]

The Manifesto's language is characterized by vagueness, which can be noted throughout the three texts. For instance, in the second value within Text 1, "working software over comprehensive documentation," a "working" online product(s) is being juxtaposed against a thorough approach to an administrative task. Yet, the value does not specify who the software must work for, nor to what ends it must work. It also does not articulate in which cases "documentation" may be required, versus instances in which it is less necessary. The inexplicitness evident within this value runs throughout the Manifesto texts, and renders ambiguous precisely who and what they address. Indeed, the fact that the terms in the above value have no clear referent makes them highly flexible discursive categories. As Gill (2000: 184) has noted, when "systematically deployed, vagueness can constitute an important rhetorical defence precisely because it provides a barrier to easy challenges and to the initiation of rebuttals" (citing Drew & Hold 1989, Edwards & Potter 1992). Vagueness enables speakers to deny concrete meanings and thus escape associated criticism. In the case of the Agile Manifesto, vagueness helps to establish agile as flexibly authoritative. Additionally, while the items in the second value lack well-defined referents and seem to have little overlap, the text suggests that there *is* a direct comparison to be made. Rhetorically, the text constructs "working software" as a process that must avoid a preoccupation with "comprehensive documentation" in order to be agile. This rhetorical device is evident throughout each of the four values, making similar discursive accomplishments.

In fact, read together, the four less valuable items carry connotations of corporate administrative functions and bureaucracy. Here, the lesser ranking of "processes and tools," "comprehensive documentation," "contract negotiation" and "following a plan" together suggest that to be agile involves a disavowal of certain administrative tasks and bureaucratic systems deemed burdensome. These allegedly non-agile items become imbued with meanings around being tiresome, excessive and unnecessarily thorough. These meanings are reinforced within the History text, which states that practices inspired by the agile model "define a developer community freed from the baggage of Dilbertesque corporations" (line 79), bringing forth connotations of being heavier than is necessary, weighed down by bureaucracy and an old way of doing things.[xxiv] Non-agile organizations are referred to as those that lead to "make work" projects and "impose irrational demands through the imposition of corporate power structures" (line 91-92). In constructing non-agile organizations structured by bureaucracy as heavy, weighed down by unnecessary baggage, this discourse suggests that the agile model – constructed as non-bureaucratic – is conversely light.

Finally, a masculine notion of agility threads through the three Manifesto texts. As a discursive concept, "agile" has connotations of lightness, flexibility and fluidity, all of which carry feminine meanings. Respectively, these terms offer connotations of women as typically smaller in stature than cisgender men, malleable, and more easygoing or apt to "go with the flow." At the same time, the positioning of "agile" as that which enables "aggressively" (line 94) moving into a new economic era of web-based business again imbues the agile discourse with a more masculine orientation. Not only is to be agile constructed as aggressive, in the History text it is framed as that which will "scare" those who are conceptualized as stuck in a previous model. Thus part of the discursive work that "agile" does in this text is to recast more feminized connotations of agility in masculinized terms. Such terms suggest that it is necessary to "move aggressively" towards agile models to adapt to a new era of e-commerce (line 94). Moreover, the fact that such an "aggressive" move "scares the begeebers […] out of traditionalists" (line 97-98) also frames those who use non-agile models as individuals who are fearful and nervous about change, in contrast to the "agilites" (line 55) who embrace it. As mentioned previously, all three texts disparage bureaucracy and administration, in favour of processes that are constructed as "agile."

The discursive dimensions of the imperative to be agile in software production

The Manifesto texts draw on the constructions outlined above to offer a specific, "agile" form of collaboration. While collaboration is a concept conventionally understood to be feminized (Abbate 2012), the Manifesto conveys the idea of collaboration in masculinized and individualistic terms. This construction renders collaboration a team-based pursuit that fits into the frame of the "ideal" agile subject of software production.

1) Individualistic collaboration

As we have seen, the Manifesto texts repudiate administration and bureaucracy. A look at the historical manifestations of these constructions helps to reveal the legacy of this repudiation, and the values that undergird it. In the World War II era, rapid technological advancement was taking place in North America, and military scientists such as those at the MIT Radiation Lab were living and working communally (Turner 2006). There were few boundaries around their professional and personal lives, and also concerning their specific jobs (Turner 2006). At this time, collaboration eclipsed bureaucracy in an effort to win the war. Yet, at the same time that the collaborative spirit was infusing lab culture, gendered stereotypes about software production were emerging.

Women played an important role in the war effort, particularly in the realm of software production. In a period in which software production involved taking extensive notes, or documentation, and sharing these with teammates in the spirit of efficiency, many (women) secretaries were deemed to have a desirable skillset for the profession, and were recruited to software (Abbate 2012). Moreover, Abbate's (2012) investigation of the gendered history of North American software production notes that texts considered foundational among practitioners centered feminine characteristics as desirable. These characteristics were centered in the texts through discourses that "mirrored gender stereotypes" without explicitly framing these as gendered (Abbate 2012: 95). One example

is Gerald Weinberg's (1971) text, which argued that the notion of an individualistic developer was detrimental to software production (cited by Abbate 2012). Weinberg (1971) framed the individualistic developer trope – which has been widely represented as masculine – as "egotistical" and argued that egalitarian teams required "egoless programmers" who were cooperative and apt to share their work (Abbate 2012). In doing so, Abbate (2012) suggests that he was urging developers to orient toward a more collaborative and thus feminine way of being in terms of teamwork.

In the Manifesto, this mirroring of gender stereotypes can be noted through the simultaneous emphasis on collaboration and individualism. The Manifesto retains the masculinized ideal of the individualistic developer in software, while orienting this ideal towards collaboration via teamwork. In diminishing "comprehensive documentation" (line 5), the Manifesto Values text gestures towards women's participation in programming, which – in the WWII era – held secretarial and thus feminine connotations. At the same time, the notion of collaboration as desirable is reinforced throughout the texts, yet, it is constructed in a way that centers *individualism*. This construction is accomplished through the Manifesto's assertions that those who are "agile" are "independent thinkers" (line 60) in the History text, and through a centering of "individuals" (line 4) in the Values text. Indeed, the first value of the Manifesto, "individuals and interactions over processes and tools," gestures towards teamwork by centering individuals interacting, yet, the word "team" is not used. Instead, the first word of the opening and thus most prominent value in the Manifesto is "individuals."

Relatedly, the History text establishes the signatories as "organizational anarchists" (49) and anti-traditionalists. The text states that the signatories are a "group of agilites" who were not expected to "agree on anything substantive" (lines 55-56). Rhetorically, this statement lends further legitimacy to the agile model put forth by the Manifesto, which is rendered even more credible in a context in which the signatories typically agree on little else. It also reveals a competitive spirit at the heart of the Manifesto's conceptualization of what it means to be "agile." Taken together, these constructions, which center individualism, are reminiscent of the trope of the software developer as individualistic, and also of what scholar Thomas Streeter (2015) has described as Silicon Valley's "romantic individualism."[xxv] Throughout the Manifesto, the celebration of the individual, of

"organizational anarchy" and independence point to individualism as a prominent feature of what it means to be "agile."

In fact, within the Manifesto, the discourse of "collaboration" builds on that of individualism in a way that enables it to be imagined as individualistic. The Manifesto's fifth principle states, "build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done" (lines 22-24). The call to trust "motivated individuals" to "get the job done" centers an individualistic sense of autonomy. Yet, the call to autonomy is later constructed in the Manifesto principles as one that is team-based. The 12th principle states, "At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly" (lines 38-40). It is the *team's* "behavior" that is being focused upon here, rather than the behavior of individuals within it. This formulation urges subjects to take up a team-based orientation. This urging can also be noted in the 11th principle, which states "the best architectures, requirements, and designs emerge from self-organizing teams" (lines 36-37). If a team is typically composed of several people, how could such a team be "self-organizing" when "self" connotes only one? The notion of "self-organizing teams" suggests that in software production, the team becomes its own unique "self." This principle urges developers to understand themselves as inseparable from the team and blurs the line between team autonomy and individual autonomy. The text fluidly shifts between conceptualizations of "autonomy" as both individual- and team-based. The aforementioned emphasis on the "individual" is one of the ways in which the discourse about team autonomy is substantiated as a discursive claim. Here, the text exhorts software developers to orient towards their specific team and configures this orientation as autonomy.

The metaphor of the agile team as an athlete's body is mobilized to hail team members to take up an agile subjectivity in software. Within agile teams, each team member can be thought of as a different limb, all with the goal of working in unison as one fast, lightweight, nimble body (Gillies 2010). To be agile is to move quickly, with smooth coordination, dexterity, purposefulness, and control alongside a lightness of touch (Gillies 2010). For the agile subject, the metaphor of the agile team works to retain the masculinized ideal of individualism in software, while orienting this ideal towards a team-based or collective subjectivity. In fact, scholar Christoph Neubert (2015: 34) has argued

that the agile model compels software developers to conceptualize of themselves as part of a team-based "collective subject." Yet, in the discourse of agility in software, the team is not only constructed as a collective subject, but as an *enterprising* collective subject. If individuals possess a collective, team-based subjectivity, they orient cognitively and affectively towards what is best for the team, an entity that creates market value for the corporation. Through reimagining the team as the collective subject, the discourse of agility enables the individualistic figure of the software engineer to predominate, while emphasizing the collaboration that has long been constructed in the sector as efficient.

Overall, the texts cast documentation-focused collaboration in software production as passé and inefficient, indirectly alluding to women's roles in the history of software production, and to the figure of the secretary. Simultaneously, "collaboration" is discursively reimagined through the notion of team-based autonomy. This reimagining blurs the line between individual and collective "autonomy," compelling an orientation towards the team as the collective subject. In doing so, the text appeals to a masculinized sensibility that incorporates the trope of the individualistic developer through orienting to "autonomy" collectively. This orientation is closely related to "permeability" in the discourse of agility.

In fact, regarding the emphasis on individualistic collaboration within the Agile Manifesto, there is a similar discursive tool at play in many popular representations of tech's wealthiest and most powerful CEOs such as Mark Zuckerberg, Jeff Bezos and Elon Musk. The figure of the individualistic trope predominates in representations of these CEOs, alongside a friendly competitiveness. Yet, as scholars Alison Winch and Ben Little (2021) have shown, the friendly competitiveness found within cultures of software production – and among its most powerful CEOs – can be strategic. Such competitiveness can deflect attention away from the collaboration between companies, including for industry lobbying (Little & Winch 2021). While the popularized discourse about these CEOs celebrates individualism (Streeter 2015), the discourse within professional software settings urges for a collective orientation – not simply to one's team nor company, but, at the CEO level, to one's industry.

2) Permeability

In the model of agility put forth by the Manifesto, in order to adapt it is necessary to maintain a continuous presence within one's team. The notion of permeability captures the close relation between adaptability and continuous presence as discursive features of agility. Both adaptability and continuous presence build on the aforementioned collective subject orientation, urging for a lack of boundaries among individual subjects to better serve the team. Furthermore, permeability also gets at the way in which adaptability is situated in software, and the constructed necessity to make one's private life permeable to the team as part of the effort towards a continuous presence.

Relatedly, the fact that "responding to change over following a plan" is the fourth and final value listed in the Values text is significant. This value builds on the three that preceded it, constructing "processes and tools," "comprehensive documentation" and "contract negotiation" as the collective group of problems that the Agile Manifesto is solving. These problems are drawn upon and culminate in the fourth and final problem of "following a plan." Thus, the overarching solution offered is "responding to change" or adaptability in the spirit of efficiency. Yet, it is not merely responding to change but also *using* change in order to fortify against it. In fact, "responding to change" is echoed within the second principle that suggests that developers must "welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage" (lines 14-16). As a verb, to "harness" connotes the act of appending a controlling device onto a farm or domestic animal. Here, "change" is itself the animal in need of containment via harness. Although the language is positive in that it casts change as something to "welcome," and as that which can enable a "competitive advantage," change is ultimately a threat to be overcome in this discourse. At the same time, through the exhortation to "welcome" change, developers are urged to repudiate a negative conceptualization of it, and embrace it in a way that that compels a centering of positive affect regardless of the circumstance.[xxvi] Moreover, that the embrace of threat is constructed through the metaphor of the harness suggests that change is to be controlled and predicted as much as possible. In such a context, "following a plan" is framed as a hindrance to agility. To be agile in software production is to continuously adapt to changing

"requirements" (line 14). In such a context, subjects must have only tentative plans that can be torn apart and reconfigured at a moment's notice.

In theorizing "agility," Gillies (2010) refers to athletes such as gymnasts and ballet dancers. Yet, both the gymnast and dancer metaphors include references to the performance of a routine. Instead, I assert that the metaphor of the surfer is more apt for agility in software. Rather than performing a premeditated routine, the surfer enters into a state of continuous anticipation while on the waves, responding and adapting to often unpredictable changes in water height and depth. In the context of software, the water can be conceptualized as the rapidly changing e-commerce environment, located within a political economic context often constructed as uncertain and insecure. The developer following an agile model changes course whenever necessary to navigate shifting waters. In such a "turbulent environment" (line 107), rather than fighting the water it is easier to minimize resistance, and to remain always-on and continually attuned to how to change course. In fact, the twelfth and final principle states "at regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly" (lines 38-40). This principle reifies the agile subject as one that adapts continuously in a way that centers the team, again evoking the collective subject.

Interestingly, subjects who are "adaptive" have also been theorized as those who are deferential. Hochschild (1983) has shown that in service-oriented occupations, (predominantly) women workers are called to show that they are "adaptive" and "cooperative" through an outward display "niceness." They are also compelled "to support this effort by evoking feelings that make the 'nice' display seem natural" (Hochschild 1983: 165). In contrast, for the agile subject to adapt is to *harness* change. It is to take *it* over, rather than to be taken over by it. Here, again, a dimension conventionally understood to be feminine, i.e. adaptability, is recast in the texts in more masculinized terms. As Cabanas and Illouz (2019) have shown, in corporations, organizational harmony tends to be constructed as that which requires a certain degree of deference in order for companies to run smoothly, which is also apparent within the agile model. In the Manifesto texts, the orientation towards a collective subject is constructed as a requirement to ensure adaptability is taken up by team members, and to secure the team's continuous presence. In fact, the eighth principle states, "Agile processes promote sustainable development. The

sponsors, developers, and users should be able to maintain a constant pace indefinitely." In constructing "sustainable development" as maintaining a "constant pace indefinitely" (line 31), this principle suggests that the process of developing software has no beginning nor end. Moreover, the call to maintain a "constant pace indefinitely" urges developers to sustain an always-on way of being that enables ongoing connection and a sense of close proximity to the team. While it is not feasible for human beings to work "*indefinitely"* at a constant pace, this becomes more viable when orienting oneself as part of the aforementioned "collective subject." As enterprising collective subjects, individuals within agile teams are called to continuously adapt themselves in response to changing circumstances, information and demands, and to center the interests of the team. Such constructions of the ideal agile subject evoke what Tomlinson (2007: 90) has, in a different context, referred to as the "ubiquitous presence of others." That is, as part of a collective (team-oriented) subject, the presence of one's team is continuously felt, in part via digital communications.

In fact, continuous presence and related immediacy are themes found throughout the Agile Manifesto principles. The first principle is "Our highest priority is to satisfy the customer through early and continuous delivery of valuable software" (lines 11-13). "Early and continuous delivery" centers instantaneity, as it requires not only an always-on way of being, but also a sense of close proximity. As Tomlinson (2007: 91) has suggested, discourses of immediacy create an imagined closing of the gap between "here and there, now and later, what we desire and what we expect to receive" (Tomlinson 2007: 91). The aforementioned first principle with its emphasis on satisfying "the customer" through near instantaneous delivery of software also centers ongoing, rapid speed. This discourse of speed hinges upon exceeding customers' expectations by completing tasks sooner than anticipated as a means to close the imagined spatial and temporal gap. The emphasis on continuous rapidity is also echoed in the third principle, which states "deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale" (lines 17-19).

Furthermore, the exhortation to immediacy becomes more feasible when conceptualized as part of an ongoing project of the self, through which one is always-on and "optimized" to do and be their best regardless of the context. In this way, within the

discourse of agility, immediacy is fused to the entanglement of public and private life. Whether within or beyond the spatial and temporal parameters of their typical workday, to be an agile subject is to make the various realms of one's life continuously permeable to working. The permeability that agility centers is made morally legitimate through a discourse that collapses the distinctions between oneself and the team. It is interesting that at a time in which the self-improvement discourse about the importance of individual boundaries predominates, there is a dominant industrial discourse urging for the precise opposite. That is, the discourse around orienting the self as a collective subject is striking for the way in which it reframes a lack of individual boundaries not only as "autonomous" but also as "good."

3) Illumination

Scholars and practitioners Hohl et al (2018: 2) note that the Agile Manifesto has been described by some engineering practitioners as the "Holy Grail" for software development. Such descriptions highlight not only the Manifesto's continued relevance, but also the religiosity that it can evoke within certain software production cultures. In fact, STS researchers Ames et al (2015: 70) note that software and other technology production can inspire what scholar Vincent Mosco (2005) has referred to as "the sublime" or "feelings of awe, transcendence, and connection to a greater purpose,"[xxvii] all of which gesture toward religious experience. Indeed, Silicon Valley tech cultures are commonly undergirded with religious ideologies, which can be noted in technologists' "worship" and "evangelization" of both media artefacts and of their craft (Ames et al 2015). In fact, assessing religious symbolism and metaphor in foundational software texts such as the Agile Manifesto can provide a lens into the ideological underpinnings of the cultures within professional software settings. It is indeed revealing to examine the Manifesto in this spirit, as its texts carry multiple biblical allusions, and are imbued with mystical symbolism. Although the Manifesto image has not been included in the present analysis due to copyright issues, visiting the website and viewing the visual that the texts rests atop would be helpful in following my analysis.

In terms of the Manifesto's aesthetic, each webpage rests atop the same visual. This image has a golden-yellow hue and a grainy texture that is reminiscent of an ancient scroll, communicating that there is something considerably dated about this text. It is a webpage that requires continuous *scrolling,* which reveals the same static image multiple times, depending on the length of the text on various webpages.[xxviii] While this dated aesthetic could be attributed to the fact that the website was created in 2001 and has not been modified since, the look and feel suggest that it is not merely the early launch date that gives it a dated appearance. In fact, the way in which the principles are organized – with each principle centered and being no more than two sentences long – is reminiscent of popularized reproductions of the ten commandments. Although positioning the Manifesto as dated might seem incongruous with the discourse about a visionary agile model of software production, it in fact works to support this discourse. Allusions to an ancient, biblical scroll frame the Manifesto as a historical document. Such references also communicate that through the discourse of "agility," the status quo is reified.

Moreover, the image shows nine people in full view with their backs to the viewer, and features one man as the focal point who appears to be speaking. Behind this man's head is a bright golden halo that illuminates the people who surround him. There is another similar orb of light that appears at the man's hand. Not only does this suggest that this individual possesses a certain divinity, in featuring his arm extended and hand illuminated by the second orb of light, the visual communicates that what he is doing (i.e. conducting agile software development) carries a mystical power. Discursively, the placement of the illuminated orbs suggests that the process of software production involves a sense of mystique, and brings forth divine or godlike connotations around being all-knowing and all-seeing. In this context, the following line from the History text is particularly insightful: "Agile approaches scare corporate bureaucrats […] because they run out of places to hide" (line 99, 102). The visual and linguistic components of the text work together here to construct agile approaches as those that expose truth(s) via illumination. In fact, in the Manifesto texts, there is a double entendre within the discourse about lightness. On the one hand lightness connotes weightlessness – being able to lithely move and change course – yet, it also refers to illumination. The text suggests that the agile model casts light on unnecessary bureaucratic processes, inefficient plans and heavy

administrative burdens. On the other hand, this light casts an all-seeing glow, signified in the mystical and religious imagery that is related to the visual placement of orbs of light, as well as the linguistic constructions around exposing what is hidden from clear view (lines 99-102).

Within the metaphor of lightness-as-illumination in the Manifesto texts, there is an undercurrent of a discourse about transparency. This is hinted at in the texts indirectly rather than being explicitly articulated. For instance, the bureaucrats "run out of places to hide," constructing the harbouring of secrets as unsafe within the agile model. In addition, bureaucratic, non-agile organizations are positioned as those that use "arcane policies," connoting a sense of shrouded, useless secrecy (line 97). Discursively, this phrasing is also an incitement to view organizational surveillance as a necessary, positive aspect of software production. In suggesting that agile processes "scare corporate bureaucrats," with bureaucracy's aforementioned construction around being anachronistic, slow and burdensome, the text frames "agile" conduct as efficient, and suggests that an important facet of this efficiency involves never needing to "hide." Relatedly, through hinting at a rejection of "secrecy," the text foreshadows the dominance of transparency as a contemporary industry discourse. Yet, in the context of lightness-as-illumination, the implication is for subjects to be transparent in part because the organization sees and knows all that takes place.

There is an additional visual aspect of the Manifesto website that reinforces the discourse of transparency within the texts. The visual is itself fuzzy in aesthetic, which has two functions that are pertinent to the present analysis. Firstly, the fuzzy, out-of-focus aesthetic provides the image with a dream-like quality, which is also metaphoric considering that the text establishes itself as *the* resource for a new visionary model of software production. Secondly, the fuzzy aesthetic invites viewers to imagine themselves as the individuals depicted in the room. While the out-of-focus figures in the Manifesto image are of various shapes and heights, they are all white and are represented as masculine (i.e. there are no people with conventionally feminized appearances in the image). The image reflects the "ideal" subject of software production, and in doing so it highlights the problematic of homogeneity and homophily within the North American tech sector. The racial homogeneity of the image is striking. It is an image that includes all white people,

huddled around a white man, which is itself an appropriate visual metaphor for how, by and for whom software has been historically created in North America.

This fuzzy aesthetic is an all too apt metaphor for the way in which transparency is enacted as a value within many software companies, and the industry at large. This representation offers us a visual of agile software production, yet, it is difficult to decipher exactly what is taking place. The fuzziness in the image is also apparent throughout the written texts as vagueness and decontextualization, which has a strategic function. In offering a vague and decontextualized view of the agile model, and of what takes place within it, levelling any kind of critique becomes challenging. As noted previously, vagueness serves to deflect responsibility and criticism. The fuzziness of the image points to the vagueness – and also to the strategic flexibility – that institutions of software production possess when it comes to setting the discursive parameters of values such as transparency in tech. Just as in the Manifesto image, software organizations are able to shine light in particular places and on particular people, yet, doing so does not necessarily provide us a clear view, nor does it help us to understand what we are looking at.

Several scholars have highlighted the historical functions, and contemporary implications, of discourses of "transparency." Scholar Jack Bratich (2016) notes that the discourse of "transparency" has polemological components, which become apparent when the value of transparency is located historically. Moreover, Christopher Hood (2006) suggests that transparency is an ideal that informed the epistemological basis for many eighteenth-century ideas concerning the social world. Hood (2006: 8) asserts that such ideas prioritized the notion that "the social world should be made knowable by methods analogous to those used in the natural sciences." In France in the early eighteenth century, there was an attempt to engineer "social transparency" through "street lighting, open spaces with maximum exposure to public view, surveillance, records, and publication of information" (Hood 2006: 5, 8). Such ideas were brought to the fore within and beyond England through philosopher Jeremy Bentham's panopticon architecture of institutions such as the prison system. The notion that people will behave better the closer they are watched, which is inscribed within the concept of the panopticon (Foucault 1975), also undergirds transparency as a value in contemporary software production.

This is concerning in a context in which transparency has become a rationale for policing and racial discrimination (Annany & Crawford 2018). This rationale has historical roots that, in relation to software production, extend far beyond the aforementioned militaristic legacy within Silicon Valley counterculture. In fact, in the eighteenth century in New York City, "Lantern Laws" required Black, mixed-race, and Indigenous enslaved people "to carry small lamps, if in the streets after dark and unescorted by a white person" (Browne 2015: 25). Furthermore, in the 1980s, Britain pioneered the installation of cameras in public places, which was taken up in North America (Hood 2006 citing Brin 1998). Contemporarily, surveillance has taken more insidious forms as the software we use on a daily basis acquires vast quantities of information about "users." Yet, what this historical context exposes is the white supremacist, imperialist legacy of the ways in which transparency has been mobilized as a value in North American societies. In particular, this context relates to the way in which institutional forces hold the power to determine the societal groups that get to shine the light in particular places, and those that are subject to its illumination. In the case of employees who work in software production, the discourse of transparency has bearing on how these people are expected to perform their professional selves.

Moreover, scholars Mike Annany and Kate Crawford (2018: 975) suggest that transparency includes an affective component that is bound to a "fear of secrets, the *feeling* that seeing something may lead to control over it, and liberal democracy's promise that openness ultimately creates security" (citing Phillips, 2011). Within the agile model, the call to transparency is couched within a discourse that centers an evocation to feel specific affects for one's work. Such affective-emotional ways of being become bound to "ideal" professional subjectivity in software, through which the performance of transparency matters greatly. While in chapter six I draw from my empirical findings to investigate how employees themselves responded to and negotiated the industrial call to "transparency," in the subsequent section I assess how the Manifesto calls subjects to understand their work and govern their feelings about it in specific ways.

4) "Mushy" affect

The Manifesto's History text is imbued with affective exhortations, which are evidenced through its repeated use of the word "mushy." This text employs the word three times in reference to the Manifesto, and regarding what the agile model is about. It states:

> But while the Manifesto provides some specific ideas, there is a deeper theme that drives many, but not all, to be sure, members of the alliance. At the close of the two-day meeting, Bob Martin joked that he was about to make a **"mushy"** statement. But while tinged with humor, few disagreed with Bob's sentiments—that we all felt privileged to work with a group of people who held a set of compatible values, a set of values based on trust and respect for each other and promoting organizational models based on people, collaboration, and building the types of organizational communities in which we would want to work. At the core, I believe Agile Methodologists are really about **"mushy"** stuff—about delivering good products to customers by operating in an environment that does more than talk about "people as our most important asset" but actually "acts" as if people were the most important, and lose the word "asset". So in the final analysis, the meteoric rise of interest in—and sometimes tremendous criticism of—Agile Methodologies is about the **mushy** stuff of values and culture (lines 64-88, emphasis added).

In the above text the use of the term "mushy" serves to direct affect towards specific aspects of organizational life. The authors construct "delivering good products to customers" as an aspect of the "mushy stuff." Such framing provides an indication of the discursive parameters of "mushy" as a metaphor in the text. Drawing on scholar Lynne Cameron's (2009) theorization of how examples and comparisons can reveal how a metaphor is situated by authors, I note that the above extract reimagines corporate deliverables as driven by, and in the service of, heartfelt sentimentality. This positioning exposes how the text conceptualizes the imperative to be agile, which sets the parameters for the "ideal" agile subject. To enact this subjectivity is not simply to conduct oneself in a certain way, it is also to evoke certain *feelings* about one's work. The affective dimensions

of the agile imperative are also exposed when the text imbibes software developers to get "mushy" about specific facets of one's work and of working, and circulates notions about what it is acceptable to be "mushy" about. Moreover, Arlie Hochschild (1983: 75) has argued that "authorities are the keepers of feeling rules." As noted in the previous section, the visual in the Manifesto discursively elevates the signatories to divine or mystical status. Given that, and considering Hochschild's (1983) claim, when these signatories make proclamations about what it is appropriate to be mushy about, they are creating "feeling rules" for software professionals. The excerpt above centers the importance of getting "mushy" about organizational teamwork, collaboration, and trust and respect for colleagues.

Elsewhere in the History text, an anecdote is provided about a project planning error in a non-agile organization (lines 77-88). In this anecdote, a manager's poor planning led to a project taking a developer twice the time it was estimated to require. The text states that this led to the developer in question being "somewhat despondent" and feeling "terrible about himself!" (line 83). This text suggests that the impact of organizational models can be deeply felt among employees, and that such feelings center upon identity. That is, the developer did not merely "feel terrible," he felt terrible *about himself.* This phrasing centers affective identification with one's work to the extent that a job well done becomes a moral imperative about which one should feel deeply. It also exposes how the discursive imperative to be agile settles into self-understanding. That is, the "ideal" agile subject is one who not only takes mistakes made at work personally, but who will berate himself – for this subject remains a *him* – and construct his self-understanding, and feelings about himself, around his performance at work.

Furthermore, the text also provides indications around how best to display emotion in the workplace. In fact, the rhetorical set-up to the "mushy" expression is prefaced with humour: one of the signatories "joked that he was about to make a 'mushy' statement" (line 66). Here, the Manifesto conveys that humour is an aspect of an ideal form of expression for certain forms of organizational affect. Humorous expression conveys lightness, which aligns with agility's connotations around lightness of touch and being light on one's feet. At the same time, humour can conceal some of the heaviest human emotions (Hochschild 1983). Yet, the above text suggests that an ideal way to convey "mushy affect" in agile

organizations is through a light sensibility, or a dispositional levity that can also be noted elsewhere in the text (see lines 131-136). This deployment of humour to convey "mushy" affect also reveals some of the term's metaphorical connotations as infantilizing. For instance, in order to coax babies to eat mushy food, a parent might act silly in attempt to amuse them in some way and encourage compliance. In this sense, the infantilizing connotations of "mushy" affect add a more sinister dimension to the childlike playfulness that the industry celebrates, which is an aspect of even the spatial organization of many software companies (e.g. through games rooms, oversized slides, campus style cafeterias). In order to better understand the discursive connotations within the metaphor of "mushy," it is useful to turn to its formal definitions.

The dictionary Oxford Languages[xxix] (2021) defines "mushy" firstly as "soft and pulpy," giving the example "mushy vegetables," and secondly as "excessively sentimental." In fact, within many popular definitions of "mushy," there is a prominent focus on food. The metaphor of food holds significant meaning here, as it connotes that mushiness is constructed as that which is meant to be ingested. Moreover, mushy foods are not quite solids, nor liquids, but are instead somewhere in-between. They are substances that have been stripped of form. The contents remain, but they are no longer distinguishable as the thing that they once were. "Mushy" is distinctly indistinct. In the context of food, "mushy" is useful precisely because the act of mushing is what makes the meal more palatable. Alongside the playfulness with which mushiness is deployed in the text above, and considering its connotations to baby food (i.e. as that which is mushed up, often by a mother), the notion of mushy affect holds considerable infantilizing qualities.

Similar to a baby food pouch, metaphorically, mushy affect is a neatly packaged, well contained serving of sentimentality, offered up in a predictable package. Not only is mushy affect packaged in a way that makes it go down easily – that is, with humour and levity – it is also well contained. In the context of the call to agility in software, humour is the necessarily polished package for sentimentality. It is the mother propelling the spoon through the air in a zig-zag motion, making jet engine noises, and proclaiming "incoming" to her toddler's delight, coaxing him to open his mouth to the mush. The lightheartedness and humour make it easier for employees to eat the mush and thus take up specific affective ways of being. I posit that "mushy affect" is an important component of the

industrial imagination of software. It exhorts subjects to strip their internal lives of specific form in order to be whatever the organization or industry asks, in an agile way. Again, to be agile is to be at all times ready to spring into motion. Much like the mush in the baby food pouch, mushy affect is easily pushed in different directions, re-packaged, and made in multiple flavours that are pleasing and palatable to many. Here, I do not intend to suggest that cultivating positive affect for work is inherently bad, nor that humour is a menacing device in the workplace. Indeed, many workers speak of humour and positive affect at and about work as being useful and fulfilling forces (Gregg 2018; Hochschild 1983). Instead, my aim is to pay more attention to what the industry asks of its employees at deep inner levels. Moreover, as the discourse of agility centers an "ideal" agile subject, such centering can be alienating for those who do not fit into what is commonly conceptualized as the "norm" of those who build software, with respect to race, gender, gender identity, disability status, sexuality and age. A close reading destabilizes this "norm" and helps us to question the discursive force that props it up.

Overall, the connotations of "mushy" make up the key discursive features that animate the call to "agile" affective identifications with one's work. Alongside the aforementioned mystical and religious visual that suggests developers are embarking upon a visionary pursuit, the repeated use of "mushy" lays bare a rhetorical function to cajole subjects to affectively identify with their work at the level of the self in a malleable way. The formlessness of this "mushy" affect is central, as it enables what one derives fulfillment, satisfaction, and passion from to change. The connotation of malleability within the discourse of "mushy" affect calls subjects to understand their feelings to be firmly in their own control, and suggests that it is possible to alter these feelings at will. This connotation creates a highly flexible construction of affect, and places the responsibility for feeling in particular ways (e.g. "motivated" in line 22) on individuals themselves, regardless of the context, and without a lens towards structural inequities such as white supremacy and patriarchy.

Being situated within neoliberalism, mushy affect asks subjects to bear the responsibility for all that they feel, including (and perhaps especially) in cases in which feelings are compelled by the organization or industry. One of the ways this responsibilization "works" is through the promise of autonomy. When the team's autonomy

and one's own autonomy become indistinguishable as a function of what it means to be "agile," it becomes increasingly difficult to ascertain where or who certain feeling rules came from, and how they suddenly got "in here," as Gill (2011) might say. Furthermore, the industrial discourse of agility offers a blueprint for the ideal way to feel and understand one's feelings, which itself is continuously being adjusted in response to various social, cultural, political and economic circumstances. Since the emotion management discourses that software organizations draw from tend to be heavily informed by popular self-improvement cultures, the ways in which companies compel their employees to feel are often already popularized outside of the workplace. Being popularized outside of the institution, and thus legitimated by external "psy" experts (Rose 1998), various discourses of emotion management are often viewed as unquestionably good. Yet, emotional ways of being that are beneficial to institutions are those that tend to favour organizational harmony and the waning of critique (Chiapello & Boltanski 2005; Illouz & Cabanas 2019; Illouz 2007, 2008). It follows, then, that what is understood as good and emotionally healthy becomes fused to what is best for the organization. While in some cases there may not be need for concern about such suturing, in others this becomes a problematic trend. When we optimize our lives, for instance, we may engineer efficiency at the cost of inclusion, belonging, or even equity. Or, when we compel a surveillance-oriented transparency among employees, we may encourage industrial norms that are beneficial for the most privileged, placing additional pressures on marginalized groups. Similarly, when we call for agile mushiness to create strong affective identifications to work, and to ease tensions at work, we situate subjects' internal lives further into the public domain, bringing forth consequences for the private realm. Moreover, as Ruha Benjamin (2019) has argued, in the technology sector paying attention to everyday discourse is crucial if we are to purposefully confront how biases based on race and its intersections become coded into online platforms. Industrial culture is an important component of this process.

"Mushy affect" is a sector-specific example of a means to compel the close management of negative affect, which is work that many industries do in their own way. In tech, if we conceptualize of negative affect such as rage as loose affect, making it "mushy" makes it containable, and introduces predictability into the affective vocabulary of the ideal agile self. Moreover, emotion management can create internal standards for future feelings

or, to borrow a term from tech, a "roadmap" for our inner worlds. Considering this, the impact of mushy affect is likely to be felt far beyond the physical and digital walls of tech institutions. It might indeed be an industry-specific form of what Illouz (2007) has termed "emotional capitalism," referring to the ways in which people are increasingly called to structure their emotional understandings according to the logic of the market. Overall, to be called to mushy affect is to be responsibilized to evoke from oneself a mutable, heartfelt sentimentality about one's work. It is also to manage one's emotions at work according to a specific industry ideal. Mushy affect reaches subjects at their deepest levels, as it does not simply urge them to be agile at work. Instead, it exhorts them to be agile *selves.*

Conclusion

In this chapter, I have analyzed the Agile Manifesto as a means to investigate some of the key texts that inform the imperative to be agile among software employees. Doing so exposes the internal, affective work required of the industry's "ideal" agile subject. Held up as the industry standard to aspire to amidst a highly uneven landscape, this constructed ideal calls forth a set of discourses and practices that can be both encouraging and painful, enjoyable and exclusionary. It is important to pay attention to the ideological underpinnings of this ideal subject, as such an exercise can assist in making the familiar strange (Hall 1982). Attention to discourse helps to surface the interests that industrial imaginings simultaneously center and obscure.

In fact, in his investigation of software giant Facebook's workplaces, Turner (2018: 61) documents that the company strategically selects pieces of art such as posters that ask "WHAT WOULD YOU DO IF YOU WEREN'T AFRAID" alongside images of Black Lives Matter protesters and other social justice activists. The tagline in this poster evokes a sense of urgency about exposing, or rendering "transparent," the inner self at and through one's work, and making one's "most emotional parts available to the company" (Turner 2018: 61). Meanwhile, the representations of protestors and activists discursively suggest that social justice is a value the company holds and, within open-concept workplaces, this art serves to blur the lines between the company as a workplace and as a community space.

The art at Facebook shares similarities with the imperative to be agile, as both call employees to collapse distinctions between public and private life by imagining the organization one works for as a community that is closely bound to one's own identity. Such a call gestures towards 1960s counterculture in which the communards "dreamed of a world in which contracts would no longer be necessary since the lines between work and play, public need and private desire, would have dissolved" (Turner 2018: 61). When read against an analysis of the Agile Manifesto, Turner's (2018) study shows that the discursive dimensions of the Manifesto echo throughout the walls of software companies such as Facebook. Yet, these spatial discourses are also constitutive of the legacy of the agile model in software. A conceptualization that incorporates the agile model is useful since this model provides a conveniently flexible and vague framework to hold together the values constructed as central to software production, such as transparency, adaptability and optimization. Indeed, software companies benefit from the notion that there is no space for secrecy within software, mobilizing discourses of "openness" online as strategic devices that legitimate the acquisition of vast quantities of data from "users." They also benefit from the notion that to work collaboratively as a team-based or collective subject requires orienting one's inner life with an affective light-heartedness and continuous adaptability. Such an orientation involves making oneself permeable to the organization at nearly all hours for the purposes of working together communally, a pursuit that is constructed as being beneficial not simply to the self, the company nor industry, but to society at large.

It should also be noted that the discourse of agility – as its name and the above analysis suggests – continues to change. There is no *one* discourse, and it is doubtful that organizations follow the Agile Manifesto (2001) in a prescriptive way. Instead, the Agile Manifesto (2001) is a text that informs the agile model, shaping the dimensions of what it means to be agile. Considering that, the present analysis is not intended to be an overview of what software organizations, nor the industry, will expect or require from those who work within the sector. Instead, it is my hope that this analysis helps individuals to better understand how aspects of their inner lives relate to a broader industrial culture. The popularization of the agile model outside of tech (see Miltner 2020) also highlights the breadth and reach of this culture, and shows precisely why analyses of culture are so complex. By analyzing discourses of key texts that inform the agile model, I build on

research that assesses the discursive and cultural features of software production (Ames, Rosner & Erickson 2015; Harmon & Mazmanian 2013; Leshed & Sengers 2011; Mazmanian, Erickson & Harmon 2015). What much of this research has done is invite both industrial leaders and designers to center not a singular "ideal" subject position, but a multiplicity of positions. In this vein, for organizations, what might it mean to not merely make room for but to *center* multiple subject positions within enactments of the agile model, in an intersectional framework? Next, I draw from my findings and show how and to what extent the imperative to be agile materializes among interviewees.

Chapter 5

Optimization as a Technology of Self:

An emerging configuration of productivity among professional software employees

Introduction

In recent years, "optimization" has come to prominence in and beyond the software industry. In the corporate sphere, optimization has become a synonym for maximizing efficiencies and reducing unnecessary expenditures in pursuit of increasing profit. Although optimization is a term that emerged from computer science (Chiapello 2018), it is also connected to the broader productivity imperative (Wajcman 2018), perhaps most significantly among those who work within high-tech sectors. Among such professionals, optimization has become a pursuit oriented around the self. In fact, critical scholars have exposed the problematic of attempting to "optimize" the self in ways that individuate more systemic conditions of work (Wajcman 2018). In the present chapter, I explore the ways in which employees I studied construct their "productivity," including their reported feelings about it. I suggest that employees' understandings about their productivity, and the feelings embedded within these understandings, reveal optimization and help to expose an internally located aspect of how power is "willfully" negotiated within professional settings of software. I analyze the ways in which optimization has become a technology of self through which individuals are called on to support the coalescing of public and private life.

It is significant that "optimization" emerged from the technical domain of computer science, as this field often enjoys the unwarranted and erroneous assumption of being a purely technical and thus values-free domain.[xxx] As Foucault (1978-79) has demonstrated, discourses that are presented as neutral rather than as having explicitly moral or political aims tend to be more convincing and easier to institutionalize. In the sections below, I assert that optimization is not an innocuous ideal that merely encourages individuals to be and do their best. Instead, it is an individuating discourse that compels employees to turn

inward. Throughout the chapter I treat optimization as an assemblage that is evident in a panoply of industry, technical, media and workplace discourses. Building on the work of studies of technologies of self and culture (Gill & Orgad 2015: 325, 2017; Gill & Donaghue 2015; Foucault 1988), I assert that optimization consists of a "discursive formation, set of knowledges, apparatuses and incitements that together constitute a novel technology of self." Optimization, as a technology of self, offers specific subjectivities or ways of being. Moreover, as an emerging configuration of the productivity imperative, I locate optimization within the context of neoliberalism in political economic terms and as a cultural project. To investigate this cultural project, subjectivity is my entry point, as one of the foremost ways the culture of neoliberalism operates is through making the self its primary site of intervention (Rose 1998). Against this context, how employees constitute themselves as productive can reveal important insights around how power is negotiated at the level of subjectivity, a process bound to culture. Moreover, employees' understandings and feelings about productivity show how the political economic context bears down on an apparently highly privileged group of people. As argued by Jan English-Lueck (2010), for professional employees of high-tech sectors, the workplace is a key site through which capitalism is felt. Among these individuals, who tend to take up a social engineering perspective for even day-to-day practices (English-Lueck 2017), the self becomes yet another project "subject to endless tinkering" (English-Lueck 2010: 6).

The present chapter makes three central contributions to the understanding of professional subjectivity, specifically as it relates to software employees. First, it offers an empirical interrogation of productive professional subjectivities in the fast-growing software industries of Toronto and Vancouver, cities influenced by Silicon Valley while being in separate geographic locales. In doing so, the chapter takes seriously the call to uncover more of neoliberalism's localized practices (Gill & Kanai 2018), since much research on subjectivity in tech has focused on Silicon Valley. That being said, I also acknowledge that while Canada has a significantly smaller population than, for instance, the United States or the United Kingdom, it remains a part of a highly privileged set of western countries in which neoliberalism has long taken hold. Second, the chapter attends to how productivity is understood and felt by interviewees. It is informed by Arlie Hochschild's assertion that "as we analyze neoliberalism, we need to ask questions about

the changing feeling rules around us and the selves we are asked to 'hold'' (du Plessis & Sørensen 2017: 186). Prodding into the affective-emotional dimensions of professional subjectivity helps to pave the way for an exploration of neoliberalism's dynamism, concerning how this dynamism is negotiated within interior worlds. Third, the chapter situates professional subjectivity in a broader political economic context of neoliberal life, assessing the conjuncture between subjectivity and culture in the context of work.

The chapter is organized into three subsequent sections. Firstly, I provide background around the productivity imperative's recent cultural trajectory, and explain how it relates to optimization. Secondly, I provide a brief overview of the theoretical approach I apply throughout the analysis, although aspects of this approach are expanded upon in the literature review chapter. Thirdly, in the analysis and discussion of the empirical findings, I suggest that optimization is emerging as a technology of self among those studied. As part of this discussion, I begin by outlining that the technology of optimization involves a discourse around bringing one's best to professional *and* personal realms, through which it offers a specific set of moral ideals. I then show that another facet of this technology of self is centered on willfully entangling public and private life. Finally, I theorize employees' reported feelings about their own productivity, assessing how the technology of optimization interacts with positionality and a politics of privilege. I assert that the productivity zeitgeist's turn toward inner life and to private realms calls employees in the software sector to streamline the self in an exhaustive quest towards "optimization."

Background: Productivity and optimization

Productivity has been long-identified as a moral ideal that is shaped by an ascetic Protestant work ethic (Weber 1930). Contemporarily, this ideal continues to influence cultures within organizations (Gregg 2018; Sharma 2014; Wajcman 2018). In fact, in the context of workplaces, particularly within the technology sector, the cultural preoccupation with productivity has culminated in "a moral order: the great unquestioned virtue of our age" (Wajcman 2018: 59). As a cultural imperative, productivity has acquired virtue to such

an extent that being productive is at the core of a framework for ethical living through work that exceeds any singular cultural or religious belief system (Gregg 2018). Some of the defining features of the productivity imperative include the frenzied pace at which we work, the lack of parameters around our work that contribute to sending online messages from any location, at any time of day, and the compulsion to prove our worth through professional achievements. While this imperative has called subjects to believe that there is always more that can be done to increase their professional productivity, the shift towards optimization exhorts them to maximize within and outside of work. This shift is related to the entanglement of the public and private in recent decades. That is, in neoliberal societies, political economic developments such as conglomeratization, digitization and the non-standardization of labour have fundamentally altered the conditions of work. For salaried, professional employees in software, this has meant moving away from the once standard 9 to 5 workday to longer hours, larger workloads, and increased pressure to be productive. Now, not only are professional successes personal (Gregg 2018; Hochschild 2003), the disappearance of boundaries between these realms has required a more concerted performance of the self in various contexts (Hochschild 1983; Illouz 2007, 2008; Rose 1998). What is now required of software employees is a performance of the self as *optimized* regardless of the realm in question, in part due to the fact that even intimate realms of life are now structured by a market-oriented logic, and also considering that the spatial and temporal limits of work extend into private realms. This optimized performance is fused to the continuous presence that software employees are called to as ideal agile subjects, an aspect of which involves making oneself permeable to the team.

Moreover, with its origins in computational sciences and structured by capitalism, optimization's purpose is to "make the best use of what we have" and "find the best balance between contradictory aims" (Chiapello 2018: 14). Such aims might involve advancing in an increasingly demanding workplace while also nurturing a family life. In orienting the productivity imperative towards a maximization of processes and outcomes within and outside of work, optimization both capitalizes on and assuages the tensions between professional and personal realms, while offering specific subjectivities. In fact, optimization can be said to create new possibilities for what sociologist Eva Illouz (2007) refers to as "emotional capitalism," through which the logic of the market inscribes both what is felt

and how feelings are understood. Relatedly, as a "technology of self," Foucault (1988: 18) might describe optimization as a process through which individuals act "on their own bodies and souls, thoughts, conduct, and way[s] of being" as a means of self-transformation to attain some desired state. As noted in the literature review chapter, Foucault's technology of self theory is undergirded by the notion that how individuals behave is linked to their patterns of thought, which are informed by tradition and history. Technologies of self also provide understandings about the relation between structure and agency by drawing connections between truth regimes and the creative agency of individual subjects (Gill & Orgad 2015, 2017). The emergent shift towards optimization remains connected to the productivity imperative, yet it is also an indication of this imperative's dynamism. That is, although the productivity imperative has not ceased to impinge upon individuals' thoughts, feelings and conduct, the ways in which it is configured continue to change.

The dynamism of the productivity imperative can be noted in the cultural uptake of managerial texts. In Peter Drucker's (2008) widely popularized essay *Managing Oneself,* he argues that all employees should behave as CEOs. In managing the self as one might run a business, Drucker (2008) suggests that people will become indispensable to the organizations at which they work. Such advice is well-suited to the technology industry for its enactment of entrepreneurial discourses, and begins to expose connections between management texts and Silicon Valley culture. In fact, similar logic to Drucker's undergirds "lifehacking," the aforementioned practice that has gained popularity among tech industry professionals. Lifehacking is a means to develop shortcuts to make the best use of the time and effort required for mundane tasks of everyday life, which is a foundational pillar of Drucker's advice. The central difference is that Drucker urged for these shortcuts to be targeted at professional tasks whereas lifehacking applies also, and especially, to the private sphere. This begins to expose the emergent configuration of optimization within the culture of productivity. Specifically, it shows that a central feature of this shift relates to how the enterprising self is oriented. In fact, in an investigation of classical musicians, scholar Christina Scharff (2016: 112) found that the "entrepreneurial self orients to time with a view to making the best use of it." This orientation exposes the tendency to optimize the self, seen through the emphasis on maximizing (Scharff 2016). Indeed, understanding oneself as an enterprise that must continuously improve is a process that will never see

completion (Illouz 2007, 2008; Scharff 2016, 2017). This pursuit of continuous self-improvement within a framework of optimization is one that requires an always-on orientation, in public and private realms.

The shift towards optimization can also be noted in the continued popularization of other management texts considered foundational, such as author Dale Carnegie's (2006) *How to Win Friends and Influence People.*[xxxi] This book, and the original from 1936, offers tactics to forge connections with and influence colleagues as a pathway to career advancement. Such interpersonal acumen has particular appeal in the informal professional contexts that the software industry is known for, in which there are not always clear milestones to advance, and where strong networks can facilitate career progression. That Carnegie's book remains one of Amazon's bestsellers suggests that its insights are still highly coveted. Yet, at a time in which digitization has facilitated a "presence bleed" between work time and all other time (Gregg 2011), the strategic subjectivity Carnegie once propagated for use in professional spheres is today taken up discursively in both realms.[xxxii] Thus, while foundational texts such as Drucker's and Carnegie's continue to be drawn on, they are increasingly adapted to a neoliberal context that calls for an optimized self. Indeed, there are echoes of these discourses in the findings section below. Prior to providing an analysis of my empirical data, I first explain how I theorize optimization as a technology of self.

Technology of optimization

As Chiapello (2018: 21) notes, optimization has extended the very meaning of capital to include even emotional forms, offering subjects a means to make each aspect of their lives productive. As a technology of self, optimization is enabling productivity to acquire additional moral legitimacy and remake itself "in a new spirit" (Boltanski & Chiapello 2005), bringing forth an emerging set of moral specifications. Further subsuming non-professional domains into the culture of productivity, the technology of optimization creates an all-consuming subjectivity, through which employees are invited to work on themselves in order to transform into optimized beings. As a technology of self,

optimization urges subjects to take on the unending project of recreating their inner lives in order to be better parents, friends, sons or daughters, *and* employees and team members, all as part of a broader remaking of the productivity imperative.

In reconfiguring the quest to be productive through offering a sense of accomplishment in being an optimized self at work and outside of it, through the technology of optimization there is a maximization of conduct and attitudes, which reaches subjects at deep levels of self-understanding. In a context in which people increasingly derive pleasure and satisfaction from productivity (Gregg 2011, 2018; Wajcman 2015), optimization offers a market-oriented blueprint for regulating feelings and tensions related to the pursuit of productivity. At the same time, with the inward-looking preoccupation with maximizing and making the "best" use of the self, optimization calls subjects to overlook conditions that shape the frenzied, overworked pace of life that, for instance, precipitate the necessity for paid work to increasingly spill into personal and domestic realms. Instead, in compelling a turn inward, the technology of optimization allocates blame solely to the self for any failure to optimize. As noted by Gill and Orgad (2017; 2015), individuating and internally located tactics of psychic labour tend to involve a shift away from the ways in which structural power bears down upon individuals' senses of self. In this way, optimization individuates various challenges that employees face, making issues related to hierarchy and structural inequities a matter of individual tenacity and will. Thus, as a technology of self, optimization upholds emerging iterations of capitalism. That is, in holding similar market-oriented, individuating logics as the productivity imperative, but imbued with a new set of discourses and ways of being that center maximization in public and private life, optimization is a means through which neoliberal capitalism is reified. Although scholars have long been arguing that a market-oriented ethos structures nearly all aspects of contemporary life (Hochschild 2003; Illouz 2007, 2008; Rose 1998), in explicitly centering even non-professional realms as sites to bring one's "best," optimization further complexifies professional subjectivity. As I will show, this technology of self douses optimized conduct at work and outside of it in positivity and feelings of accomplishment. I begin the empirical analysis with a discussion of employees' reported understandings about their productivity. Throughout, I use "technology of optimization" to refer to optimization as a technology of self, rather than to refer to a material artefact.

Findings and discussion: Feeling productivity

Optimization's moral specifications: The call to be "100 per cent in"

At an orientation session for new employees, light spilled into a large boardroom at a software organization. The people in the room ranged from entry level employees to senior leadership, and they worked on teams across sales, software development and consulting. This session was the point of entry for all new recruits. It took place on a crisp winter morning, and a fourth of the new employees in the room had helmets clipped onto their backpacks. They had biked to work despite the fresh layer of snow outside. Many wore plaid button-down shirts, wool and fleece sweaters, and the majority were wearing jeans. The employee facilitating this session introduced the company values, and provided an anecdote about a software developer who once caught a coding error at 4 a.m. and mitigated what could have been a large-scale outage for one of the company's online products. He noted that this employee was not on-call at the time of the fix and was not expected to be working, however, he had gone above and beyond by working into the early morning. The facilitator suggested that this was an example of being "100 per cent in," which, he stated, was important to exhibit even in non-work settings. He added that whether attending a family barbeque or spending time with friends, being 100 per cent in meant that employees brought their best to everything they did and to each context in which they found themselves.

The above excerpt was taken from the fieldnotes of one of the first days of my multi-sited fieldwork. The facilitator's comments about work and home life suggested that the concept of being "100 per cent in" was rooted in productivity, and that one's subjectivity at work was deeply intertwined with their way of being outside of professional contexts. This is significant, as it centers the maximization of the self and, in doing so, reveals optimization. In fact, the sentiment within the facilitator's comments was echoed multiple times throughout my fieldwork. For instance, during an informal interview, a consulting employee spoke about the importance of prioritizing both work and family as values and stated, "there's no 97 per cent, you're either 100 per cent or you're not." He added that a mentor and former supervisor taught him this, and it is advice that he continues to live by.

Additionally, a sales leader spoke about her approach to both personal and professional realms and stated, "I'm 200 per cent or I'm zero."

Such constructions expose a transmutation of the productivity imperative among the employees I studied, and demonstrate a shift from productivity towards optimization. In urging for an optimized self at work and outside of it, there is a maximization of conduct and of feelings related to it, which reaches subjects at deep levels of self-understanding. Moreover, the facilitator's assertions about being "100 per cent in" were a prominent aspect of a presentation delivered to new employees during one of their first formal introductions to company culture. These comments help to structure an organizational call around the selves that employees "are asked to hold," hailing them to *be* a certain way. Specifically, the anecdote provided by the facilitator, as an organizational interlocuter, celebrates work taking place outside of the temporal and spatial bounds of the conventional work day (i.e. at 4 a.m. from the employee's home). In doing so, he gestures toward the agile permeability discussed in the previous chapter, through which employees are exhorted to rigorously adapt themselves so that their continuous presence is felt by the team. He also sets an expectation not only around a tireless commitment to work, but also concerning "feeling rules" (Hochschild 1983) about work. While constantly working might be viewed by employees or even their loved ones as unhealthy, adopting a "100 per cent in" way of being that is applied to even non-professional realms legitimates optimized productivity as a subjectivity. That is, if people are fully engaged at a family barbeque and other personal settings, as the employee above urged them to be, then being similarly "all in" at work is a logical and ethical extension of this subjectivity. It is a discourse that makes the quest for excellence through professional pursuits a mere extension of ourselves, and can render tensions between professional and personal endeavours as failures to optimize internally. Meanwhile, the conditions of professional work in software continue to place demanding, always-on, digitized workloads on the plates of employees, highlighting the tensions and complexities between the call to optimization and the lives of subjects.

One consultant, Elizabeth, expresses concerns that emulate some of the complexities around optimization. Elizabeth is a woman of colour from a middle-class family background. She states that she was recently lying in bed unable to sleep, feeling anxious about whether or not she was being "productive enough." She explains that her job at a

software company was going well, but that she was worried about whether or not she was doing enough with her "side hustle," mentioning that she feels guilt if she does not spend her entire weekend working on it. She laughs as she states that she was able to ease her anxiety because she is pregnant, and thought to herself that she was being productive simply by lying down since she was growing a fetus.[xxxiii] The fact that she conveyed this sentiment with humour is indicative of felt affect. Elizabeth also explains that if she could get her start-up off the ground, then she would feel as though she really "earned her place" and could relax. Elizabeth has attended an Ivy League university, has a mid-level career at a software company that she finds enjoyable, and has extensive volunteer experience. Despite all of this evidence of her accomplishments, she held firm on the feeling that she was not doing enough, and spoke of an incessant inner nagging about the pressure to be increasingly productive. Elizabeth's orientation toward productivity in professional *and* personal realms exposes optimization. Her concern for showing productivity in these distinct realms also gestures towards an affective dimension. That is, in constituting herself as productive through pregnancy, she alleviated her anxiety for feeling as though she was not being productive enough with respect to her professional pursuits.

The way in which Elizabeth assuaged these challenging feelings demonstrates how optimization operates as a technology of self, the way it "works" for individuals, and the complexities it brings forth. In fact, Elizabeth's case begins to show how optimization structures feeling. According to the logics of optimization, one can always do more to improve the self, which builds on earlier calls for workers to fuse their identities to career aspirations and outcomes,[xxxiv] while also exhorting them to internalize an optimized productivity to such an extent that it is no longer enough to be productive at work. That is, if people are experiencing challenging feelings due to lack of productivity in one realm, the technology of optimization invites them to transmute or at least subdue these feelings through focusing on their productivity in another realm. In applying market-oriented, optimizing logics to professional and personal spheres, any tensions between these domains are rendered entirely individual concerns, and felt as a failure to enact *homo economicus* within one or both realms. Yet, the promise of the technology of optimization rests in its individuating outcomes. That is, individuals are called to feel that not only is their propensity to be productive in their own hands, as are their feelings about this

productivity. Although such individuating discourses may offer meaningful rewards to individuals, they also bring consequences such as compelling subjects to structure their leisure, and non-working, time according to market logics.[xxxv] The sentiments expressed by Elizabeth about not doing enough in professional and personal life were echoed among employees I spoke with throughout the software industry, and remain a theme within the following chapter, suggesting that productive subjectivities are increasingly being constructed in private as well as public domains. As a form of productivity that both encourages and celebrates the propensity to be always-on in various contexts, and offers inner rewards for doing so, optimization is becoming a technology of self that brings forth specific practices, ways of being, and feeling rules. I now turn to the increasingly complex entanglement between public and private spheres of life in employees' constructions of themselves as productive.

Entanglement of the public and private

Rather than advocating for balance between the distinct realms of employees' private and public lives, the technology of optimization involves a process of maximization, viewing both the public and private as sites of opportunity. Among interviewees, in some instances this involved "work-life integration," which has been defined by scholars Doris Ruth Eikhof, Juliette Summers and Sara Carter (2013) as the willful amalgamation of public and private realms and personal and professional life.[xxxvi] For instance, several interviewees noted that they frequently socialize with coworkers outside the workplace and during their personal time, that is, outside of bounds of their typical work days. Of socializing with coworkers one software employee matter-of-factly commented, "it's an efficiency." A product manager also casually stated, "then you don't have to worry about arranging your own plans." Although it is not unusual for coworkers to socialize, these comments expose that in the software industry, for several of those I researched, socializing tends to be constructed as an "efficiency." Indeed, efficiencies can be conceptualized as aspects of optimization, since they center upon avoiding waste, i.e. of effort, time and other resources. At a time when employees are spending more and more

time working, and in an industry in which navigating promotions and career advancement commonly takes place through informal processes based on networks, extending personal social circles to include coworkers was viewed by these interviewees as an efficiency. This begins to show that, through the technology of optimization, employees constitute themselves as good professional subjects in part through acknowledging and inviting the entanglement of the public and private. It should be noted, however, that the majority of those I interviewed did not have children. It is possible, then, that applying logics of optimization in a way that collapses private and public life may be more difficult for those with childcare, and other caregiving, responsibilities. Considering this, the way in which optimization "works," and how it hails employees, reveals that it is a technology of self that centers a subject with few caring responsibilities as the "ideal."

Another way in which the entanglement of public and private realms was invited concerned occasionally working from home. Several employees stated that their work-from-home days felt especially productive because they allowed them to focus on work with fewer interruptions, while also completing domestic tasks throughout the day. For these employees, working from home enabled them to optimize the completion of tasks in public and private realms of life, by switching between the two. In fact, one senior-level sales employee, Krista, suggested that when working from home her domestic labour and personal tasks supplant in-office breaks. She describes waking up at 5 a.m. to exercise. Instead of showering immediately afterward, she works with intense focus for three hours, after which she completes a domestic task such as laundry. She states that she "rotates like this with work and home tasks," and that during these days she is "checking all the boxes of work and home." She proudly describes these work from home days as "extremely productive" and says that on such days she often ends up "working the hardest, like fourteen hours." She suggests that an aspect of what makes working from home so productive is that there are less interruptions than is the case in the office. At home, it seems, she feels more in control of her daily schedule. Such assertions expose a discourse around domestic labour and personal tasks being enabled through working from home. The experience of working from home as a form of optimization also evokes the long history of women's largely unpaid domestic work at home, and the naturalization of this work, which, as scholar Sylvia Federici (2012) has shown, serves to undervalue this labour.

These tasks are constructed as supporting an optimized self in continuously crossing off items on the to-do list, or "checking all the boxes of work and home," as the interviewee put it. Additionally, the shift between professional and personal tasks while working from home assists subjects in constructing themselves as optimized beings, and also exposes optimization as a form of governmentality. As noted by Foucault (1988: 18), technologies of self imply "certain modes of training and modification of individuals, not only in the obvious sense of acquiring certain skills but also in the sense of acquiring certain attitudes." When checking the boxes off a to-do list is itself understood to be good or satisfying, as it was for Krista, this invites subjectivities that are less preoccupied with what is on the list and more with the act of crossing off, a point that I return to in the continued discussion.[xxxvii]

It should be noted that for interviewees, remote work was occasional and the majority tended to work from the office. Nonetheless, the combination of paid professional and unpaid domestic labour, and the productive feelings that this brought among employees, speaks to optimization taking hold at the level of the self. Interestingly, interviewees are taking up optimization as a technology of self, and bringing their "best" to all that they do, at a time in which work is increasingly creeping into personal and domestic time and space, and making it difficult to distinguish between public and private realms. Not only does this offer certain benefits to employees, it is also attractive to organizations for the increased productivity that it suggests. Yet, as shown by scholars Deirdre Anderson and Clare Kelliher (2011), "work-life integration" can also result in greater intrusion into home life. In the subsequent section, I further probe how employees' constructions of their own productivity relates to positionality and privilege.

Privilege and the optimized self

Multiple employees I interviewed gestured towards optimization as a technology of self by speaking about the satisfaction they derived from being productive in public and private spheres. For instance, Kyla is a mid-level consulting employee. When asked what she would likely do with a free weekend, Kyla stated:

> I would likely find something to do. So, if I had the rare weekend where I didn't have my daughter, I wasn't travelling, I didn't like make plans with friends for example, I didn't have to study – I'm doing a course right now. I would probably be like, 'oh this is my weekend where I'm like meal-prepping and cleaning my house and like organizing my camping stuff for, like, three weekends from now.'

As seen in Kyla's above quote, much of her response about how she would spend a free weekend involved domestic labour such as meal-prepping and cleaning. Regarding how being productive makes her feel, Kyla states, "when I feel like I'm productive, I feel like I'm in a good mood, I feel like I've done what I needed to do today." Kyla's statements not only demonstrate how the culture of productivity is shifting to optimization through taking hold in the private sphere, they are also illustrative of how other employees constructed their feelings about productivity. That is, from a positive frame, which can also be noted in Krista's account in the previous section. Interestingly, Kyla's statements also underline the ways in which optimization is gendered. That is, for the women interviewees assessed in this chapter, a recurring aspect of their reported feelings of satisfaction around being productive outside of work related to the completion of domestic tasks.

Furthermore, Erin is a product manager who speaks extensively of the pleasure she derives from being productive in both realms. She states:

> I like housecleaning, I like to have projects. Like, I built a bunch of patio furniture and stuff for a couple of days, I like to garden, love cooking elaborate meals. Like, will spend an entire afternoon picking out fancy wine. I like to be doing things all the time.

As with Kyla, Erin's statements suggest that her feelings of accomplishment about productivity outside of work involve domestic labour. In expressing positive feelings for the completion of domestic tasks, Erin can be said to be negotiating a feminine gender role according to the logics of productivity. In constructing herself as productive in part through the domestic work she enjoys completing, Erin is navigating her professional subjectivity in

a way that sheds light on the double bind she may face in the workplace, with respect to negotiating her own productivity alongside femininity. Furthermore, Erin also speaks of productivity as part of who she is, and something she has consistently applied to work, recreational activities and leisure time from a young age. She outlines her schedule as a child, which involved waking up early to take part in various organized sports, attending school, and then working and completing homework before taking part again in organized sports. Of this schedule she states:

> So a standard of productivity is in my blood. It's something that I've been actively working on, like the ability to sit down and just watch a movie is like a very hard for me. Yeah I'm a total WASP prototype. Like my mom is probably ironing all of my cloth napkins right now because they're wrinkly and that's a disgrace. But that's okay. We have a good sense of humour about it.

The above quote speaks to how Erin's constructions of herself as productive are also gendered generationally. That is, in speaking about her productivity, she gestures towards her mother as the familial figure who she amusedly suggests would reprimand her for "wrinkly" cloth napkins. Moreover, it is important to note that three times during our interview Erin describes herself as a "WASP," referring to her white, upper-middle class background, and also spoke about the pleasure she derives from being productive in personal and professional realms. In highlighting her "WASP" background while explaining how she is productive, Erin also speaks to the ways in which class and race structure her experience of productivity. Erin has a father who is an executive, well-known and respected in his business community. Relatedly, having the time and finances to devote to so many recreational activities, and also developing productive habits from a young age, all speak to her class background. At the same time, having an unquestioned place within costly extracurriculars gestures toward the intersection of class and race, a topic Rivera (2015) has investigated in the context of professional work. The fact that Erin herself points to this intersection by repeatedly referring to herself and her family as "WASPs" highlights this point. Although her usage of "WASP" conveys a heightened awareness of her own privilege, the use of the term, performed with ease via levity and humour, can obscure what Patricia

Hill Collins (2000) has referred to as matrices of domination, through concealing how intersecting oppressions are organized. It does this by circulating a discourse about the obvious and unquestionable union between whiteness and financial prosperity. Erin's assertions expose an instance of how the technology of optimization plays out in everyday discourse about productivity, and begin to demonstrate its relation to privilege. These assertions show how life histories merge with productivity narratives, to expose positionality in how productivity is constructed.

Moreover, it is important to note that Erin reports that productivity was ingrained in her from a young age as a positive way of being, which likely helped to shape how she feels she is *supposed* to make sense of productivity in her life. As noted by Hochschild (1983), positionalities influence how subjects make sense of their lives. In fact, Erin used productivity-oriented language in relation to even mundane aspects of her day-to-day life. For instance, she mentions that she frequently has difficulty "accomplishing sleep," indicating that sleeping is merely another item to be addressed on an endless to-do list.[xxxviii] Erin also states that she commonly wakes up multiple times throughout the night thinking about work. She views this as connected to her tendency to be always on, especially in the context of paid labour. When asked how she addresses these difficulties sleeping, Erin states that she does so with a combination of medication and Netflix consumption. Although she cheerfully notes that her always-on productive self is likely linked to her difficulty sleeping, she does not mention making changes to her lifestyle nor tendency towards continuous productivity. Moreover, Erin's construction of productivity as part of who she is, and as that which structures even intimate realms of her life such as sleep, begins to reveal optimization. The cheerful way that Erin reports her difficulty sleeping exposes her acceptance of optimized productivity culture even in instances that may work against her. In this way, optimized subjectivities promote what Boltanski and Chiapello (2005) have referred to as the waning of critique. That is, in encouraging the acceptance of existing conditions as the only possibility, such subjectivities render unquestionable the conditions of neoliberal capitalism. These subjectivities, offered through the technology of optimization, exhort individuals to continually work on themselves and make the best of their circumstances within the terms set by capitalism, rather than challenging these terms.

Another white, upper-middle class employee, Ken, spoke of the enjoyment he derives from physically exercising not once but twice daily; being one of his team's top consulting performers; and, spending his evenings with his children and wife who is a stay-at-home mother. Ken manages his productivity in these various realms without worrying about the cost of childcare, nor about his family living off of his sole income. Ken explains that one of the reasons for his carefree perspective is, due to access granted through his parents, he has a membership at Renegade, an elite, members-only recreational facility. Among other benefits, this club offers childcare at a fraction of the price of a typical nursery or daycare. Ken notes that he and his wife frequently use this childcare on weekends, or when she needs a break from managing and executing the domestic labour for their household. Since Ken is not predominantly responsible for the organization or execution of domestic duties in his household such as childcare, cooking or cleaning, he constructs the private realm of his life as productive by instead focusing on his physical wellness and relationship-building with his family. This stands in contrast to Erin, a woman from a similar class and race background, who reports deriving pleasure from cooking and making social plans, activities understood to be domestic labour rather than leisure, and gendered as feminine. Here, we can begin to see how the technology of optimization hails subjects differently in gendered ways. Although the "ideal" subject in the tech sector is white, male, and cisgender as discussed in the previous chapter, the women and non-binary people working in the sector face a double-bind through which their professional subjectivity is co-constructed against their femininity, with both consistently being called into question. Considering this gendered context, one of the ways in which Erin negotiates her professional subjectivity is to construct the domestic labour that she completes as a labour of love, which incorporates the feminine aspects of her professional subjectivity into the logics of optimization.

Ken and Erin in many ways exemplify neoliberalism's ideal subjects as they both answer the call to be productive in ways that are aligned with normative patriarchal, capitalist structures. The aspects of their private lives that they construct as pleasurable show how the technology of optimization works within rather than against normative structures. In contrast, Elizabeth, who is from a middle-class family background and marginalized racial group, described her experience of productivity as a source of pressure

that nags at her relentlessly in multiple domains. When she is productive, her anxiety was assuaged, yet, she did not report this as pleasure but rather relief. While one could argue that this is due to differences in how interviewees believe they are *supposed* to feel, it may also reveal the tangible barriers Elizabeth faces when compared to Erin and Ken who are more socioeconomically privileged individuals, on the basis of race and class. Taken together, the feelings that these participants convey about productivity begs the question, what social factors contribute to the construction of round-the-clock productivity as pleasurable? This is not to suggest that productivity can only be understood as pleasure or angst-evoking, nor that it is informed by positionality in a linear way. Yet, interviewees' accounts provide a lens into how employee constructions of their own productivity can reify meritocratic logics, through which success is understood to be the result of individual effort and innate ability (Littler 2018). Additionally, the fact that more privileged employees constructed productivity as pleasurable and performed it with ease reifies the notion that those who are having difficulty are simply not trying hard enough. Through optimization, certain feelings "stick" (Ahmed 2004) in ways that reinforce privilege through positionality.

Moreover, participants showed that, through optimized subjectivities, the merging of public and private realms offers rewards to employees in ways that are gendered. By offering women solace for the fact that they are being productive "just by lying there" due to pregnancy in the case of Elizabeth, by providing pleasure for preparing meals in the case of Erin, and through the satisfaction of completing various domestic duties in the case of Kyla, domesticity and personal productivity are transmuted into evidence of the optimized self. In a context in which women who complete paid work tend to take on significantly more unpaid domestic labour than men who also do paid work, this emerging configuration of productivity brings a myriad of consequences. This is a context in which in Canada, employed women spend an average of 5.6 hours less each week on paid work than men, and 2.5 hours more per day on unpaid work (Statistics Canada 2018). Additionally, women in Canada spend less time on leisure activities than men, and are more likely to take part in leisure at the same time as unpaid work (Statistics Canada 2018). Furthermore, this uneven gender divide around paid and unpaid hours continues to most severely impact

women of color, those from immigrant and working class communities, and trans women.[xxxix]

Although optimization might offer a range of personal pleasures and internal satisfactions to some as part of the quest to be productive, it can also serve to reify inequities through a politics of privilege. If satisfaction is derived from optimized productivity itself, regardless of the context, then there is less need to derive satisfaction from paid work. Simultaneously, unpaid work becomes further obscured, getting subsumed into a narrative of pleasure for care in a way that is decidedly gendered, racialized, and classed. While this might seem a critique that is itself bound by market-oriented logic, the fact that the vast majority of c-suite roles in North American tech companies continue to be occupied by white, cisgender, able-bodied men shows that inequity remains a pervasive feature of the highest levels of this sector. In this context, a culture that celebrates optimized productivity in private realms could facilitate a higher rate of professional participation and advancement among groups that already occupy coveted positions, thus further solidifying the status of a specific demographic in the labour force. While participation in the labour market is only one example of the potential consequences of optimized subjectivities, it provides a sense of what is at stake when productivity cultures increasingly take root at the level of the self and in the private sphere.

Overall, this discussion has shown how productivity is constructed and felt among employees as part of the technology of optimization. It demonstrated that employees internally locate the logic of optimized productivity to the extent that their senses of self are increasingly linked not only to professional accomplishments, but also to striving for productivity in personal realms. Indeed, one of the ways this technology of self is legitimated is by seeping into non-professional realms to maximize various aspects of life, rendering such ways of being morally commendable.

Conclusion

The ways in which the software employees I studied constructed their productivity reveals optimization as a technology of self that makes the productivity imperative all the

more powerful. There are three main ways that optimization can be said to "work" as a technology of self among employees. Firstly, the technology of optimization works by increasingly entangling the boundaries around professional and non-professional realms, and bringing an emerging set of moral specifications. These specifications construct the very act of being "productive" in public and private spheres (e.g. through working, exercising, socializing with colleagues, cooking, and even pregnancy) as desirable and good. Even in cases in which employees reported that the quest for productivity caused them difficulty, they still viewed the solution as additional productivity, thus constructing productivity itself as a goal to which they must continuously aspire in both public and private realms. Secondly, the technology of optimization works by locating the possibilities for optimization within individual employees. In doing so, it "empowers" them to manage productivity in their lives, while simultaneously responsibilizing them for any inefficiencies or exhaustion. Thirdly, and relatedly, the technology of optimization invites subjects to transform difficult feelings or tensions related to their professional productivity through focusing on productivity in another realm. Yet, in a setting in which more privileged employees are able to offload the mundane and laborious aspects of private life to others, either as paid or unpaid labour, the moral injunction to demonstrate optimized productivity in the private realm can reify a politics of privilege.

If optimization obscures challenging conditions of work and structural inequities for software professionals, we might ask how it impacts non-professional workers within and outside of this sector. I implore future research to investigate how the technology of optimization, which calls forth certain affects and ways of being among a relatively privileged group within an influential sector, may serve to rationalize deepening societal inequities. Overall, as a technology of self, optimization creates emergent subjectivities that assist the productivity imperative in gaining moral legitimacy, compelling individual subjects to accept neoliberalism as a cultural project.[xl]

Chapter 6

Transparency, openness and privacy among software professionals: Discourses and practices surrounding the digital calendar*

Introduction

The digital calendar is commonly understood to be a productivity tool in corporations, and it is a site that provides platform for, and makes visible, employees' own constructions of their use of time. Sociologist Judy Wajcman (2019a, 2019b) has shown that the professional 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 objective and neutral, it is in fact a sociotechnical practice that is situated within specific political, economic, cultural and industrial contexts. In the present chapter, I investigate employee discourses about and practices with the digital calendar. I draw from my empirical data and analyze an important yet often overlooked component of professional subjectivity. During interviews, many interviewees enabled me to view their calendars, in addition to answering questions about their calendar usage. My participant observation at a software organization also informs the discussion, through which I was able to view and assess the digital calendars of employees.

The chapter is divided into three main sections. Firstly, I examine how the digital calendar's infrastructural affordances influence its usage, and with what consequences for professional subjectivity. Secondly, I discuss the practices with and discourses about "open" and "private" digital calendars among employees. Here, I assess a paradox, through which those who use "open" calendars develop specific sociomaterial practices to attempt to gain privacy on the platform. Additionally, in assessing usage of and discourse about the calendar, I show how affect sticks to certain employees based on organizational hierarchies. Thirdly, I assess how calendar usage helped to legitimate and exacerbate how employees understood and felt the entanglement between public and private realms, and how this relates to the optimization of the self, and to agile illumination, discussed in

previous chapters. I demonstrate that what is exposed via the digital calendar conveys social rewards in ways that influence existing privileges. Throughout, I assert that the sociotechnical affordances of the digital calendar, and the affects these evoke, hail specific subjectivities as "ideal," which employees then negotiate from an uneven landscape. In fact, the logistical and organizational functions of this sociotechnical artefact play a prominent role in the affective dimensions implicated in its use.

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: 1456). This notion of circumscribed time is evident in what Wajcman (2019b: 323) 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 in which digital calendars tend to show 30- or 60-minute blocks or "chunks" of time that can be easily dragged to various slots (Erickson & Mazmanian 2016: 5). As a temporal logic embedded within the calendar platform, circumscribed time "tacitly defines a 'good' day as a 'full' day" (Mazmanian et al 2015: 1461).

Furthermore, the digital calendar is a "logistical media, part of the infrastructure that configures arrangements among people and things" (Wajcman 2019a: 1272). The calendar indeed affords a logistical function; that is, to plan and capture temporal and spatial arrangements of human and non-human actors. Yet, the practices that digital calendars compel among the employees I studied demonstrates that their function extends beyond mere "ordering" or "timekeeping." Instead, the digital calendar can be understood to be what Sherry Turkle (2007) has described as an "evocative object." As I will show 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 our social relations.

The software companies at which my interviewees worked all set the default professional calendar to "open," a common practice reported in Silicon Valley tech companies (Wacjman 2019a). This institutional preference for calendar openness is implemented through an *infrastructural* discourse within the platform. As scholar Tarleton Gillespie (2010) has shown, the ways in which online platforms are structured communicates certain discourses, which convey value systems. When a particular 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 company. This infrastructural setting is simultaneously an institutional discourse that encourages employees to keep their calendars "open." Through this infrastructural setting, and the sociomaterial practices it compels, subjects are imbibed to *be* open through revealing aspects of their lives and selves on this platform. In this context, if employees wish for their calendars to be private (i.e. so that the contents of their schedules are not visible to others), they have to adjust their individual settings, diverging from the default. Thus, the default calendar setting encourages the use of "open" as opposed to "private" calendars. On this point, if "habit is ideology in action" (Chun 2016: 9), then among software employees, "openness" is a habitual calendar practice that comes to represent the transparency of employees. I further discuss "open" calendars, and the transparency this sociotechnical practice enables, in the subsequent section.

It is important to first note that there is an aspect of the design of the calendar that relates to the public-private entanglement that has been discussed throughout this dissertation. Similar to most popular calendar platforms, the digital calendars of employees I studied – regardless of the companies they worked at – offered a view of the full day, rather than showing the conventional work day, e.g. 9 a.m. until 5 p.m. This design choice communicates an institutional discourse both 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 (Pupura et al 2011). Moreover, this design choice intersects with the aforementioned public-private entanglement as it reinforces the notion that even personal time should follow an ethic of

busyness that includes private life. The design of the calendar helps to persuade employees to fill the platform up with activities that take place outside of the professional realm.

Furthermore, the topic of filling calendars with even non-professional activities in hours commonly understood to exist outside of the conventional corporate workday – a practice facilitated and encouraged by the calendar design – is undergirded with the ideal that what is not useful is dispensable. As scholar Sara Ahmed (2019) argues in her critique of the theoretical underpinnings of "use" in capitalist societies, 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 catalogue 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. As I will show, personal and social activities are deemed useful to include in the professional calendar in part due to the fact that the cataloguing of these events further extends the logic of productivity to the private sphere, and allows one to display 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. In such a context, empty slots of time in the calendar, even during off-hours, signify wasted time. The calendar may, in fact, assist subjects with the optimization of the self. Below, I begin my empirical analysis with a discussion of the central discourses surrounding calendar usage among the employees I interviewed.

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

As noted above, interviewees reported that the companies they worked for set employees' default calendar settings to "open." It is telling that Monica, a mid-level software developer who is a white woman, commented that she had not realized private calendars were an option, and it was not something she thought about. This employee also humorously noted that even if she wanted to change her calendar to private, she did 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 my interviewees worked, even calendars set to "private" still showed the outline of schedules and thus "busyness." In other words, using a "private" calendar means that schedules remain visible as blocks of "busy" time, although it is not possible to view what these people are busy with. Thus, busyness itself remains on display and there is no affordance for opting out of this visibility. Moreover, it remains possible for certain senior-level people within the organization to view the contents of even "private" calendars if they desire to do so. Considering that, it is significant that non-open calendars are constructed as "private." This dominant institutional construction imbues the discourse of calendar "privacy" with a lack of choice about maintaining a certain 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. Thus, surveillance is a prominent aspect of the institutional discourse of privacy at software organizations, a point I return to in the sections below.

Furthermore, the majority of the employees I interviewed stated that they left their professional calendars open, enabling anyone within the organization to view their schedules. During interviews, I asked several employees to show me their calendars and, for others, I viewed their calendars during participant observation. Most of the calendars I viewed were indeed set to open. Additionally, several interviewees reported that making their calendar activity visible demonstrated that they were being open and, in doing so, conveyed "transparency." In the subsequent section I suggest that such constructions of openness and transparency belie a more complex story. I investigate a paradox that emerged through employees' constructions of and practices with professional digital calendars.

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

"Transparency" was often spoken about by interviewees in relation to whether or not their professional digital calendars were set to "open" or "private," even across career

streams. Jared, a mid-level software development employee who is a white man, noted that his calendar is intentionally public for all of his co-workers 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 stated, "I like people to know exactly what I'm doing." Additionally, Leslie, a mid-level customer success employee who is a woman of colour remarked, "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 commented, "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 was often constructed by interviewees as a means to convey their enactment of "transparency" within the organizations at which they worked.

Moreover, as some of the above quotes indicate, employees often constructed 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 sociomaterial norms govern the ways in which the digital calendar was used and understood. These norms also helped to shape employees' relational understandings of each other. For instance, among some of the employees I interviewed, the calendar acted 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 noted, "Umm I've just had bad experiences with people who keep it private." Upon being asked about this she replied, "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 colour, reported, "I have a very negative perception of people who make their calendar private." Moreover, Jared, the software developer quoted above stated, "I think that it signifies maybe you're just **needlessly secretive** or something like that," and then added "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 used 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 harbouring a secret(s), while doing so "needlessly" implies that these people do not have a valid reason for this "privacy." Overall,

among interviewees, employees who used "open" calendars were predominantly constructed as transparent *people.*

When speaking about calendar privacy, multiple employees noted a logistical purpose to leave their 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. On this topic, a mid-senior level product manager who is a white woman, Claudia, stated:

> 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, described 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 tended 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 *his* life. Judith's comments also gesture towards the affect that surrounds – and indeed may stick to – discourses about and practices regarding calendar privacy. For Judith, use of the private calendar setting is felt as "super annoying," and she connects this use to a broader

industrial value around openness, which she herself espouses. In fact, the calendar may serve as a sociotechnical artefact through which the agile self is performed. From the selection of an "open" or "private" calendar setting to the way in which employees decide to catalogue events within the calendar – and indeed the kinds of events they share – the calendar becomes a means to perform the ways in which employees take up certain industrial values. On the digital calendar, the self is performed in ways that convey transparency and optimization, two values that are central aspects of the aforementioned agile self.

Furthermore, 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 highly privileged positionality of a white, male, 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 used open calendars commented that there were 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, non-routine health or medical appointments, and some social events. Furthermore, various other tactics were used to maintain privacy. These included mild concealment techniques, one of which was described by Jared, who exclusively used his professional digital calendar, but only added his personal events in vague terms. For instance, he describes having plans to meet Jeremy Smith for beers, and catalogues this in his calendar as "Beers with JS." He says that this enables him to maintain privacy while still being "open," and that this is important since he is often meeting with people from within the industry and does not wish for his workplace to know about 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 the organizations at which they work. The paradox here is that although employees who kept their calendars private were commonly thought of as "hiding" something or themselves, in fact those with open settings tended to use a strategic approach to managing their calendars as part of their effort to convey "transparency." In conducting additional administrative work as part of this effort, these employees evoke what scholar Mikkel Flyverbom (2016: 112) 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. In fact, the ways in which these visibilities are felt by coworkers can reveal how affect sticks based on seniority level since, interestingly, not all employees who used private calendars were constructed as "hiding" or "secretive." In the subsequent section, I explore the relation between organizational hierarchy, affect and employees' practices with and discourses about the digital calendar.

Deserving privacy or "hiding": How affect sticks in organizational hierarchies

Some of my interviewees pointed 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 senior-level employees "have sensitive things they're doing." Eric reveals a frequently noted assumption about calendar practices. That is, non-senior level employees who set

their calendars to private were commonly described as "hiding" or "secretive," whereas more senior-level people (i.e. senior managers and organizational leadership) were thought to have entirely justifiable reasons for such privacy. Additionally, some employees communicated strong negative feelings toward non-senior level people with private calendars. Tim, a junior level consulting employee who is a white man, and is widely regarded at his company as a "rising star," stated:

> 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 level 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 specific affects "stick" (Ahmed 2004) to certain bodies through discourses and practices concerning calendar "privacy" and "openness." Specifically, his statements expose how strong negative affect such as hatred can become bound to non-managerial and more junior level employees who – at times unwittingly – set their calendars to private. In fact, the violation of normative practices of calendar usage among non-senior level people often evoked strong negative affect among 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 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 to center what the discourse about calendar secrecy communicates. Her comments expose digital calendars as platforms that – depending on the setting used – help to 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 a higher-ranking subset of the workforce, casts the privileges that senior-level people have as those that are 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 of domination including white supremacy, patriarchy and colonization. Moreover, strong negative emotional sentiments being expressed toward non-senior level people who keep private calendars gestures towards the embeddedness of tech platforms into everyday professional life. At the software companies at which my interviewees worked, 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 certain settings within calendars reveals these platforms to be anything but neutral technologies. In fact, it is precisely the presumed neutrality of calendars, along with their pervasive presence in the everyday lives of those who use them, that make them ideal spaces for reifying inequitable power distributions, even within settings in which many junior employees are considerably privileged. In the following section, I investigate how discourses and practices surrounding the digital calendar reveal the challenges employees face in managing not only their schedules, but also the entanglement of professional and personal life.

The digital calendar's affective entanglements: Public and private life

Most of the employees I interviewed reported using a separate professional and personal calendar, with a small subset who solely used their workplace calendars to manage their entire schedules. Most employees who managed separate personal and professional calendars reported frequently switching between the two rather than syncing them, and suggested that this was often administratively burdensome and time-consuming. Additionally, relying too heavily on the professional calendar created a host of perceived risks regarding managing personal and professional life. Claudia, the product manager previously quoted, mentions that she places all of her daytime appointments in her work calendar. She stated:

> [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.

Thus, 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 digital 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, and vice versa, can lead to scheduling mishaps. For instance, when one unexpectedly loses access to their professional calendar, this can lead to missed appointments, meetings and social plans in both spheres. Employees' reports of at times blundering through their calendar management exposes that digital calendar practices are cultivated skillsets. It exemplifies what Wajcman (2019a) refers to as "calendar work," which she describes as a type of "skilled labour," or a competency necessary to develop. As Wajcman (2019a: 1278) notes, such work is comparable to many "self-tracking practices" (citing Lupton 2016; Neff & Nafus 2016; see also Elias & Gill 2018; Lupton 2014). The frequent usage that the professional calendar compels, and its affordances that facilitate comparisons to others, serve to encourage ongoing self-monitoring and governance.

Not only do constructions of and practices related to digital calendars perpetuate the notion that employees are themselves responsible for how they allocate time, they simultaneously reinforce the fallacy that they are in control of their time. As a productivity tool that is foremost concerned with enabling the best and most efficient use of time as defined by the workplace, digital calendars are a site at which self-improvement discourses about time management collide. As time management tools, calendars are imbued with a fetishization of "time optimization" (Wajcman 2019b: 318) and reify the notion that to be productive with one's time is not only useful, it has also become a moral imperative. As scholars Gilly Leshed and Phoebe Sengers (2011) argue, this imperative is so embedded in everyday life that productivity tools such as the calendar have come to 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). Yet, my study shows that the moral dimensions of calendar usage are also fractured along lines of organizational seniority. 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. The fact that non-senior employees with private calendars were often referred to in unfavourable terms, and that some of their coworkers reported even "hating" them for this practice, highlights these moral dimensions. I assert that one reason multiple employees felt so strongly about the refusal of open calendars is that, metaphorically, this was comparable to siphoning off one's own private area in the physical work space. For a more junior employee, to use a private calendar was to make a claim to digital space in an area that was 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. In fact, the ways in which calendars were used and understood by interviewees in relation to their private and public lives also related to social exclusions, discussed below.

Beyond logistical media: The social life of the digital calendar

The constructed common sense around open calendars, and the affect reported among interviewees for transgressions in normative calendar usage, bring to life scholar Wendy 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 also offers a sense of immediacy. 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.[xli] This visibility of individuals' location in time affords felt nearness, and gestures toward the continuous presence that is constructed as a prominent aspect of the agile self. At the same time, the calendar is 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. Consider the case of Eric, quoted previously. Eric speaks about the elite, "cool," adventurous subculture at the software workplace at which he works, and notes that his coworkers often speak 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. Here, he described disliking that social media created "FOMO."[xlii] 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 not the phrenetic pace of life nor an unmanageable volume of work. It is instead employees' willingness to center themselves in the present moment and to encounter time in a way that is both focused and purposeful (Sharma 2014). Yet, Eric also spoke of having a preoccupation with what he describes as "calendaring" and reported frequently checking other people's calendars to determine if there were meetings or social events that his coworkers might be excluding him from. He notes that there is a "cool" group of employees 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 employees 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. In a sense, the open calendar, and by

extension the institution itself, can be said to sanction these exclusions. Moreover, the aforementioned sense of immediacy that the calendar affords may deepen felt affects 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 is understood to be a "top performer," yet, he explains that when he has approached senior leadership about advancing, he has received reactions stating that he is "not ready" for such a move. 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 also 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 the way he does, 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.

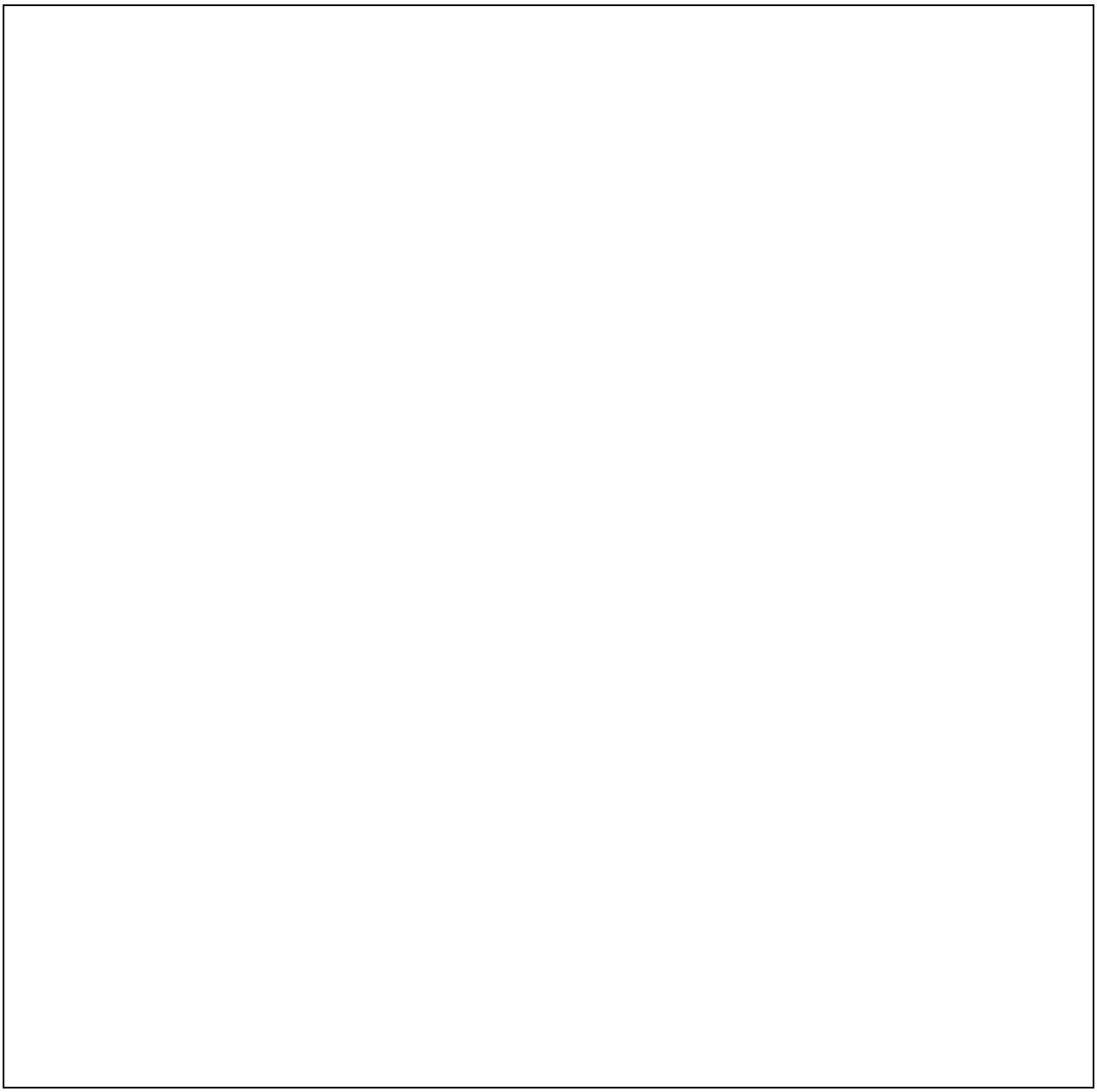
As Eric notes, for him the professional digital calendar emulates social media by facilitating continuous surveillance and comparisons between the self and others. He also alludes to the fact that "calendaring" involves a performative dimension through which it matters greatly what is visible within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

Eric's account corroborates Wajcman's (2019a) observation in her study of the imaginaries of digital calendar designers. Wajcman (2019a) reveals 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, my 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 previously, the design of the calendar offers a full day view, rather than a view that centers simply the workday, with parameters defined by an eight-hour day. This design choice nudges employees to fill up the empty space in the calendar, even when it represents time during hours outside of the typical workday. In fact, it was 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 would frequently indicate where they were going and for how long e.g. "Taiwan, 7 days." Moreover, whether or not employees are taking part in their scheduled activities is somewhat beside the point.[xliii] Instead, of central importance is the open, performative element of "calendaring," which includes the display of non-professional 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.

Although a prominent aspect of calendar usage relates to the performative element discussed above, this is not to suggest that interactions through the calendar do not reach subjects' inner lives. In fact, the digital calendar is a medium through which employees

construct themselves according to intersubjective norms in the organization. In the process of constructing oneself in the image of the organization, one also constructs their own self-understanding. Indeed, 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 employees negotiated this demand to be "transparent" through conveying negative affect towards those who use the private calendar. They also negotiated it through displaying robust social lives in both professional and personal realms. On this point, as Flyverbom (2016) notes, the logic of transparency within organizations suggests that making information visible circumvents bad behaviour from taking place. At the same time, such logic creates organization and industry specific ideals around employee conduct (Flyverbom et al 2015). As shown in previous sections of the present chapter, individuals lower in organizational hierarchies were expected to conform to open calendar practices as indications of their trustworthiness. As they were not restricted from changing their calendar settings, they were given "autonomy" with enacting or challenging these practices. At the same time, employees were exhorted to understand this institutional logic as though it came to them "autonomously," which is precisely what makes this logic so powerful in terms of self-understanding. As Melissa Mazmanian, Wanda Orlikowski and JoAnne Yates (2013) have shown, the ways in which mobile platforms are used can become integral aspects of the construction of professional subjectivity. In their study of mobile email usage among knowledge workers, certain practices with and interactions through the technology "reaffirmed and enhanced these workers' sense of themselves as competent professionals" (Mazmanian et al 2013: 1354). Thus, displaying the self in certain ways compelled by the organization or industry impacts how people make sense of themselves and their lives (Hochschild 1983). Eric, mentioned above, emulates this point. He prided himself on providing rapid responses to instant messages. Eric sheepishly noted that this has become an issue at times in his personal life, in which he finds it difficult to resist responding to his professional messages even when, for instance, on vacation with his partner.

Redactions due to confidentiality of participants.



Overall, how employees interact with the digital calendar can reveal 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. Moreover, an aspect of the public-private 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, an important aspect of the performative dimension of busyness extended into the private realm. It seems that it has become necessary for many employees to place a robust private life on display in their professional

calendars as evidence that the pursuit of busyness is an ingrained aspect of one's life. 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. Indeed, 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, the ways in which 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 so-called "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. That is, in capitalizing on the entanglement between public and private, the digital calendar affords an opportunity for employees to respond to a call in self-improvement discourses to let the self "be seen." As the chapter has shown, employees respond to this call from an uneven landscape. Their positionalities, including their positions in organizational hierarchies, govern not only their usage of the calendar, but also their discursive and affective constructions of this use.

Conclusion

Digital calendars are what Turkle (2008: 129) might term "seductive" technologies, as they "give the sense that one can do more, be in more places, and control more aspects of life." In compelling individuals to catalogue the professional and personal events of their lives, the calendar offers a sense of predictability. Yet, the calendar is only predictable insofar as it is full. In fact, we might consider a "threat" involved in leaving empty space within the digital calendar. That is, if empty space is imbued with what scholars Paul Frosh and Amit Pinchevski (2018) refer to as the continuous possibility of "eventfulness," this possibility also includes the potential to have one's time seized by others. Considering that many high-tech employees report being harried due to the deluge of requests, communications and high work volumes (Wajcman 2014), part of the reason it becomes

compelling to fill empty calendar space is to prevent one's time from being apprehended. Thus, digital calendars *do* provide individuals with a sense of control over their time and lives, and have considerable logistical functions. Meanwhile, they also offer a myriad of affective dimensions in relation to the social context of the organization.

Based on my empirical research, and drawing from studies that highlight the affective and identity-based practices that the calendar has a role in (Leshed & Sengers 2011; Mazmanian et al 2015; Wajcman 2019b), I have demonstrated that digital calendars enable affordances that share some similarities with social media usage. While the digital calendar is *not* a conventional social media, it has certain capacities that bear resemblance to those of social media platforms. Similar to many social media, the group-based, professional digital calendar tends to enable scrolling through one's own and others' schedules. Additionally, social media are typically understood to be resources that afford individuals the capacity to consume a continuous flow of information, and the ability to focus upon events they deem important (Chun 2016). While the calendar does not depict how events are experienced as social media platforms might, it does frame a series of temporal promises around the eventfulness of what has passed, what is to come, and where one can situate oneself 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 usage of the digital calendar[xliv] compels, showing it to be a site through which the busyness orientation predominates (Leshed & Sengers 2011). Yet, the shared or group professional calendar also enables surveillance, not only by the self, but by various employees and institutions. It compels distinct engagements that go beyond following the ethos of busyness.

If, as we have seen in this chapter, private calendars are predominantly constructed by employees as "overtly secretive" among employees, open calendars can be thought of as "covertly open." This is not an unabridged openness. I do not wish to suggest that employees are conspiring in a conscious way to use their calendars to achieve certain aims (e.g. trust among coworkers). Rather, that calendars are sites of subjectivation that compel employees to act, perform and feel in certain ways that support, and occasionally challenge, the logic of organizational hierarchy. The way in which the calendar is designed means that empty calendar space is imbued with affective possibilities. This is precisely how the

calendar facilitates subjectivation and makes its imprint on the inner lives of employees. In fact, digital calendars are "seductive" technologies in that they create compulsions to fill this space up, and to monitor it exhaustively, in part as a means to assess oneself. They are also "evocative" in that they help shape our feelings and understandings about various events and also influence our memories about these events, whether we took part or simply bore witness to them on the platform. Far from being a neutral platform purely used for scheduling administration, the digital calendar compels certain interactions, feelings and self-understandings, and serves to reproduce social exclusions. Furthermore, even the employees who reported exclusions through calendar practices also reported senses of 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 both employees and the institutions at which they work. They offer some rewards and positive affects to employees, while shaping ways of being that conform to a regime of organizational power.

Calendar practices help to constitute "good" professional subjects through compelling 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. Additionally, conveying strong feelings about (not) following these practices demonstrates how the rules governing calendar usage pertain to self-understanding in professional contexts. To "hate" non-senior level employees who use "private" calendars is to communicate an understanding about one's own place in the organizational hierarchy. It shows that many employees are interpellated through these sociomaterial affordances to feel and understand themselves, and their organizational counterparts, to be less deserving of so-called "privacy" in the workplace.

Moreover, in affording an opportunity to perform the self in both public and private realms, the calendar may assist employees in constructing themselves as agile. That is, it allows them to constitute themselves as not only transparent but also optimized, all while enabling their schedules to be permeated to increasing degrees. Here, in illuminating subjects' anticipated spatial and temporal coordinates, the digital calendar affords a *felt* continuous presence with one's team, and facilitates the ongoing adaptability of employees' time. That is, on the calendar itself, it is possible to grab and drag blocks of time, to open up

time blocks and add other people into scheduled activities, and to add or delete events entirely. In other words, through the calendar, employees' schedules become permeable by other employees and, by extension, the organization itself. Furthermore, the tendency to catalogue events from both public and private life affords the capacity to perform the self as optimized in these spheres, and simultaneously entrenches the permeability of employees' lives by enabling increasing access to their schedules and time. Thus, in software organizations, the digital calendar can be understood to be an object that assists in constituting the agile self.[xlv]

Chapter 7

Conclusion

The notion that self-improvement can be a motivating imperative to encourage working harder is an idea that dates back to the early 20th century research of Lillian Gilbreth (Gregg & Kneese 2019; Gregg 2018). Since Gilbreth's time, much research has applied a critical lens to investigate iterations of this imperative in the context of neoliberalism (Cabanas & Illouz 2019; English-Lueck 2010; Gill & Donaghue 2016; Gregg 2011, 2018; Illouz 2007, 2008; Rose 1998; Scharff 2016, 2017). My research contributes to this body of literature by offering an ethnographic examination centering how individual employees negotiate self-improvement discourses that have become increasingly bound to regimes of organizational and industrial power. My study also complements the work of scholars of technology and culture by providing a critical account of the complex ways in which neoliberal subjectivity works itself out among employees working in software.

My research question has asked: how are self-improvement discourses constructed and negotiated by tech institutions and employees in the software sector, and with what consequences? Addressing this question has enabled me to identify the values embedded within organizational and industrial discourses that exhort employees to improve the self. In grappling with this question throughout the course of my research, I have found that the "mushy stuff" (Beck et al 2001) of professional subjectivity in software in fact relates to broader political economic forces. I assert that with a better understanding of how self-improvement works for employees in the sector, we are confronted with this political economy, and with the possibility of changing our orientations towards it, in addition to conceptualizing how *it* may change.

Self-improvement discourses play an increasingly important role in people's lives, both within and outside of professional settings. They can, for instance, assist individuals in building relationships, navigating conflict, and growing their careers. These discourses also assist in helping people through significant health crises. That being said, since self-improvement discourses take shape in inequitable societies, it is important to understand

what they ask of people. The software industry is a compelling site where self-improvement discourses unfold against a backdrop of hierarchical-yet-informal professional settings. In such settings, the ethos of self-improvement collides with and collapses into managerial discourses and organizational models of work such as agile. Moreover, the blending of management discourses with self-improvement is evident in employee discourses and practices in the industry, as well as in the cultural resources that I have mentioned in previous chapters. With this final chapter, I provide an overview of the key findings of my research. I also reflect on what is at stake at a time when professional software employees are increasingly called to structure their inner lives through the logics of an industry-specific marketization.

This dissertation contributes to research focused on the cultural politics of emotion in technology organizations, and also to an aspect of the cultural politics of software production. As platform-based software products increasingly influence the daily lives of "users," an interrogation of culture within this powerful sector provides an oft-overlooked aspect of the discourses and practices that accompany the production of technologies. As Benjamin (2019) points out in her investigation of how racism gets imprinted into technology, everyday discourses in tech workplaces are a central means through which values are legitimated and challenged in professional settings. Such discourses also help to shape the values that get inscribed within technologies (Benjamin 2019). Furthermore, inquiries into production and culture facilitate a better understanding of the ways in which power is configured in professional settings. Such inquiries add important background that also informs our understanding of software consumption since, as Gurses and van Hoboken (2017) point out, contemporary software production and consumption are intertwined. Overall, as platform-based software products increasingly influence the daily lives of "users," an interrogation of the cultures of this powerful sector provides insights into the contexts in which technologies are made and managed. In centering the negotiation of self-improvement discourses, my research advances studies of industry-specific professional subjectivity and exposes some of the ways in which industrial values figure into employees' interior lives.

Furthermore, the sociology of emotion has long been studied in professional workplace contexts. My study adds to this research a ground-up exploration of the ways in

which industrial values come to be negotiated at the level of the self. My inquiry needles into how these values intersect with self-improvement discourses, and impinge upon employees' lives in ways influenced by positionality, hierarchy and social context. While I acknowledge that this process is complex, I also assert that ways in which industry-celebrated self-improvement discourses bear down upon the affective-emotional realm for employees is an important aspect of the political and economic impact of this powerful sector.

Moreover, my study has also shown how this complexity is held together through a widely-accepted, flexible industrial framework. The agile model as an organizational framework – which has been said to offer "business agility" and rapid response to "market and environmental changes" (Gurses & van Hoboken 2017: 7) – promotes and privileges certain routines and practices amongst employees in the day-to-day. I have found the agile model to offer a framework that can be adapted to suit various situations and settings while holding together key industrial values. In other words, although the agile model presupposes change, the discursive dimensions and related practices that the model compels enable it to continuously center core industrial values. In highlighting the discursive dimensions of the Agile Manifesto, I have drawn out what I consider to be the central values of the agile model as I encountered them during my fieldwork including optimization, transparency and continuous adaptability. I assert that the agile model has institutionalized flexibility concerning the ways in which these values become embedded into desirable subjectivities within professional software settings.

My overarching finding – which builds on a longer tradition of studies in this area – suggests that there was no single self-improvement discourse taken up in the professional settings I studied. Rather, I encountered more of an assortment of self-improvement, with bits and pieces taken from a variety of discourses. Interestingly, this piecemeal approach to appropriating self-improvement was held together by the dominant discourse about agility, which perhaps speaks to "strong ideas loosely held" being a common industry aphorism.

The agile model and the public-private entanglement

The software sector of Canada is imbued with ideologies from big tech in Silicon Valley. Within Silicon Valley, a countercultural ethos pervades the sector, heralding tech celebrities as heroes and compelling employees and industry hopefuls to be passionate about their work, reject convention, orient towards optimization, and pursue experiences that involve inner revelation and self-transformation (English-Lueck 2010, 2017; Turner 2006, 2009; Streeter 2015). This ethos has indeed travelled to cities considered tech hubs within Canada, and perhaps especially to Toronto and Vancouver. Within these Canadian cities, as in Silicon Valley, many employees within the tech sector are continuously looking for ways to improve. Managers and leaders are, similarly, continuously searching for new ways to inspire themselves and their employees. I encountered self-improvement discourses again and again in the field, both in institutional discourses and threaded throughout employees' individual stories.

A key feature of self-improvement discourses within the industry involved encouraging, celebrating and/or taking as a given the public-private entanglement. In fact, I posit that this entanglement is at the center of the agile model's discursive features, helping to bolster the employee conduct that the model centers as desirable. Specifically, the public-private entanglement enables a continuous presence on one's team, and also supports ongoing adaptability regardless of the spatial and temporal limits of the workday. Furthermore, the entanglement legitimates subjectivities that are not simply productive but optimized, and preoccupied with maximizing oneself and making the "best" of often contradictory aims. Finally, the entanglement also encourages increasing transparency among employees, as it compels them to perform themselves in ways considered desirable to the organization, including in their private lives.

Optimization, transparency and self-improvement

Throughout this research I have asked, what does it mean to be agile in software, and how is this imperative being taken up by employees? Moreover, in what ways does

negotiating the imperative to be agile bring employees closer to embodying the "ideal" subject in software? In focusing on the discursive dimensions of the *Agile Manifesto* as an expert resource, and the affective-discursive dimensions of employees' negotiations of the agile imperative, I have found optimization and transparency to be prominent industry values evident in industry constructions of the agile model. I have also noted that the ways of being that these values are located within are continuously adapting.

Moreover, the dominant values found within professional software settings are productive, in the Foucauldian sense. Transparency, for example, helps to *produce* certain ways of being and feeling. It is an industrial value that discursively circulates the idea that being "secretive" or private about oneself as an employee – evidenced by, for instance, using a private calendar – is at odds with the imperative to be agile within software production. In doing so, the discourse around transparency compels not only the practice of keeping an open calendar – and associated feelings towards more junior-level employees who refuse to do so – but also the ongoing self-oriented work of living an "open" life. Here, while openness is centered upon enabling a view of what is inside, transparency is the strategic operationalization of openness, which assures onlookers that there is nothing to hide. Yet, the institutions that render transparency a desirable value are also those that have the power to illuminate certain settings and people, and to offer "privacy" to others. In such a context, it is in organizations' best interests to encourage desired subjectivities at work by capitalizing on the notion that such subjectivities are also "good" outside the context of work.

The discourse of transparency builds on a prominent aspect of self-improvement discourses, which encourage subjects to let themselves be "seen," and to share the innermost parts of themselves. This discourse can also be noted in the self-improvement quest to live in a way that reveals the "full" or "whole" self, including in the context of work. The fact that this discourse about the importance of revealing the inner self has been identified within a range of self-improvement materials (Chiapello & Boltanski 2018; Illouz 2007, 2008; Silva 2015), serves to legitimate transparency of the self as an ideal. Moreover, the long history of self-improvement imprinting upon management discourses has been thoroughly studied, and it has been exposed as a means to inspire desirable employee

conduct in a way that seems to come to them "autonomously" (Chiapello & Boltanski 2018; Gregg 2018; Rose 1998).

Indeed, as an employee orienting towards being transparent and optimized, not simply at work but as part of who one is, the boundaries around what is best for the self and the organization become blurred. In fact, Turner (2018) has shown how software organizations have compelled employees to understand the workplace to be part of a broader community, often constructed as a benevolent social force. This relates to a second way in which the discourses about privacy and transparency are legitimated. That is, through the parallel industrial discourses on these topics. In software, the discourse of transparency among employees dovetails with that in the broader sector. In the industry, transparency is mobilized as a strategic tool that props up the quest for online openness and discursively legitimates widespread data acquisition. In conceptualizing of the workplace as part of a broader industrial community that is on a quest to facilitate openness, transparency is strategically mobilized.

Furthermore, discursively, the notion of transparency itself is constructed as a moral good. On this point, exposing the myopic emphasis on this value, Bratich (2016: 180) has stated, "it's as if, in the broad daylight of truth, we have forgotten that the sun is but one star in a solar system." Indeed, although transparency has come to be a proxy for "truth," it must be understood as a strategic value. This value has historically been mobilized by powerful institutions – government, military, medicine, and increasingly in the private sector – to surveil. In determining who and what is illuminated, transparency has brought forth egregious consequences for communities marginalized at the intersection of race and class (Ananny & Crawford 2018), which foregrounds why privacy is such an important aspect of justice among so-called "users" (Browne 2015; Gangadharan 2017; Petty et al 2018). Through conceptualizing of transparency itself as a "good" way of being for employees, organizations and the software industry – yet doing so in vague and decontextualized terms that do not specify who and what must be transparent – this value becomes a highly flexible category that can be drawn on to suit various aims.

Transparency also works in concert with optimization. In compelling employees to expose their lives, it becomes desirable to perform oneself as optimized not only at work, but also outside of it, as seen in the case of the digital calendar. Common practices with and

discourses about the digital calendar compel employees to show that they are "transparent" on the platform, and act as an object for performing the self as "optimized." The calendar helps to facilitate the performance of the optimized self by embracing the public-private entanglement, affording a view of the full day of schedules and compelling employees to fill up this space with both professional and personal activities. While it could be argued that the calendar merely affords the performance of busyness, which extends to both realms, in fact it also enables surveillance by self, colleagues and institutions, which compels specific sociotechnical practices in addition to displaying busyness. For example, these practices include engaging with the calendar in a way that shows a kind of maximization in both public and private realms by displaying events considered desirable by employees. The practice of displaying events from both public and private realms of life affords the ability to perform the self as optimized, and increases the permeability of employees' time and lives.

Moreover, the notion of the "collective subject" (Neubert 2015: 34) in software is one that deserves reflection, for it relates to the political economic dimensions of the sector. To work as a collective subject requires orienting to one's inner life with an affective light-heartedness that is continuously primed to adapt to the situation at hand. This collective orientation also involves making oneself permeable – spatially, temporally and affectively – to the organization for the purposes of working together communally, a pursuit that is constructed as beneficial to society at large. Placing the collective subject orientation at the center of the agile self means that the ways in which employees negotiate industrial values such as transparency and optimization will be consistently malleable. They will adapt their transparent and optimized ways of being to the needs of the team, in an agile way. Doing so centers the work itself and places the needs of the team ahead of one's own. Yet, rather than being about "collectives," the collective subject remains focused on what is best for the organizational team, which is foremost an entity centering the aims of the organization. If more political collectives were to form among workers that better considered their needs as a group, there may be more occasion to organize and, for instance, to unionize.

It should also be noted that the discourse of agility continues to change. As noted in Chapter 4, there is no *one* discourse, and it is doubtful that organizations follow the Agile

Manifesto (2001), nor the broader agile model in a prescriptive way. Thus, the present analysis is not intended to be an overview of what specific software organizations, nor the industry, expect or require from those who work within the sector. Instead, it is my hope that this research may assist individuals in reflecting deeply upon how aspects of their inner lives relate to a broader industrial culture.

With increased marketization, and with normative structures intact, self-improvement in the software sector calls employees to be transparent and optimized from an uneven landscape. This is a context in which employees are encountered in the world as "surface[s]" that continuously display their race, gender and class (Benjamin 2019; Samatar 2015). As surfaces, there are certain employees who more easily enjoy social rewards for taking up these discourses, a process shaped by positionality, organizational status, and social context. Considering this, I urge employees at all levels to pay attention to how certain self-improvement discourses celebrated by their industries may obscure a more intentional, and potentially political, understanding of the self. In doing so, it may then become easier to keep in mind the political economy of the sector. Such an awareness could help to facilitate occasionally pushing back on dominant industrial values in order to, for instance, seek out additional privacy not only for the self but also for the "users" that software organizations serve.

Limitations and implications

As previously mentioned, I did not initially set out to study the discursive-affective dimensions of ideal ways of being in professional settings of the software sector. In fact, my earlier goal was to study inclusion. Using an inductive approach, as I waded deeper into my fieldwork, it became clear to me just how vast the issues were around confidentiality, ethics and doing the kind of research I initially set out to pursue. Namely, in settings that have remained confidential in this dissertation and in all other write-ups related to it, to suggest that I was somehow anonymous and or otherwise unknown within the spaces I frequented would be a fallacy. Furthermore, considering the community I was surrounded by, and just how interconnected it was, providing the rich ethnographic detail and "thick

description" (Geertz 1975: 6) that is encouraged within this kind of study was often not possible to the extent that may have been desired by readers. The reason is simply that, had I included a comprehensive overview of people's lives, I would have had to alter details to such an extent that this would have impacted the analysis.

For these reasons, I decided to focus my analysis on the ways in which industrial culture was negotiated by employees, and what ways of being this compelled, including affective components. During my study, while sitting in on many hours of meetings, conference presentations, in day-to-day workspaces, and conducting interviews, I began to hear echoes of industrial discourses within the casual comments I was privy to, and in the stories I was told. Coming from an academic environment with a different set of values from that of a technology sector, these discourses were apparent to me from an early stage, and I began to draw out central themes. As mentioned, one of those themes, which I have not investigated in the present thesis, although I have begun to theorize it elsewhere (Ciccone 2020) was "vulnerability." This theme also became a prominent aspect of the interview questions I asked, which are appended. The ways in which the self-improvement discourse of "vulnerability" was taken up among my participants was fascinating to me, although outside the scope of this dissertation. Moreover, while listening to my study's participants make sense of their lives, I began to wonder why so many oriented to productivity in specific ways, and why transparency was so widely understood to be "good." It was also striking to me that the discourse about agility seemed to incorporate many of the values of the industry within its purview, yet, without explicitly stating this.

In the pages of this dissertation, I have shown that the inexplicitness evident throughout the agile model is precisely how this imperative incorporates values that are continuously changing. I have also shown throughout this study that the agile self is one who, at their core, embraces change and adapts conduct, including innermost feelings and the sense they make of these, in ways that the industry compels. Although I have not outlined explicitly the ways in which participants took up "mushy affect," in focusing on the affective facets of their discursive constructions throughout the dissertation, I have found what many scholars of affect have argued. That is, that affect is *cultural.* What is felt is never separate from culture, and is indeed inextricably linked to and informed by the social settings and historical contexts in which people find themselves (Ahmed 2004; Gill & Kanai

2018; Hochschild 1983). In other words, in software as elsewhere, affect is culturally situated.

It is indeed a limitation of this research that I was not able to go further in analyzing the precise differences in how employees affectively negotiated industrial culture. For that reason, I take my findings to be reflective of the ways in which industrial values were negotiated by employees in ways that will not necessarily be generalizable along lines of positionality. Furthermore, I do not wish to suggest that all people of similar positionalities to those whose stories I have included will construct their lives in ways that are the same as those outlined. Yet, I do believe it is worth considering the ways in which life histories become embedded into, for instance, discourses about optimization and transparency. Where possible, I have endeavoured to make connections between exclusions that participants encounter, and their positionalities, however, due to the considerable limitations around confidentiality, in many places this was not possible. It is my hope that future research – that which is perhaps less sensitive regarding confidentiality concerns – is able to conduct a thorough analysis in this regard in order to be a truly intersectional project.

Future research directions

By interrogating key texts as well as data from fieldwork in the industry, I build on research that has critically examined cultures of software production (Ames et al 2015; Harmon & Mazmanian 2013; Leshed & Sengers 2011; Mazmanian et al 2015). Although much of this research has exposed the importance of decentering the ideal subject position, there is still much to be done. Future research might, for instance, investigate ways to better center underrepresented and marginalized people within day-to-day conceptualizations of what it means to be "agile" in software production. In interrogating positionality in relation to professional subjectivity and industrial values, such research would provide a sorely needed account of the affective-emotional facets, and indeed the "psychic life" (Scharff 2016), of situated subjectivities in the sector.

It is also important for future research to ask employees to reflect upon how they make sense of themselves according to industry logics. Investigating this process at an individual level may indeed be a self-oriented process worth pursuing, with a lens toward sectoral possibilities in terms of re-imagining its political economy. That is, future research may explore the possibility of involving employees more in the research process so that they may be collaborators of sorts. Employees might reflect upon how they understand the ways in which industrial logics may influence their inner lives and feelings, and with what consequences if any for realms outside of work. While such research would be illuminating in its own right, it would also continue the work of engaging employees regarding the political economy of the sector, and would open up a space for them to comment on it. The latter is important since, as discussed, the sector does tend to be secretive, with networks and reputations mattering greatly.

Finally, future research might also explore how the agile model functions to center organization-specific values, which may or may not simultaneously be broader industrial values. This is an area I was not able to pursue as a result of the considerable ethical and legal barriers in this research. Addressing this lacuna would enable a focus upon the specific form that values such as optimization and transparency take within organizations. Although embarking upon such research may prove challenging for reasons of access and ethics, it would reveal how the agile model's institutionalized flexibility is put to work in specific organizational contexts, and to what ends. For their part, organizations that are open to such research may then begin to ascertain how to move from decentering an ideal subject to creating meaningful space for a multiplicity of subject positions. Such research would not only be compelling for organizations wishing to create more inclusive workplaces, it would also inevitably have implications for the ways in which online products are made, the values that are coded within them, and for whom they work best. When the ideal subject is destabilized in cultures of software production, alongside a careful questioning of industrial values, it may then become easier for employees to center the "users" who have been repeatedly overlooked, and also those historically marginalized.

APPENDIX

History: The Agile Manifesto

On February 11-13, 2001, at The Lodge at Snowbird ski resort in the Wasatch mountains of Utah, seventeen people met to talk, ski, relax, and try to find common ground—and of course, to eat. What emerged was the Agile 'Software Development' Manifesto. Representatives from Extreme Programming, SCRUM, DSDM, Adaptive Software Development, Crystal, Feature-Driven Development, Pragmatic Programming, and others sympathetic to the need for an alternative to documentation driven, heavyweight software development processes convened.

Now, a bigger gathering of organizational anarchists would be hard to find, so what emerged from this meeting was symbolic—a *Manifesto for Agile Software Development*—signed by all participants. The only concern with the term *agile* came from Martin Fowler (a Brit for those who don't know him) who allowed that most Americans didn't know how to pronounce the word 'agile'.

Alistair Cockburn's initial concerns reflected the early thoughts of many participants. "I personally didn't expect that this particular group of agilites to ever agree on anything substantive." But his post-meeting feelings were also shared, "Speaking for myself, I am delighted by the final phrasing [of the Manifesto]. I was surprised that the others appeared equally delighted by the final phrasing. So we did agree on something substantive."

Naming ourselves "The Agile Alliance," this group of independent thinkers about software development, and sometimes competitors to each other, agreed on the *Manifesto for Agile Software Development* displayed on the title page of this web site.

But while the Manifesto provides some specific ideas, there is a deeper theme that drives many, but not all, to be sure, members of the alliance. At the close of the two-day meeting, Bob Martin joked that he was about to make a "mushy" statement. But while tinged with humor, few disagreed with Bob's sentiments—that we all felt privileged to work with a group of people who held a set of compatible values, a set of values based on trust and respect for each other and promoting organizational models based on people, collaboration, and building the types of organizational communities in which we would want to work. At the core, I believe Agile Methodologists are really about "mushy" stuff—about delivering good products to customers by operating in an environment that does more than talk about "people as our most important asset" but actually "acts" as if people were the most important, and lose the word "asset". So in the final analysis, the meteoric rise of interest in—and sometimes tremendous criticism of—Agile Methodologies is about the mushy stuff of values and culture.

For example, I think that ultimately, Extreme Programming has mushroomed in use and interest, not because of pair-programming or refactoring, but because, taken as a whole, the practices define a developer community freed from the baggage of Dilbertesque corporations. Kent Beck tells the story of an early job in which he estimated a programming effort of six weeks for two people. After his manager reassigned the other programmer at the beginning of the project, he completed the project in twelve weeks—and felt terrible about himself! The boss—of course—harangued Kent about how slow he was throughout the second six weeks. Kent, somewhat despondent because he was such a "failure" as a programmer, finally realized that his original estimate of 6 weeks was extremely accurate—for 2 people—and that his "failure" was really the manager's failure , indeed, the failure of the standard "fixed" process mindset that so frequently plagues our industry.

This type of situation goes on every day—marketing, or management, or external customers, internal customers, and, yes, even developers—don't want to make hard trade-off decisions, so they impose irrational demands through the imposition of corporate power structures. This isn't merely a software development problem, it runs throughout Dilbertesque organizations.

In order to succeed in the new economy, to move aggressively into the era of e-business, e-commerce, and the web, companies have to rid themselves of their Dilbert manifestations of make-work and arcane policies. This freedom from the inanities of corporate life attracts proponents of Agile Methodologies, and scares the begeebers (you can't use the word 'shit' in a professional paper) out of traditionalists. Quite frankly, the Agile approaches scare corporate bureaucrats— at least those that are happy pushing process for process' sake versus trying to do the best for the "customer" and deliver something timely and tangible and "as promised"—because they run out of places to hide.

The Agile movement is not anti-methodology, in fact, many of us want to restore credibility to the word methodology. We want to restore a balance. We embrace modeling, but not in order to file some diagram in a dusty corporate repository. We embrace documentation, but not hundreds of pages of never-maintained and rarely-used tomes. We plan, but recognize the limits of planning in a turbulent environment. Those who would brand proponents of XP or SCRUM or any of the other Agile Methodologies as "hackers" are ignorant of both the methodologies and the original definition of the term hacker.

The meeting at Snowbird was incubated at an earlier get together of Extreme Programming proponents, and a few "outsiders," organized by Kent Beck at the Rogue River Lodge in Oregon in the spring of 2000. At the Rogue River meeting attendees voiced support for a variety of "Light" methodologies, but nothing formal

occurred. During 2000 a number of articles were written that referenced the category of "Light" or "Lightweight" processes. A number these articles referred to "Light methodologies, such as Extreme Programming, Adaptive Software Development, Crystal, and SCRUM". In conversations, no one really liked the moniker "Light", but it seemed to stick for the time being.

In September 2000, Bob Martin from Object Mentor in Chicago, started the next meeting ball rolling with an email; "I'd like to convene a small (two day) conference in the January to February 2001 timeframe here in Chicago. The purpose of this conference is to get all the lightweight method leaders in one room. All of you are invited; and I'd be interested to know who else I should approach." Bob set up a Wiki site and the discussions raged.

Early on, Alistair Cockburn weighed in with an epistle that identified the general disgruntlement with the word ‘Light’: "I don't mind the methodology being called light in weight, but I'm not sure I want to be referred to as a lightweight attending a lightweight methodologists meeting. It somehow sounds like a bunch of skinny, feebleminded lightweight people trying to remember what day it is."

The fiercest debate was over location! There was serious concern about Chicago in wintertime—cold and nothing fun to do; Snowbird, Utah—cold, but fun things to do, at least for those who ski on their heads like Martin Fowler tried on day one; and Anguilla in the Caribbean—warm and fun, but time consuming to get to. In the end, Snowbird and skiing won out; however, a few people—like Ron Jeffries—want a warmer place next time.

We hope that our work together as the Agile Alliance helps others in our profession to think about software development, methodologies, and organizations, in new– more agile – ways. If so, we’ve accomplished our goals.

140 Jim Highsmith, for the Agile Alliance

141

Information for participants

Inclusion in Canada's digital media industry

Name of researcher: Vanessa Ciccone
London School of Economics and Political Science (LSE)

Thank you for considering participating in this study which takes place from January, 2019 until August, 2019. This information sheet outlines the purpose of the study and provides a description of your involvement and rights as a participant, if you agree to take part.

What is the research about?

The study assesses inclusion within the workplace, and other industry settings, in the digital media sector in Canada. The purpose of this research is to better understand how employees are navigating their working lives and how they encounter inclusion in day-to-day professional settings in the industry. A main goal is to yield results that are useful for the industry involved, and to contribute to the literature on labour and inclusion in the digital media sector.

Do I have to take part?

It is up to you to decide whether or not to take part. You do not have to take part if you do not want to. If you do decide to take part I will ask you to sign a consent form which you can sign and return in advance of the interview or sign at the meeting.

What will my involvement be?

Participation will involve a face-to-face interview with myself, and will be no longer than an hour. Participants may skip any question in the interview, and may also stop the interview at any point and/or ask for their data to be destroyed. If at any point participants wish to go off the record, they must explicitly state this during the interview so that the researcher does not collect this data. The researcher will then ask the participant(s) if they are ready to go back on the record, and only at this point will data collection resume. Participants will be reminded of this before the interview begins.

How do I withdraw from the study?

You can withdraw at any point during the study, without having to give a reason. If any questions during the interview make you feel uncomfortable, you do not have to answer them and can withdraw from the interview. Withdrawing from the study will have no effect on you. If you withdraw from the study I will not retain the information you have given thus far, unless you are happy for me to do so.

What will my information be used for?

The collected information will help to inform my PhD research. Interview data will be transcribed, de-identified, and analysed.

Will my taking part and my data be kept confidential? Will it be anonymised?

The records from this study will be kept confidential. Your data will be pseudonymised and your name will not be used in any reports or publications resulting from the study. Information that could reveal your identity will be altered in data collection and write-ups. All digital files, transcripts and summaries will be given codes to protect the identities of participants. Only myself and my supervisors will have access to these de-identified files. Any hard copies of research materials will be kept in locked files at all times.

What if I have a question or complaint?

If you have any questions regarding this study please contact the researcher, Vanessa Ciccone at v.ciccone@lse.ac.uk.

If you have any concerns or complaints regarding the conduct of this research, please contact the LSE Research Governance Manager via research.ethics@lse.ac.uk.

To request a copy of the data held about you please contact: glpd.info.rights@lse.ac.uk

If you are happy to take part in this study, please sign the consent sheet attached.

CONSENT FORM

Inclusion in Canada's digital media industry

Name of researcher: Vanessa Ciccone

PARTICIPATION IN THIS RESEARCH STUDY IS VOLUNTARY.

I agree to taking part in the study	YES / NO
I understand that I am free to decline to participate in this research study, or I may withdraw my participation at any point without penalty. My decision whether or not to participate in this research study will have no negative impacts on me either personally or professionally.	YES / NO
I confirm that I have read and understood the information sheet provided for the above study. I have had the opportunity to consider the information and ask any questions I have.	YES / NO
I understand that my data will be anonymised and retained for use in publications, the researcher's PhD research, and future research.	YES / NO
I agree to the interview being audio recorded	YES / NO

Please retain a copy of this consent form.

Participant name:

Signature: _____ Date _____

Interviewer name: Vanessa Ciccone

Signature:_____ Date _____

For information please contact: Vanessa Ciccone at v.ciccone@lse.ac.uk

Interview Framework and Questions

How do the requirements of work in the industry affect how workers experience their professional lives? Also, in an industry that urges employees to be a certain way, are there costs to conforming i.e. to emulating the "ideal" subject; to being "optimized"?

1. What are you like at work v. outside of it?
    a. Do you feel it's important to be this way at work?
    b. Does it come easily to you?
    c. What are the most successful [*sales/development/consulting/product management/other*] professionals like?
2. Have you ever been asked to "be" a certain way at work e.g. in how you speak, dress, act?
    a. Who does work (or your company/industry) want you to be?
        i. How does that make you feel? *(Are there any emotions that come up with thinking about having to be this particular way at work? Or with the need to do so?)*
    b. Are you encouraged to be on social media?
        i. In a particular way?
        ii. How does that make you feel?
3. What does it mean to be productive?
    a. Do you feel pressure to be productive?
    b. What does this feel like?
    c. How important is it to *appear* productive?
    d. How does someone at your office appear productive?
    e. Is there any impact to re: being so productive?
4. Do you feel fulfilled at work?
    a. Do you want to feel fulfilled as a result of your work?

Work-life boundary: how employees are navigating it. Also, the benefits and costs of socializing with colleagues outside of work.

5. Do you regularly tell co-workers about your life outside of work?
6. What kind of information about yourself do you typically share with colleagues?
    a. Do you share freely, or carefully consider the things you share?
        i. Why? *For those who share openly, can they reflect on why?*
    b. Do you talk about your friends or family?
    c. Do you share hobbies?
        i. What are these hobbies? Where did you pick them up? Are these similar to the hobbies of others in your line of work? Do you pursue them together?
        ii. Are these ever useful at work e.g. with clients or for work events?
    d. Do you think it's important to have relationships with colleagues that extend beyond the workplace? Why or why not?
        i. Are there benefits to doing this? Please list.
        ii. Are there risks? Please list.

7. Do you attend social work events? Why or why not?
8. Do you set your work calendar to open or "private?" Why/why not?
    a. Do you place personal appointments in work calendar?
9. Do you feel like you can you be yourself at work?
10. Do you ever feel you need to be guarded at work? In what way?
    a. What feelings does this bring up, if any?
    b. [If yes] are you ever asked to be less guarded?

Vulnerability: How are employees characterizing vulnerability in the workplace. Do they want to see more of it or less; what does it convey? Who/what does it benefit?

11. Does vulnerability have a place in the workplace?
12. Is it important to be able to show vulnerability at work?
13. What do you think it means to be vulnerable at work?
14. What does it look like to be vulnerable in the workplace?
15. What does vulnerability in the workplace feel like?
16. If you're going through something personal (either a physical or mental health issue, or a family issue) do you feel comfortable to:
    a. Tell work (i.e. your manager) about it?
    b. Might you ask for help from work e.g. let a manager know that you're going through something and that you may need more flexibility?
17. Is it important to create spaces at work where people can be "vulnerable"?
18. **For those who use Agile:** is there currently space for vulnerability in the Agile process?

Among those who **work remotely**, what are the benefits/challenges?

19. How often do you work remotely?
    a. From where?
    b. What are the reasons?
20. What are the benefits to working remotely?
21. What are the costs?
22. What are the particular pressures you face with this work format?
23. As a result of working remotely, are relationships with senior management difficult to build, or to maintain?
24. Do you have social media accounts? If you did not work remotely, would you populate these in the same way/with the same frequency?

Side-hustle

25. Do you have or have aspirations to have a side-hustle?
    a. Why/why not?
26. Anything else to add about any of the above topics?

Coding Framework

NVivo Coding Framework	
Main Code	**Sub-Codes**
Capitals	
	Cultural capital
	Economic capital
	Emotional capital
	Hobbies
	Social capital
Career approaches	
	Approach to promotions
	Approach to salary increases
	Mentorship
	Self-advocacy
Common sense	
Communication style	
Conferences & events	
Corporate practices	
	Competition
	Delegation
	Org change
D&I initiatives	
	Zebra question
Discourse of merit	
Emotions	
	Anger
	Anxiety
	Control (feeling in or out of it)
	Emotional management
	Emotional understanding
	Emotions as data
	Feeling of insecurity
	Feeling of security
	Happiness
	Language impacting affect
Empathy	

Equities & inclusion	
	Being included
	Discourse about safety
Flexible work	
	Presence
	Remote work
HCI & Online Communication	
	Presence
	Posts
Humour	
Industry & org values	
	Disruption
	Do the right thing
	Fail fast
	Grit
	Innovation
	Humility
	Nerdy-as-cool
	Openness
	Passion
	Predictability
	Question everything
	Transparency
Inequities & exclusion	
	Ableism
	Antisemitism
	Being excluded
	Discourse as violence
	Homophobia
	Inequality
	Islamophobia
	Racism
	Sexism
	Sexual harassment
	Transphobia
Informality	
	Drinking & drugs
	Navigating social spaces

	Opaque criteria to advance
	Party culture
	Play
	Social anxieties
Labour types	
	Consulting
	Domestic labour
	Emotional labour
	Informal interviews
	Product manager
	Sales
	Software developer
Methodology	
	Interviews
Personal	
Policy	
Positive psychology	
	Framing
	Gratitude
	Negativity & pessimism
	Positivity & optimism
Presence bleed (work-play)	
Privacy	
	Do-not-disturb methods
	Interruptions
	Open concept spaces
	Surveillance
Productivity	
	100% in
	Athletic/sports language
	Constructing productivity
Self-improvement	
	Authenticity
	Confidence
	Fail-to-succeed
	Full selfhood
	Growth
	Leadership
	LoA

	Passion
	Resilience
	Self-care
	Therapeutic discourse
	Vulnerability
Self-reflexivity	
Spatial discourse	
Subjectivity	
	Class subjectivity
	Consistency & inconsistency
	Disability & subjectivity
	Ease & merit
	Gender & subjectivity
	Guarded
	Ideal neoliberal subject
	Leadership
	Race & subjectivity
	Ruptures in performance
	Strategic subjectivity
Team cultures	
	Developers
	Sales
Time	
	Daily schedule
Toronto	
Vancouver	
Work-life balance	

Endnotes

[i] Please note that a version of Chapter 5 has been published as an article in the *European Journal of Cultural Studies:* Ciccone, V. (2021). Technology of optimization: An emerging configuration of productivity among professional software employees. *European Journal of Cultural Studies 25*(1): 132-147. https://doi.org/10.1177/13675494211030281

[ii] Please note that a version of Chapter 6 has been published as an article in a special issue of the Journal of Computer-Mediated Communication. Ciccone V (2023) Transparency, openness and privacy among software professionals: Discourses and practices surrounding use of the digital calendar. *Journal of Computer-Mediated Communication, Special Issue: Technology and the Future of Work:* 1-10. https://doi.org/10.1093/jcmc/zmad015

[iii] As cited by Neubert (2015) as a forthcoming paper, written in German.

[iv] Note that the present chapter refers to agile as a "model" rather than a "methodology" in line with how it was constructed by Zebra.

[v] https://www.merriam-webster.com/medical/extensibility

[vi] https://www.merriam-webster.com/dictionary/integrable

[vii] https://www.merriam-webster.com/dictionary/interoperability

[viii] Humphrey (2000) founded the "Personal Software Process" or PSP, an organizational method for software that could be applied to both agile and structured models.

[ix] While the agile model includes processes such as, for example, SCRUM and eXtreme Programming (XP), the structured model includes processes such as waterfall, the Rational Unified Process (RUP), or spiral (Estler et al 2013). Moreover, whereas processes within structured model apply "rigorously defined practices, extensive documentation, and detailed planning and management," agile processes emphasize "effective informal communication among developers" and "iterative improvement of implementations" (Estler et al 2013, 1199). While the former has been said to offer a useful model for applications with requirements that are unlikely to be subject to major changes, the latter (i.e. agile) is understood to be useful for projects that tend to involve changing requirements (ibid). Additionally, agile processes often involve continuous communication with stakeholders including "users," customers, and business partners throughout all phases of development (Beck et al 2001). They also tend to favour face-to-face exchanges for communication (ibid). Relatedly, waterfall is a structured process (e.g. compared to SCRUM in agile), or a means of implementing the structured[ix] model within a software team. It involves tackling a project as a cohesive whole, including intensively planning upfront, followed by building the software, reviewing it, and then deploying it. In contrast, SCRUM is an agile process that breaks this process into pieces and cycles through development phases quickly. SCRUM typically involves one-to-three week intervals referred to as "sprints" during which these phases are cycled through, and incremental software releases take place. Rather than planning an entire development project, in SCRUM the team tackles it bit-by-bit, involving engagement with stakeholders throughout the process rather than at the beginning and end as seen in many structured approaches. Overall, agile offers a means to shift toward cost-efficiency, enabling developers to respond to increasingly demanding "needs" of users. In other words, the agile model offers business agility (Gurses & van Hoboken 2017).

[x] In Canada, Pierre Trudeau's Liberal leadership was succeeded by Progressive Conservative leader Brian Mulroney, who took power in 1984 and led until 1993.

[xi] To address this question, I took a broad approach to "inclusion" and to everyday discourse, with an aim to assess what the latter might reveal about how inclusion is negotiated among employees.

[xii] For more: http://www.ic.gc.ca/eic/site/061.nsf/eng/Home

[xiii] The software and broader technology industries have been glamourized in the cultural sphere, with multiple tech CEOs taking on celebrity status, and being heralded as entrepreneurial heroes (Little & Winch 2021; Streeter 2015).

[xiv] After this dissertation was submitted, but before its embargo lifted, I published an article in *Sociological Research Online* on vulnerability in the workplace, based on data collected as part of this doctoral research. The citation for this journal article is: Ciccone V (2023) Vulnerability at work: Instrumental vulnerabilities among software professionals. *Sociological Research Online:* 1-17. https://doi.org/10.1177/1360780423120694.

[xv] For a discussion of internet imaginaries and the discourse of openness, see Mansell (2012).

[xvi] Most often, sprints run on one to two week intervals.

[xvii] These job posts were found on multiple job-search websites including Indeed, ZipRecruiter, MNC Jobs Canada, and LinkedIn.

[xviii] See lines 94 and 107 in the History text of the Agile Manifesto.

[xix] The use of "needs" in quotations here is an acknowledgement that such so-called needs have been constructed through a lens of financialization on the part of software companies, which involve building certain dependencies into the software (Gurses & van Hoboken 2017).
[xx] The main Manifesto webpage is referred to as the "Manifesto for Agile Software Development" on the website and I consider it the central text of the Manifesto. At the same time, after reading multiple resources on the Manifesto I have concluded that the Principles are often included in references to the Manifesto itself. That is, such references often refer to the Manifesto as inclusive of both the Values and the Principles, even though the latter has its own webpage on the Manifesto website.
[xxi] Due to its length, the third text is included in the appendix (lines 41-141).
[xxii] Note also that the Manifesto text below varies in font size to reflect the variance in font size on the Agile Manifesto website.
[xxiii] See Text 1 in this document, and also within the Agile Manifesto webpage, to view the size difference in the font of the text.
[xxiv] Two additional references are made to Dilbert, a satirical comic strip published since 1989 about a white, male engineer (i.e. "Dilbert") working in a micromanaged office.
[xxv] No page number is provided in the citation, as the title of Streeter's (2015) text includes "romantic individualism," which is a concept referred to throughout his study.
[xxvi] Reminiscent of much popular psychology discourse (see Ehrenreich 2007).
[xxvii] This quote has been taken from Ames et al (2015) and is the authors' interpretation of the sublime, rather than being a quote from Mosco (2005).
[xxviii] For instance, on the main Agile Manifesto webpage that lists the four values, the full image appears three times.
[xxix] Oxford Languages is Google's English dictionary.
[xxx] It should be noted that computer science scholars are conducting critical studies of the societal impact of optimization systems in digital technology. One example is: https://arxiv.org/abs/1806.02711v3
[xxxi] Carnegie's book ranks #16 on Amazon's list of bestsellers.
[xxxii] Illouz (2007; 2008) has investigated this strategic subjectivity extensively.
[xxxiii] Although she expressed familiarity with Ali Wong's stand-up Netflix skit, which expresses a similar sentiment, Elizabeth noted that she was serious about viewing her pregnancy as an example of 'productivity.'
[xxxiv] Investigated by Eva Illouz (2007; 2008).
[xxxiv] Anne Helen Petersen (2019) suggests that crossing items off a list is a compulsion for millennial knowledge workers, which she characterizes as an aspect of 'self-optimization.' https://www.buzzfeednews.com/article/annehelenpetersen/millennials-burnout-generation-debt-work.
[xxxiv] Scholars such as Simon Williams (2005), Jenny Hislop and Sara Arber (2003) have indeed shown that in neoliberal societies it has become common for individuals to construct their own sleep patterns within a discursive frame of sleep as itself an accomplishment. See https://www.routledge.com/Sleep-and-Society-Sociological-Ventures-into-the-Unknown/Williams/p/book/9780415354196 and https://onlinelibrary.wiley.com/doi/full/10.1046/j.1467-9566.2003.00371.x#b19
[xxxiv] I draw from English Lueck (2010, 2017) to assert that there is considerable overlap between these categories for technology professionals, making it difficult to clearly distinguish what is and is not work or personal.
[xxxiv] It should be noted that work-life integration is a term that acknowledges the limits of so-called "work-life balance."
[xxxv] I draw from Tomlinson's (2007) conceptions of immediacy in media usage.
[xxxvi] Defined as Fear of Missing Out.
[xxxvii] Additionally, although the calendar conceptualizes of time as circumscribed (Mazmanian et al 2015), studies have shown that much time use – especially as it relates to use of technology – is "plastic," or unplanned time that wraps around that which is planned e.g. meetings or intensive work periods (Rattenbury et al 2008).
[xxxviii] Among other "productivity" mediums. See Leshed and Sengers (2011).
[xxxix] This point reflects upon the gender divide broadly, rather than being a finding from my empirical work.
[xl] After the dissertation defence and submission, but before the embargo on the thesis lifted, Chapter 5 was published as a journal article in the European Journal of Cultural Studies. See Endnote i for the full citation.

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