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THE WORKING LIVES AND SPATIAL PRACTICE OF DIGITAL MEDIA DEVELOPERS IN SAN FRANCISCO

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THE WORKING LIVES AND SPATIAL PRACTICE OF DIGITAL MEDIA
DEVELOPERS IN SAN FRANCISCO

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DISSERTATION

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A dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of Philosophy in the
Department of Geography
at the University of Kentucky

By
Daniel G. Cockayne

Lexington, Kentucky

Director: Dr. Matthew Zook, Professor of Geography

Lexington, Kentucky

2016

ABSTRACT OF DISSERTATION

THE WORKING LIVES AND SPATIAL PRACTICE OF DIGITAL MEDIA DEVELOPERS IN SAN FRANCISCO

In this dissertation I examine work practices in the 21st Century, looking in particular at how categories such as labor and value are changing in the context of technological shifts and the valorization of entrepreneurial work. I take the example of digital media workers in San Francisco to show how work is changing in relation to correlative changes in the capitalist mode of production and the devaluation of labor under neoliberal models of reason. This approach interrogates how attachments toward work are produced and reproduced to ask why work has become such a naturalized and unquestionable category in everyday life. Rather than demanding less or better work, entrepreneurs in San Francisco work more and harder, while providing a romanticized ideal of work for others. I ask if standards of precarious, insecure, flexible, and discriminatory work practices are transmitted beyond the confines of digital media work, and become a normative and hegemonic standard for workers in general.

By examining these working practices and ethics of software developers in San Francisco's digital media sector, I address recent calls in cultural economic and critical human geography to pay closer attention to the micro-spatiality of the workplace (rather than the more typical industry- or market-scale focus) and to consider issues of embodiment, emotions, affect, gendered performativity, and the production of sexuality at work. This dissertation attends to topics of inter-disciplinary appeal, including the production of software, precarious labor in a cultural industry, and the role of culture and emotions in the workplace. I view the workplace as a site not just for the production of economic forms of value, but also behaviors and attitudes toward work, working subjectivities, and structures of affect and desire.

I take up three main topics: (1) entrepreneurs' and other workers' personal attachment to their work, (2) users of social media platforms as unremunerated producers (or 'prosumers') of value, and (3) the use of the sharing trope to form a justification for flexible and contract work in the on-demand economy. I draw on eighteen months of fieldwork in San Francisco with workers for digital media firms, presenting data collected through interviews, participant observation, and discourse analysis.

Keywords: Digital Media, Economic Geography, Entrepreneurialism, Human Geography, San Francisco, Work

Daniel G. Cockayne

July 18th 2016

Date

THE WORKING LIVES AND SPATIAL PRACTICE OF DIGITAL MEDIA
DEVELOPERS IN SAN FRANCISCO

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It is perhaps impossible to give a full and accurate account of the wide confluence of influences at work in a doctoral dissertation. The list of references at the end of the work is a particularly academic attempt to give this account, while this acknowledgements section is another. Each has their failures. The former risks being taken as a perfunctory or disingenuous condescension to the bare minimum of acceptable academic practice, rather than an earnest act of bringing along with you those that you most want to remember. The latter in risking something perhaps worse, is too often written in a derivative genre of banal sentimentality. This kind of sentimentality may either be too tempting or simply too difficult to avoid here, so my apologies in advance to the reader. In many ways the differentiation between the supposedly 'intellectual' act of citation and act of acknowledgement detailed here is an arbitrary one, and one that speaks to the further gaps and failures inherent in the academic practice of citation itself, and the uneven politics reproduced alongside it that academics still seem to struggle to adequately articulate. The world of ideas so finely and scientifically documented in the list of references gives no account of the collaborative emotional work that a dissertation entails, and the levels of personal investment contributed by so many beyond those listed alphabetically there. The writing I present here is collaborative in the sense that, though the prose is my own, I would never have been able to write it alone.

So I would like to thank the many people who made this dissertation possible. I'm sure that I'll be unable to mention everyone, and apologies in advance to those that I have missed.

of the academy and Kenny Stancil helps me to remember the importance of both earnest scholarship and of relating one's intellectual ideas to questions of progressive politics. Curtis Pomilia pushes me to clarify the conceptual and theoretical contributions of my research, and I would like to thank him for continuing to remind me that I will never understand psychoanalysis. (When I shared this with Curtis he said, "I really do think you'll be great at it one day.") Finally, Ryan Cooper has shown me the utmost compassion, patience, and understanding when graduate school seemed most difficult. He helped me to be a better teacher, showed me the importance of thinking beyond the academy, and challenged me to think through the relevance of my research for others. Tangentially, Ryan has probably listened to me try to explain the major themes in *Difference and Repetition* while drunk more time than either of us will care to remember. And curiously, he was once the owner of both of my volumes of *Capitalism and Schizophrenia*, so, in a way, I owe everything I've learned about Deleuze and Guattari to him.

I would like to thank Matthew Zook for being an excellent advisor and continual source of support and encouragement. I don't think the dissertation could have gone on without his commitment to me and to this project. Continually Matt has shown that he wants to find an advising style that works best for me and has placed intellectual trust in my ideas and writing, which I'm sure can't always have been an easy task! Having Matt as an advisor has helped me not only to realize this project, but also helped me to think through how I would like to advise students in the future.

Various members of the Political Ecology Working Group introduced me to a vibrant and inspiring subdiscipline in geography and gave me the opportunity to learn how to organize sessions and conferences, how to collaborate and work with others, and how to take initiative when needed. They include Patrick Bigger, Lily Brislen, Ryan Cooper, Hugh Deaner, Eric Huntley, Jessa Loomis, Nate Millington, Marita Murphy, Matthew Rosenblum, Jairus Rossi, Lindsay Shade, Virginia Smith, Kenny Stancil, Sophia Strosberg, and Sarah Watson. Some of my best and proudest memories at Kentucky are associated with the Dimensions of Political Ecology conference, which I hope will

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Chapter One: Introduction

1.1. Why study work?

1.1.1. Introduction, or, inventing the future

The empirical material presented here is the result of sixteen months of research in San Francisco's digital media sector. I interviewed individuals working for 'startup' firms, that is, firms that produce websites, software, and digital applications for smart phones and tablets. I attended events and conferences with them, spoke with them about their work, and tried to understand why they do what they do. Startup success stories typically follow romanticized accounts of the genius inventing the future in their garage,[1] becoming rich and achieving celebrity with little more than a laptop and internet connection. These inventors altruistically and single-handedly identify and solve progressive problems for the rest of society, and conveniently in the process achieve the American dream, making it on their own through perseverance and hard work. These stories are at once individual and universalizing, reinforcing the belief that not only can we make it on our own and that we have a duty to attempt to do so, but also that this duty applies to everyone, irrespective of circumstance or pre-existing degrees of wealth, security, or status.

The fantasy of startup success is also an entrepreneurial fantasy, in which the individual invents not only the future but also their own satisfaction, the source of their own consumption. These narratives idolize the entrepreneur and entrepreneurialism as self-sacrificial forms of martyrdom and economic heroism, as the progenitor of national progress and social change, unconcerned for the cost or work involved, though always with a personal rewards in the final instance. The emphasis on entrepreneurialism as a 'normal' mode of work in recent years has been pronounced. For example, in 2015 the White House released a 'Strategy for American Innovation,' in which the authors lauded entrepreneurialism and innovation as central to the production of a healthy national

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[1] HP co-founders Bill Hewlett and David Packard are the archetype of this garage startup origin story, a tale sustained since by others including Google co-founders Larry Page and Sergey Brin. Facebook CEO Mark Zuckerberg has a connected college dorm-room equivalent adding an element of autodidacticism and rejection of 'traditional' education (often framed in terms of sanctimonious and maverick rebellion) shared in the story of Napster co-founder Sean Parker.

economy. In the executive summary of this report, the authors write,

> "For an advanced economy such as the United States, innovation is a wellspring of economic growth. While many countries can grow by adopting existing technologies and business practices, America must continually innovate because our workers and firms are often operating at the technological frontier,"

and in the introduction,

> "America has long been a nation of innovators. American scientists, engineers and entrepreneurs invented the microchip, created the internet, invented the smartphone, started the revolution in biotechnology, and sent astronauts to the Moon. And America is not done" (National Economic Council and Office of Science and Technology Policy, 2015, page 2; page 11).

The overall strategy of the report is to link innovation and entrepreneurialism to a nationalist image of American progress. The report notes the role of venture capital in the United States' "innovation ecosystem" yet also emphasizes that the government has a part to play in leading progress, thought in terms of "the entrepreneurial society." By invoking the notion of the "technological frontier," the report recapitulates a modernist narrative, folding nostalgia for America's historical and contemporaneous racist expansionism into a civilizing tale of societal progress.[2] The ironies of the report contrast the libertarian image of the lawless entrepreneur and frontiersman (that would be likely to reject the interventionist image of the nation state) with the state civilian and subject, albeit one defined more by economic rather than public participation. In this way the report attempts to rescue the figure of the immigrant, not through the image of multicultural tolerance or melting-pot rhetoric, but on the grounds of an economic form of citizenship. In this kaleidoscope of contradiction, economic valor, and national sentiment, the entrepreneur emerges as the heroic progenitor of neoliberal American sovereignty.

Yet, left out of the popular fantasies of the entrepreneurial tech developer and the

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[2] The particularly troubling notion of the technological (or more generally economic) frontier is similarly repeated in other contexts. For example, venture capitalists Victor Hwang and Greg Horowitt (2012, page 153) directly compare entrepreneurialism to "a lawless, frontier wilderness," in which "once of the trail, you never know when you might have to deter attacks by Native Americans, kill predators to keep your livestock safe, help pull wagons from the mud, or provide medical care to injured group members." Though not a theme I explore further in this project, the use of ecological metaphor is highly prevalent in American myth, technological fantasy, and entrepreneurial origin stories.

White House's report is the subject of startup failure, the employees they accrue as their firm grows, and the discriminatory characteristics that structure this work. Per quarter, over one thousand deals are made between startups and venture capital firms (PwC, 2015),[3] yet estimates also suggest that a proportion as high as ninety percent of startup firms fail.[4] The small startup firms with ambitious founders that pursue this working fantasy often connote emotionally demanding work, involving high pressure, stress, fatigue, and long working hours. Co-founders and early-stage workers in these firms, prior to their procurement of capital (assuming that an initial round of funding is ever secured), work primarily or nominally for equity rather than for wages (or for meager wages, or for reimbursement) and are forced to embrace endemic conditions of volatility, financial insecurity, and short-termism. In extreme cases, some entrepreneurs that I spoke with claimed to work sixteen hour days, six to seven days a week, especially while raising rounds of capital for their startup.

Though this is by no means the absolute norm for all startup workers, employees or contractors who work for these firms (that is, not the entrepreneurial co-founders, but those usually salaried employees who worked for them) also suggested that they worked long hours, often ten to twelve hour days, and were expected to be constantly on call when away from the office. Employees were asked to work more and take on additional responsibilities without a corresponding pay rise, or with a cut in pay in order to extend the length of time until a company's dwindling capital reserves ran out. In these circumstances, when it became clear that a startup was having monetary difficulties, and though the promise of financial reward that usually accompanies startup work had waned, employees were asked to work harder and longer for less. Many agreed to stay or be kept on, not because they needed the money, or feared that they would not find work

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[3] To put this figure in a bit more perspective, the amount of deals has remained relatively stable for the past fifteen years, though with some gradual growth, and a stark dip in 2008, following the sub-prime mortgage crisis. In contrast, the amount invested has increased rapidly in the past two years, nearly doubling from around US$30 billion in 2013 to US$60 billion in 2015. A little less than half the capital invested in the US comes from Silicon Valley firms, and over half is invested in software, biotechnology, and other hardware or technological products (PwC, 2016).

[4] It is not possible to draw direct comparisons between these two statistics. To say that ninety percent of startups fail does not necessarily imply *funded* startups. A great proportion of startups fail before receiving early or initial rounds of investment.

elsewhere (though some did report fears of this kind, especially in the circumstance of corporate layoffs and downsizing) but primarily because they identified and sympathized with their employer and co-workers. I was told again and again by workers that they felt passionate about the firm's mission, the vision of their employers, and the product or service the company offered.[5] Being kept on in spite of layoffs connoted a sense of pride at being highly valued, despite less pay and longer hours.

Worker sacrifice is generally not enough to save foundering companies, and many firms simply fade away, out of the public eye, and remain largely undiscussed, since few entrepreneurs or other workers want to speak for long about stressful and sleepless months working on an idea that did not pan out. Fewer want to communicate feelings of guilt associated with borrowing money from friends and family that they may be unable to repay, or what they might have lost through failure, beyond time and money, that is, often, inter-personal relationships and contact with friends and loved ones. In startup scenes across the United States, success is an overwhelming exception to the rule and rhetoric of innovation, but an exception unevenly represented in the dominant discourses produced through startup and entrepreneurial work.[6] The only entrepreneurial language to discuss failure was to valorize it, to 'fail fast,' in one dogma I heard often. Failure was a necessary stepping-stone to success, and entrepreneurs that don't fail at least once are either extraordinarily lucky, or are framed as deficient in some way, as not having passed some rite of entrepreneurial inauguration.

The troubling thing about these kinds of working norms and practices is not only that the negative effects of entrepreneurial work remain a conspicuous silence, falling outside of discourse into the realm of the unspeakable, but also that these working norms

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[5] This is not to say that employees were not interested in the potential financial rewards of startup work, but that these motivations may already have been mitigated or dampened upon downsizing. Startup work is so common in The Bay, that non-founder employees (especially non-technical and non-financial staff) may simply be looking for work.
[6] Estimates of startup survival set rates of failure at around ninety per cent (c.f., Marmer and Dogrultan, 2011; Patel, 2015). By contrast, The United States Small Business Association (2012) estimates that two-thirds of all (that is, not just equity-financed) businesses survive at least two years and around half survive at least five years. Though the rate of failure is significantly higher for startups, the point is not just that this proportion is higher, but that attention and popular rhetoric is *disproportionately* leveled at tales of success.

are not isolated economic practices. If self-destructive working practices were only internal effects felt within San Francisco's (or even the United States') startup scene(s), effects experienced mostly by relatively privileged and affluent people with savings and personal safety nets in place, these practices would be far less worthy of comment, attention, and analysis, or thoroughgoing research. Instead, and as I claim through the material I present here, the entrepreneurial attitude and its effects are felt far beyond San Francisco and other startup scenes in the US and abroad. This is clear not only in the working practices imposed upon those employed (rather than co-founders who are equity owners) for these businesses, but also in the digital forms of labor that accompany startup failure and success - for example, Amazon's Mechanical Turk workers, contracted drivers for firms like Uber and Lyft, content reviewers for social media sites like Facebook and search engines like Google, and users for social media sites, who many argue should be conceptualized as unpaid workers, since the content they contribute is legally owned by the platform, and key to social media firms' revenue strategies. The claim is not that contractors personally feel like or want to be entrepreneurs themselves (though some assuredly do), but that the set of *working practices* that are the prerequisites for their employment and remuneration, and therefore, the reproduction of their ability to labor and live in the first place, is characterized by the individualism, divisiveness, and competition that is also particular to entrepreneurial forms of work. Non-entrepreneurial work is increasingly organized around entrepreneurial models, and of course, without the consent of the contract worker.

In this research, and in the material presented here, I account for a number of these working practices particular to startup work and increasingly felt elsewhere, through the example of San Francisco's digital media sector. I examine stories of overwork and failure, and attempt to think through what's left out of the dominant narrative of digital media valorization and success. I do this in three main ways, reflecting the empirical content of chapters three, four, and five respectively. First I examine entrepreneurs and others that work for startup firms, and in particular their stories of startup failure to understand how their motivation for and personal attachments to work persisted in the face of certain or probable failure. Second, I think through the role of users in the revenue strategies of social media firms to examine the forms of

engagement and attention-capture that entrepreneurs and others building social media products attempt to inspire in their users. Finally, I take the example of contracted workers in the so-called 'sharing' economy - or as I prefer, the on-demand economy - to think through how this labor is devalued and how this devaluation is narrated and in part justified through the sharing trope.

One of the central conceptual approaches that has guided this research relates to perspectives in feminist and cultural economic geography, to understand sites of work in their myriad forms not just in Marxist terms of surplus value and economic production (but also not to ignore or deny this perspective) but also as a site for the production of behavior, attitudes, and emotions toward that work. This perspective links the three empirical examples I present in chapters three, four, and five, as each is associated with understanding what is excessive in the scene of production, albeit in different ways. Thus I seek to identify, examine, and critique that which exceeds the economic (while also perhaps contributing to it) in the scene of production. In this framing, production is always *social* as well as economic; production is the production of the social. So, throughout my research I ask, what else is produced in the workplace? Why do entrepreneurs work in this way? How are particular attitudes toward work communicated? Do these attitudes also impose insecure working practices upon employees and other workers? Is it possible that detrimental, discriminatory, or toxic work practices function through transmission, and get passed on to other workers in distinct spatiotemporal contexts? And in particular, are these entrepreneurial working practices transmitted to work in the broader economy, that is, in perhaps non-entrepreneurial economic settings? In asking these questions I borrow from writers in geography like Doreen Massey (2013), who asks us to challenge the hegemonic 'common sense' of economic language, and from beyond geography with Kathi Weeks (2011), who asks, why do we not demand better and less work, rather than appear to instead consistently demand more work and harder work?

The theoretical thread that underpins this research relates closely to the changing questions of labor, work, and value in the 21st Century, specifically in the context of the rise of digital media and the far greater access to the internet following the widespread availability of commercial web browsers in the early 1990s. Though digital and online

systems have undoubtedly had a considerable impact on the way we work, digital forms of work also intersect with transitions in the capitalist system narrated in various ways in popular and academic accounts. These include monikers like late capitalism, neoliberalism, post-Fordism, cognitive capitalism, creative capitalism, and so on, as well as the broader recognition from feminist writers among others that Karl Marx too narrowly conceptualized work under industrial forms of capitalism as only remunerated work. I narrate my own and others' analysis of these transitions and conceptual adjustments in the context of this research in more detail in the next section, where I think through the changing context of production, amidst the continuing need to extract relative (and sometimes absolute) surplus value from workers. While I posit surplus value as a key and enduring component of different forms of capitalist production and their analysis, I also posit the more general production of the social as *radically excessive of the procurement of economic value*. By this I mean, the economic system of production, that "hidden abode" in Marx's terms, is not just a system of accumulation, but also a system that produces subjectivities; working dispositions, behaviors, and ethics; gendered forms of performativity; meaning and signification; the language to narrate and justify (as well as resist) working norms and ideals; attachments to particular working practices; and affective attitudes toward that work. Hence, the consistent argument I make throughout this project is that a thoroughgoing theorization of the economic must necessarily attempt to also locate these other productions that I list above - that I will variously call desire, value's surplus, and entrepreneurial affect - directly in the infrastructure of economic production itself.

From this theoretical groundwork, and in a key claim I make in chapter three, I argue that work in San Francisco is productive not just of digital websites and applications (the formal product or 'end point' of work) but also entrepreneurialism itself. And more broadly, it is these excesses of production that I attempt to theorize in the material I present here, to look beyond (but not without) production as a system of accumulation, and ask, "what else is produced in the workplace?" This has necessarily meant engaging with political economy - and this project is in no way a rejection of mainstream or any other kind of economics - but what I present here is more an attempt to think of the economy holistically as a simultaneously social and cultural system (see

section 1.3., page 33, on the cultural turn in economic geography). I have therefore sought a broad approach to social theory, thinking more through connections and points of intersections than divides and disciplinary boundaries. The rest of this chapter introduces the three main intellectual traditions that I most closely engage with - social theory (broadly conceived), the cultural economic tradition in economic geography, and critical studies of technology in geography.

Based on the theoretical tenets I have outlined here (and that I will outline in more detail later in this chapter and in others) the point of juxtaposing the discursive, that is, the popular and romanticized narratives about startup success, and the empirical contents of startup work as I did at the beginning of this section - the dream versus the reality - is not to suggest that the latter is a preferable conceptualization over the former. Instead, and one of the major intellectual points that I make throughout this research, is that the empirical reality of work is inevitably structured and underwritten by its fantastic contents (Žižek, 1989). In this sense, and as I attempt to outline in the following sections, a coherent exposition of economic phenomena must necessarily pay attention to how the workplace is also a cultural space, to conceptualize the ideas of culture and economy as mutually constituted. I examine other explanations of the cultural contents of economic practice to outline how accounts of this relationship, situate one term as theoretically deficient with relation to the other. In these accounts it is common for ideas of either 'culture' or 'economy' to take a position of primacy with relation to the other. By outlining these accounts, I suggest instead an approach that theorizes ideas of culture and economy as a co-production, in which neither has priority over the other, to locate ideas about these conceptual categories as themselves the result of production in general.

1.1.2. Organization of the chapters
In the rest of this introduction I cover three main themes. First I examine some of the conceptual underpinnings of this dissertation, outlining my conceptual framework for thinking through the economy and contemporary work through the writing of the philosophers Karl Marx, Max Weber, Michel Foucault, and Gilles Deleuze and Félix Guattari, as well as through the writing of the sociologist Arlie Hochschild, a critique of various writing of the Italian 'autonomist' school of Marxist thought, and feminist affect

theorists. I examine attempts to account for the economy as a more-than-economic system, and account for the connections and differences between these writers. My primary concern here is the concept of surplus value. I suggest that surplus value's conceptual mobility reaches far beyond Marx's own intentions, and retains an ethical and political purchase helpful for anybody examining contemporary labor practices, including those that are not necessarily organized around the wage technology. Second, I examine writing in geography that contributes to the project and empirical material presented here, most notably cultural and feminist perspectives in economic geography. Finally I detail some of the writing in geography on technology and digital media, and, though I broadly see this dissertation contributing to that tradition, I also suggest that there are reasons to be wary of and ambivalent towards projects that situate technology as the object of study.

The five remaining chapters are organized as follows. The next chapter outlines the methods used to undertake this study. This chapter most directly outlines precisely what I did and some of the methodological challenges I faced. It will also serve as another kind of introduction, and will be of direct interest to any reader less familiar with or interested in the conceptual formulations in chapter one. I discuss the problem of defining a definitive object of study (the so-called 'startup firm') and then introduce the field site, recruiting techniques, and the three main methods employed - interviews, participant observation, and discourse analysis - before concluding the chapter with a discussion of how I analyzed the data collected. The three chapters that follow, chapters three, four, and five, form the main content of the dissertation, in which I present some of the empirical results of this research, and some of the theoretical conclusions I've drawn. Each of these three chapters dwell on a particular component of digital work, with San Francisco's digital media sector at their focal point. Finally, chapter six provides concluding comments and offers some preliminary observations on the potential future research emerging from the analysis presented here.

Chapter three concerns digital media firms themselves, and the working ethics that are communicated, perpetuated, and (re)produced in and through startup work. Here I suggest that rather than, or in addition to digital applications the primary product of work in this sector is a particularly normative model of entrepreneurialism, one that is oriented around the romanticization of precarious work by those who are not subject to

the risks inherent in the contemporary moment's biopolitical regime of precarity. Here work is oriented around not only the wage technology, since entrepreneurs, co-founders, and other early employees at digital media firms typically take equity rather than a wage and remain un- or under-paid, while living on personal savings. Thus the extraction of surplus value in this context is a function of equity and the remote promise that the work might pay off, even in the high likelihood of failure. I develop these points through contemporary theorizations of the concept of precarity with writers that include Lauren Berlant, Judith Butler, and Isabell Lorey. This chapter originally appeared in *Environment and Planning D: Society and Space* 24 (3) as "Entrepreneurial affect: attachment to work practice in San Francisco's digital media sector."

Chapter four draws on interviews with co-founders of social media firms to examine the digital labor - sometimes called 'prosumption' - of social media users. Here I examine academic work that has attempted to fit social media use within Marx's labor theory of value (most notably by the sociologist Christian Fuchs, though others have made this argument too) and its variants to frame social media users as laborers, unpaid for their time, who produce content for these media in the form of data that has economic exchange-value. Through the example of social media firms in San Francisco I identify some problematic gaps in these arguments, most notably that studies of prosumption only take as examples dominant and successful social media firms like Facebook, thereby ignoring the vast majority of social media firms that are not (or not yet) producing revenue. They thus misrepresent the broader context of social media's political economy that *depends upon* these circumstances of failure. That many social media firms do not (yet) have revenue indicates, at least from Marx's perspective, that data collected do not have value, since value for Marx (1973) must be realized to be considered value. In this context again, the wage technology is not present in the extraction of user surplus value, which is instead solicited, I argue, through the production of the user's affective attachment to a particular social media platform. In this sense, I locate affect directly in the infrastructure of economic production in the context of social media. This chapter has been accepted for publication in *Big Data & Society* and will appear as "Affect and value in critical examinations of the production and 'prosumption' of big data."

Chapter five examines the sharing trope in on-demand firms (sometimes referred

to as the 'sharing economy') such as Uber, Lyft, and Taskrabbit. In an argument that builds in particular on the material presented in chapter three, here I offer an explicit example of how digital media workers attempt to justify and normalize precarious working conditions for others (whether intentionally or not), and make them a general condition for 'acceptable' working practice. Here the extraction of surplus value is largely directed by the wage technology, yet the relationship between absolute and relative surplus value is confounded, since the concept of 'the working day' does not retain consistency in the case of contract work. Taken together, these three chapters demonstrate some of the various mechanisms for the extraction of surplus value in digital media work and its associated forms of labor, not all of which are directed by the wage technology. By framing the sharing discourse as a normative attachment to an ideal of democracy, inclusion, and belonging through economic and laboring practices imagined as forms of participation, I examine the on-demand economy with Lauren Berlant's extensive writing on and critique of sentimentality in American culture. This chapter is in review with *Geoforum* and will appear there pending revisions as "Sharing, sentimental affect, and neoliberal discourse: the economic function of sharing in the digital on-demand economy."

Finally, in the conclusion I summarize, reflect on, and synthesize some of the major findings of this research, and offer some reflections on future research. I offer a framework for thinking through speculation as a financial technology, suggesting a perspective borrowed from anti-social feminist and queer affect theory as an ameliorative to the attempts to align financialization and technological tropes alongside one another in a linear organization of time as singular and oriented only toward totalizing and exclusionary progress and development narratives. Queer theory, with an archival and melancholic retrospective historiography invites us to imagine alternative temporalities, against the supposed inevitability of biopolitical modernity and its management of only-precarious forms of life-making and death-letting. Against the utopian perspectives offered in much contemporary social theory, I suggest the value of a perspective characterized by queer ambivalence, asking for a model of thought in which our personal attachments to societal fantasies that seem so committed to our abandonment and attrition might be less enthusiastic and optimistic. Thus in contrast to the popular fantasy of the

entrepreneur "inventing the future," presented in this opening chapter, I suggest in the conclusion a queer, unpopular conceptual ameliorative to this invention, to instead, "destroy the future."

1.2. Value's surplus

1.2.1. Introduction

In this section I provide a discussion of Karl Marx's (1976) concept of surplus value. I argue that though labor and value have changed, and though we view Marx's categories differently now in the light of decades of, in particular feminist critique, the concept of surplus value holds particular intellectual purchase. I attempt a generalization and partial transformation of the concept, showing how the desire to procure relative surplus value - that is, to get people to work, to be productive, and in particular ways - is a mobile technology of power not particular to the wage function.[7] Activity might be organized around the goal of extracting surplus value without the necessity of payment or even the alignment of a system for the realization of value. Surplus value may not be objectified in physical commodities, but in the dispositions, behaviors, and attitudes of workers themselves, whose ability to sell a particularly 'authentic' enthusiasm for work becomes the alienated 'commodity,' immanent to their own bodily performances. Instead therefore, we might read the history of changing categories of labor and value as one of experimentation, in which capitalists and others repeatedly attempt to discover new methods to inveigle a greater proportion of relative surplus from the worker through means that extend far beyond industrial production and its 'reward' for the worker in the form of remuneration therein, implying instead a more general production of the social.

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[7] It might be argued that surplus value only makes sense in the context of the wage technology. I realize that my framing as surplus value as precisely *not* particular to the wage technology could be construed as idiosyncratic or controversial, and might risk losing the consistency and importance of the concept altogether. How could surplus value make sense if it does not account for the difference between remunerated time and the total time worked that Marx calls exploitation? Insofar as the drive for relative surplus value aims to increase *productivity* without an increase in remuneration, I demonstrate in this section that relative surplus value hides behind and defines the desire to incite productivity in any context, remunerated or otherwise.

1.2.2. Surplus value

Marx's (1976) creation and exposition of the concept of surplus value has retained broad intellectual purchase and significance since the publication of the first volume of *Capital*. Perhaps the most important reason for this is that contained within the concept there is an immediately accessible political position: since the worker is paid less than the value of their labor time by the capitalist (and since capitalist production functions on this foundational inequality) the worker can be said to be exploited by the capitalist. Essential to Marx's concept therefore, there remains a clear normative function, which is immensely useful for the construction of a labor politics and ethics. In this normative injunction, labor theorists and others can examine how the relations of power that operate between capital and labor are maintained or resisted through the extraction of surplus value, the alienation of the worker from their product, and the absence of the workers' control over the means of production.

When thinking through Marx's continuing relevance in the contemporary intellectual moment it is important to remember the changing circumstances of the worker and of capitalist production, and the rich history of appraisal and critique that has come since. Indeed, as Giyatri Spivak (1985) has suggested, it is wholly possible that the labor theory of value is only strictly applicable to the industrial forms of production that Marx examined. We may have to invent new theories of value for the forms of production that have followed since large-scale industry. Spivak is not suggesting that we forget or ignore Marx, or the labor theory of value. Inventing new theories of value for other forms of production may well necessitate reference to Marx's own writing. Instead, Spivak argues that Marx's ideas should not be unnecessarily universalized. As others like Silvia Federici (2004) have noted, an important aspect of this history of capitalism that Marx largely ignored is how labor is devalued to the extent that it can be rendered apparently valueless or unpayable altogether, thereby pushing the extraction of surplus value to its logical limit. In her genealogy of insubordination toward work and the production of (usually women's) insubordinate bodies as killable, Fedeici, drawing on examples of heretics and witches, outlines capitalism's long alliance with patriarchy to emphasize the production of gendered bodies and subjectivities and to undermine the idea

that class is the sole or primary mechanism through which exploitation persists.[8]

Federici thereby undermines the conviction that the wage-technology is the main mechanism for exploitation and surplus value extraction under capitalist production. Given that work is often unremunerated, domestic work in the home being the most obvious example, the injunction to work (without the particular persuasion of the wage-technology) can take a number of far more subtle and pervasive forms. These forms orient systems of agreement and acquiescence that make work seem acceptable and banal. When successful the injunction to work is made into a duty, ethic, or aesthetic, into something that is apparently in the interests of workers themselves and something to which the productive body is willing to commit and submit. This aligns the willingness to work with a set of existential rewards (or the fear of moral punishments), quite distinct from, though often also functioning alongside the wage-technology.

1.2.3. The spirit of capitalism

In this light, the persistence of exploitation, that is, the persistence of the extraction of surplus value as an economic relation, has had a number of explanations. Max Weber (2011) for example sought to outline the 'spirit' of capitalism, rather than its historical materialist origins. Weber's problematic differed from Marx's in that the former was concerned with the apparently self-conscious centrality of work in the lives of both worker and capitalist in the late 19th Century. This willingness to work, to see work as a moral duty, mandate, or calling, could not be attributed to capitalism itself, Weber argued, since waged labor had (as Federici notes too) been historically met with considerable resistance and insubordination, despite a number of tactics on the part of the capitalist to get the worker to sell more of their labor time for less. Whether we agree with Weber's explanation of the religious beginnings of the modern spirit of capitalism in the Reformation and Lutheran and Calvinist doctrine,[9] the questions and problems Weber outline remain astonishingly salient and prescient today. For example, Weber (2011, page

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[8] This insight that class and gender are inter-related systems of difference is of course not particular to Federici (e.g., Gibson-Graham, 1996; Irigaray, 1985; McDowell, 2006; Mohanty, 2003; Rubin, 1975; Sedgwick 1985, among a great many others).
[9] It's worth noting that Weber does not posit Protestantism as the only cause of capitalism's ethic, nor does he suggest that religion remains its singular motor.

98) asks, "what set of ideas gave birth to the ordering of activity oriented purely to profit under the category of a 'calling,' to which people felt an obligation?" With this question we see the recognition that in addition to a set of material conditions, capitalism, or perhaps, less dogmatically, work, can be thought as a set of ideas, as a cultural and social system, which neither ignores, but nor is reducible to the economic.

With and beyond Weber we can view capitalism as a site for the appropriation, production, circulation, and realization of capital, but also as a system in which classed exploitation is interwoven with the production of gendered subjectivities; and as the correlate of a set of ideas, attitudes, behaviors, and norms; as cultural, and social, as well as economic, we begin to get a better sense of the endurance of surplus value as a concept, with or without the continuing fidelity of a labor theory of value. Surplus value might be extracted not only with the aid of the wage function, which at it's most basic locates need as an explanation for the sale of labor-power.[10] Need - an explanation structured around the concept of absence[11] - fails to take into account the complexity of our working lives and selves, those who work but have little or no need, or, more importantly (and far more commonly), those who work without selling their labor power. Of course, for many, the wage remains a considerable motivation to work, and there may be little or no choice other than the one to work in order to reproduce one's own laboring self. Yet this does not alter the fact that in addition to this need, to work and be waged is not just functional and has retained a moral and normative content for several centuries (Federici, 2004; Weeks, 2011). Thus capitalism and the extraction of surplus value can be thought in terms of ideas and mandates, as a social and cultural form, as a system for the production of attitudes and behaviors, for the cultivation or curtailment of subjectivities, and as reinforcing notions of one's 'correct' place in society.

Just as the material circumstances of work change (as I indicated by reference to

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[10] This is not to deny that a significant proportion of people do need the wage for which they sell their labor power. This fact alone however does not explain the relative absence of resistance to (or even discussion of) waged work in the modern era in contrast to others, or further, the eagerness and willingness to be subjected to it (Weeks, 2011). Waged work has overwhelmingly become a naturalized economic technology.
[11] Gilles Deleuze and Félix Guattari (1983) critique the concept of lack and the apparent hegemony of its explanatory power in political economy and psychoanalysis, systems of thought that they see as intimately interwoven rather than distinct.

Spivak's comments earlier in this section), so too must an explanation of the 'spirit' of capitalism, that is, the set of ideas, social and cultural values, and narratives that accompany necessary adjustments to the labor theory of value at any given historical moment, and form its essential correlate. Thus, as labor and value change over time, space, and circumstance, so too do the forms of subjectivity productive of them and produced by them, and the modes of explanation needed to describe personal and societal attachment to these economic systems. With the rise of white collar work and managerialism in the late 19th Century, and service sector work and the increased emphasis on entrepreneurialism since the mid 20th Century (Harvey, 1989), with television audiences, digital work in its myriad forms, and forms of supposed 'creative' work, both the empirical contents and the concepts we invent to examine labor and value have changed, and continue to change. Characteristics that Marx used to define the commodity - for example, exchange-value and its realization - are foundationally different when the 'commodity' remains inseparable from the body of the worker (like in the context of a musical performance), than in the exchange of more traditional commodities, such as products physically distinct from the body of the worker themselves (e.g., a coat, or a yard of linen). Value in the cases of celebrity, fame, and status seem linked to individuals while the value of fashion or luxury items seem divorced from their circumstances of production (at least in terms of Marx's relationship between socially necessary labor time and value) and the amount of labor-time invested in them, to the extent that their explanation exceeds even the Marxist difference between value and price. As the materialist and empirical characteristics of work change, so too do the narratives we use to explain a continuing commitment to work and to a certain spirit of capitalism, in Weber's words. And moreover, it remains difficult to ascribe to one or the other, the material and the ideal, the economic and the cultural, causal or original status. This points both to the mutual dependence of these two aspects of the production of the social, and the failure of their being set up in binary terms in the first place.

1.2.4. Production beyond accumulation

Though the problem for Marx, at least in his first volume of *Capital*, was to identify the foundational logic underpinning capitalist production in the mid-19th Century, the focus

today, in the context of a distinct intellectual tradition and socio-political landscape, might be a little different. Michel Foucault (1977, see pages 142, 163, 169, 175) was interested in work insofar as industrial forms of production demand a particular kind of discipline, a regimen and structuration of behavior, deployed in a particularly demarcated spatiotempoality, or "permanent grid" (page 145) of activity.[12] Foucault is less interested in establishing the set of laws underpinning the activity of production, and more concerned with how production imposes upon the body certain sets of norms and expectations, in seeing how work puts the body to work and in seeing how a kind of knowledge or science is formed around these disciplinary practices (see also Foucault, 1970), that is, in seeing how production not only produces forms of value in a system of accumulation, but also produces the productive body itself. In the post-structuralist tradition, therefore, we might ask less, "how does capitalism work?," in favor of asking instead, "what does it do?," or, "what does it function with?"

In comparing Weber with Foucault, the latter is more interested in the effects a general system of discipline on the body and 'soul' of the worker (rather than a spirit confined only to capitalist production) that Foucault examines in various contexts, industrial production being only one. The soul for Foucault is a way to describe something constructed and imposed upon the body, a set of generative constraints that may be at once productive and punitive.[13] We might see Foucault's soul as loosely

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[12] Foucault cites Marx frequently in *Discipline and Punish*, finding much of use in the first volume of *Capital*. In the introduction to *The History of Sexuality* however, Foucault (1978) criticizes Marxism and political economy alongside psychoanalysis for assigning sexuality an only repressive function, and, implicitly a secondary function in light of supposedly more serious or important concerns. Foucault's gloss on political economic explanations of sexuality is that the nuclear family was organized as a mere supplement to the sphere of production. In light of this critique, Foucault suggests replacing political economy for political anatomy, that is, an analysis of the incitement of sexuality and the discussions of sex since the mid-18th Century, but also a focus of the production of the body in the disciplinary system.

[13] Foucault (1977, page 125) writes, "Work on the prisoner's soul must be carried out as often as possible. The prison, though an administrative apparatus, will at the same time a machine for altering minds." And earlier (page 30, emphasis mine), "it is not that a real man, the object of knowledge, philosophical reflection or technical intervention, has been substituted for the soul, the illusion of the theologians. The man *described for us*, whom we are invited to free, is already in himself *the effect of a subjection* much more profound then himself. A 'soul' inhabits him and brings him into existence, which is itself a factor

analogous in some ways to Weber's spirit,[14] yet in contrast to the ethic, the soul for Foucault is a generalized and individualized construction, and not particular to capitalist production.[15] The soul is the effect upon the body of a system of discipline, and discipline is a function of a distribution of power recognizable in a variety of social contexts and settings, including the school, monastery, workhouse, factory, army, and prison.

Yet in the transition from one of the above questions (and the different treatments of history they imply) to the other, I suggest that the normative content of the concept of surplus value retains ethical and political purchase. Foucault writes (1977, page 154) that discipline, "arranges a positive economy; it poses the principle of a theoretically ever-growing use of time: exhaustion rather than use; it is a question of extracting, from time, ever more available moments and, from each moment, ever more useful forces." Foucault's description here, I think, could easily be mistaken for a description of Marx's concept of relative surplus value. Compare to Marx (1976, page 534) when he describes relative surplus value as "a heightened tension of labour-power, and a closer filling-up of the pores of the working day."[16] We see here that one commonality between Marx and Foucault is that both were interested in the question of the techniques imposed upon the

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in the mastery that power exercises over the body. The soul is the effect an instrument of a political anatomy; the soul is the prison of the body." The notion that 'man' (as itself a construction of discourse, a humanist ideal) is *a historical effect* (that is, the *result* of knowledge production and the serious disciplinary sciences, rather than the neutral observance of a naturally occurring being) is a particularly important characteristic of the anti-humanist, post-structuralist tradition.

[14] E.g., "the rigours of the industrial period long retained a religious air; in the seventeenth century, the regulations of the great manufactories laid down the exercises that would divide up the working day" (Foucault, 1977, page 149).

[15] It's worth noting that Foucault doesn't use the term soul very often, and doesn't seem particularly committed to it as a technical term or concept. At times it seems to form a loose synonym with 'mind,' and Foucault will sometimes use soul to establish a critique of a theological tradition. Discipline involves an internalization of routine and behavior, it is a bodily effect, and works upon and at the level of the body in a "political anatomy of detail" (Foucault, 1977, page 139). Discipline's effect is individual, and *the atomized individual is precisely its effect*, but its scope is broader, involving the deployment of a particular spatial structure and apparatus of knowledge.

[16] Importantly, Marx (1976, page 1038, emphasis original) also identifies surplus value as the "*authentic product* of capitalist production," which I take to mean, one of capitalism's central and defining characteristics. It would be interesting therefore, to re-read Foucault as a philosopher of the techniques for the extraction of relative surplus value.

worker to encourage them to work more and harder, and for less cost (either for the capitalist or the prison manager), though, of course, their explanations of the reasons for that imposition (and their respective interest in it) differ. Since for Foucault, discipline is a far more general technology than Marx's description of the "heightened tension of labor-power" we might suggest that the extraction of surplus value - the incitement to work, and to work, ideally, without a wage - takes on this general function too, one that is at once punitive and pedagogical (and, of course, in different degrees depending on the context - prison or school, etc.). For all the differences between Marxist and post-structualist approaches then, some exaggerated, and others imagined altogether, questions of inequality, disenfranchisement, and exclusion retain priority and consistency.

Thus, we might view surplus value retrospectively as a problematic field around which a generalized production of the social (Deleuze and Guattari, 1983) - this incitement to work on the social, whether waged or not - comes to be organized, one that Marx specifically and somewhat narrowly calls capitalist production, but one that is by no means particular to that production. In this framing, remuneration becomes the exception rather than the rule in the production of the social. As Deleuze and Guattari (1983, page 11) note, "what is specifically capitalist here is the role of money." The problem for the capitalist (at least in the spheres of production and social reproduction, if not also appropriation, circulation and realization) relates primarily to the question of how better to extract value, and in particular, relative surplus value, from the worker. Though the wage-function in the context of industrial production continues to be an important means to achieve this goal, the methods used to encourage the worker (broadly conceived) to produce a surplus have both diversified and multiplied, especially in spheres of social production that are not specifically or not only capitalist. Indeed, in looking at Weber's concept of spirit, and Foucault's concept of discipline, we can shift analysis from the foundational mechanisms and laws of capitalist production to think through the effects they have on subjects, how they might produce subjects, and how capitalism is oriented around an ideal and aesthetic as much as the injunction of accumulation's perpetual motor, and in additional to the model of need communicated through the wage technology. Quite aside from these conceptual developments since Marx, that we might read (through a Marxist lens at least) as an examination of the logic

of relative surplus value, is the changing contents of labor and value themselves, that we must contend with as ideals and aesthetics, in addition to sets of material circumstances. As the empirical contexts of economic production change, so must we adjust and amend the concepts that we deploy to describe and define them.

1.2.5. Unalienated work?

In the context of service sector work for example, I view Arlie Hochschild's (1983) concept of emotional labor as essential to an understanding of the changing concepts of labor and value, and therefore the transformation in the function and application of relative surplus value, and the empirical characteristics of its extraction. In *The Managed Heart*, Hochschild adapts aspects of Marx's analysis to think through service sector work, using the example of Delta flight attendants. Hochschild's analysis stems from the observation that more and more work is connected directly to the capacities of the body of the worker and their emotional disposition, in which their behavior and attitude is, if not more important, at least differently important than in the case of industrial forms of production. Though they do not own their means of production, flight attendants and other service sector workers do not produce a commodity to be sold that is discrete from their laboring selves, and therefore it might appear that they are not strictly alienated from the products of their labor, or not, at least, as Marx would have it.

Yet, Hochschild does not see optimism in this point, and rather than suggest that service sector workers are structurally better off than industrial workers (though nor does she deny this possibility), she instead develops and complicates Marx's concept of alienation. She suggests that just as workers of industrial production are alienated from the products of their labor, then analogously, so might we conceptualize the service sector worker as alienated from their feelings and emotional capacities through the laboring process.[17] For these workers, the construction of 'authentic feeling'[18] (different

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[17] Hochschild comments in particular on how her interview subjects spoke about their smiles. She writes, they "often spoke of their smiles as being *on* them but not *of* them. They were seen as an extension of the make-up, the uniform, the recorded music, the soothing pastel colors of the airplane décor, and the daytime drinks, which taken together orchestrate the mood of the passengers. The final commodity is not a certain number of smiles to be counted like rolls of wallpaper. For the flight attendant, the smiles are a *part*

from the inauthentic performance of synthetic feeling); of modes of being; of behaviors; systems of intimacy, proximity, and closeness; 'appropriate' gendered performances; and enthusiasm for work itself was precisely the product or commodity to be sold. In this sense, the kind of discipline requisite of industrial production in the workhouse or the factory is not an additional concern for the capitalist in the context of service sector work, instead it becomes the primary concern - discipline is the work itself, and the successfully oriented or attuned subject is the prioritized product of that work. Here we can see a constitutive shift. Previously subjectivity had to be managed in order to produce a particular product, involving the confinement of the body and the extraction of relative surplus value. In service sector work on the other hand, the confined or docile body is itself the desired outcome of work (rather than the commodity to be exchanged so that value might be realized), and therefore discipline, spirit, or the management and production of the soul, takes on a different significance and importance for the capitalist.

Asking similar questions to Hochschild, though reaching altogether different conclusions, researchers in other contexts, in particular from the Italian autonomist school of Marxists (e.g., Michael Hardt, Maurizio Lazzarato, Christian Marazzi, Antonio Negri, Paulo Virno, among many others), have also examined the changing status of labor and value through Marx's (1973) own reference to the 'general intellect' in his

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of her work, a part that requires her to coordinate self and feeling so that the work seems to be effortless" (Hochschild, 1983, page 8, emphasis original).

[18] I use the concept of 'authentic feeling' somewhat facetiously. I am not arguing that there is truly an original authenticity to feeling that subjects are somehow able to unproblematically access. This would be to reinforce a form of naïve humanism so effectively critiqued by Foucault and others in the post-structuralist tradition. Yet, Hochschild suggests that part of the emotional labor of service sector work is to produce a *convincing* performance. To perform is not enough, and in fact, to appear as if one is performing in the first place is to fail the test of acceptable emotional labor. Authenticity is *produced* (it is not original), but in that very production it must spontaneously appear precisely to *not be produced* (that is, to be devoid of historical content) or otherwise fail to be recognized as authenticity as such. The covering of production *in the moment of production itself* is perhaps one of the most important and constitutive components of contemporary work (production is a 'hidden abode' in many more ways than Marx anticipated), and one of the tasks of a conscientious labor politics is to identify the mechanisms and processes by which subtle forms of production (the production of subjectivity, authentic feeling, put on smiles, the appearance of realness) are covered up and constructed as beyond the dominant regime of visibility.

Grundrisse. The general intellect for the autonomists is a set of a priori circumstances and capacities shared between workers, for example their ability to communicate, cooperate, and the labor-power immanent to the collective (Virno, 2004). These writers suggest that the reorientation of capitalism to its dependence on the organization of labor itself (rather than the alienation of the worker from commodities in the process of production) provides additional room for resistance to capitalism's exploitative mechanisms.[19] For autonomists, the defining feature of industrial production is the congealment of the general intellect in fixed capital, while in the post-Fordist moment the general intellect remains immanent to workers. The autonomists therefore stand in contrast to Hochschild's analysis. For the autonomists, there is additional potential for alienation to be troubled and for resistance to capitalism to be enacted, while for Hochschild, alienation is no less present, it is merely different. The autonomists' analysis is one that attempts to incorporate political theory into political economics - it is at once a political and an economic argument. They thus emphasize the democratic potential of work, in which, since post-Fordist production does not immediately divorce from the worker the product of their labor-power, this power remains particular to them, and thus might be re-oriented toward an alternative model of resistance to capitalist forces.

Where the autonomists see the potential for emancipation, Hochschild sees

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[19] According to the autonomists, the production of labor's *organization* is a contradictory aspect of contemporary capitalism. Though organization necessitates a form of discipline, it also involves communication and collaboration, a form of being together for the multitude. By this they mean that capitalism is forced to function by providing workers with an endemic form of solidarity. In organizing the production of subjectivity therefore, the autonomists suggest that organization might simultaneously produce the conditions for subjectivity to organize, that is, contemporary capitalism itself also provides the conditions for collective action. Virno (2004, page 41, original emphasis) writes, "The *sharing* of linguistic and cognitive habits is the constituent element of the post-Fordist process of labor. All the workers enter into production in as much as they are speaking-thinking. This has nothing to do, mind you, with 'professionality' or with the ancient concept of 'skill' or 'craftsmanship': to speak/think are generic habits of the human animal, the opposite of any sort of specialization. This preliminary *sharing* in one way characterizes the 'many,' as being 'many,' the multitude; in another way, it is itself the base of today's production. *Sharing*, in so far as it is a technical requirement, is opposed to the *division* of labor - it contradicts that division and causes it to crumble." In a political sense, what Virno means is the collapse of the distinctions and separations between labor and action that Hannah Arendt (1958) establishes in *The Human Condition*.

another form of alienation.[20] It could be that in trying to recue the political concept of democracy, the autonomists fail to adequately theorize the contemporary capitalist ethic. Indeed, comparing the autonomists' perspectives to the ones of Weber, Foucault, and Hochschild above, we can criticize the former for implicitly setting up an opposition between the objectification of the general intellect in fixed capital and the objectification of the general intellect in a set of values, ideas, ethics, and attitudes. For the autonomists, the former being materialist, while the latter idealist, there seems to be hope in the latter presumably because ideals are 'less real' and more open to contestation and emendation than the material objectification of labor and the circumstances of the extraction of surplus value in fixed capital and physical commodities. The implication, that machines are intransigent and ideals, ethics, disciplinary systems, and subjectivities can be relatively easily changed, re-oriented, or diverted, is precisely a point I would like to question in this project.[21] Absent from the autonomists perspectives is any idea of fantasy, desire, or affect, any account of how workers might become attached to their circumstances of exploitation (that is, the set of conditions that underwrite the extraction of surplus value), and, perhaps just as importantly, any account of how contemporary production is also divisive and individualizing, and far less cooperative than implied in the autonomists' conceptualization.

On the division and individualization of contemporary labor practices, and as I discuss more thoroughly in later chapters, digital forms of labor, such as Amazon's

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[20] Interestingly, the desire for work to be unalienated is shared between the autonomists and many of my research subjects, who often told me that they wanted to be entrepreneurs or work for smaller companies because they didn't want to work for someone else. They wanted to retain control, or at least have more control over, the products of their labor. This is an opportunity to examine the intellectual hubris and question the desire for a radical exteriority or break with alienation. What does it mean when the opinions of presumably progressive intellectuals and the privileged orchestrators of neoliberal forms of entrepreneurial subjectivity coincide? Perhaps it would be more productive to argue, rather than for a form of unalienated labor, for less work, for better work, for less optimistic attachments to work, and for work to encroach less on our lives, rather than to pledge a utopian hope in an altogether unalienated form of work.

[21] I do not imply that it is impossible to re-orient desire, or create new lines of flight and escape, but I do think that the autonomists underestimate the relationship between fantasy and reality, and the power of systems of attachment and optimism for reciprocity and intimacy.

Mechanical Turk, and ridesharing systems such as Uber, are individualizing insofar as they actively deter workers from communicating with one another, and retain unilateral power to detach workers from the platform that might guarantee their continued remuneration if they are found to be doing so (Irani, 2014; Lehdonvitra, 2016). The autonomists often use the potential for interaction online as a model for the immanent, emancipatory, and democratic character of post-Fordist production, yet do not identify how these systems of control also make workers into 'bits' or 'dividuals' of human capital, to be more easily separated from communication and contact with one another, and more easily regulated and controlled (Deleuze, 1990; Brown, 2015).

1.2.6. Locating desire in the infrastructure of production, or, value's surplus

To build on the conceptual work that views the objectification of labor power as evinced by sets of attitudes, ideals, ethics, and disciplinary systems, Deleuze and Guattari (1983), in a model that attempts to find a coincidence between political economy and psychoanalysis (what they term a "material psychiatry"), suggest instead of Marx's categories of production and social reproduction, the more general concept of 'social production.' Rather than separating production and reproduction into the remunerated and unremunerated, or the different spheres of home and office ("there is no such thing as relatively independent spheres or circuits, production is immediately consumption," 1983, page 4), Deleuze and Guattari suggest that production should be thought more broadly as the production of the social, uniting production and reproduction as coterminous rather than distinct. In this model, capitalism is less a system of accumulation (though it is undeniably also that) and more a system of attachment, in which precisely the thing to which the subject is attached is the given model of production over others. They write (pages 11-12),

> "the essential thing is the establishment of an enchanting recording or inscribing surface that arrogates itself to all productive forces and all the organs of production, and that acts as a quasi cause by communicating the apparent movement (the fetish) to them. So true is it that […] all sexuality is a matter of economy."

This recording or inscribing surface is a kind of social code, a set of rules, a system of behavior, or the organization of bodies. This code is produced alongside production, and is not separate from it. It is this production of recording (that they also call registration or

enrollment), that orients subjects so that they are situated *alongside* and in line with the processes of production, rather than away from it, that would be, insubordinate to it. The production of the recording surface therefore, for Deleuze and Guattari, is something like the alignment of affect, an arrangement of acquiescence, or the curation of a simultaneously material and psychic system that produces agreement with the mode of production.

In Deleuze and Guattari's system, the laboring subject is not an autonomous agent that arrives in production's hidden abodes immediately ready to resist, or fully aware of their own intentions, which are necessarily and always antagonistic toward the capitalist. The site of production is the site for the production of subjects and subjectivity itself. These subjects are necessarily continuous with the sphere of production, which they are already connected up to as a component of *social production*, since production is not just confined to state capitalism's "hidden abodes," but is as well the auto(re)production of the social itself. As Marx himself said, the site of production is also one of consumption - the materials of production are consumed, transmuted alongside the energy of the worker, their labor-power, into the commodity. Deleuze and Guattari see in this a form of consummation, something pleasurable, at least in the abstract sense of the transformation of energy that they see at once as libidinal and laboring. The transformation of the materials of production into a commodity is itself a system of attachment, not only one that produces an attachment in the subject, but one that produces the subject themselves, a subject - the residual of production, its excessive addition, value's surplus - that is *already attached* and oriented toward their circumstances of work.

This is perhaps too bleak an image – I've described a movement from the naïve utopia of the autonomists to an incorrigible post-structuralist negativity. How are we to evict ourselves of this impasse? Especially if we are only the excessive residuals of a system of production that already pre-exists us, logically and ontologically? Yet, these are not a new question for post-structuralist thinkers, who conceptualize the inauguration and interpellation of the subject as already within a linguistic system. If we are to follow the lines of Deleuze and Guattari's argument, we see that they are ones of escape, as well as capture and stratification. Deleuze and Guattari, while conceptualizing the subject as produced alongside the mode of production, also note that this subject exceeds their

immediate circumstances of production, and may follow lines of flight that state capitalism's apparatuses of capture and acquiescence do not intend. The appropriated war machine may not be so once and for all. The main theoretical point here (and the point that I think is missed by the autonomists) is not to put the cart before the horse, conceptually speaking. The laboring subject does not 'come before' or somehow pre-exist capitalism. Labor and capital are co-constitutive, and exist only in a relationship of immanence in one another. To conceptualize the former as radically distinct from the latter is to fail to adequately theorize the role of ideology, language, and affect in the mode of production. Resistance cannot precede interpellation, since we are always already interpellated. The only possibility for imagining alternatives to economic systems, narratives, and systems of attachment therefore, is to conceptualize subjects and capitalism as connected to one another in a relationship of intimacy, reciprocity, and mutual desire, or instead mischaracterize the relationship between subjects and capital, and therefore also misdiagnose possible systems of resistance. As Foucault (1978, page 94-95) notes,

> "relations of power are not in a position of exteriority with respect to other types of relationships (economic processes, knowledge relationships, sexual relations), but are immanent in the latter, […] they are the internal conditions of these differentiations,"

and,

> "where there is power, there is resistance, and yet, or rather consequentially, this resistance is never in a position of exteriority in relation to power."

From this point of view, the autonomists are attempting to locate resistance as immanent to the organization of *production* (but while continuing to conceptualize labor and capital as distinct systems) by suggesting that labor-power and the systems of cooperation that production entails could be harnessed by workers and the multitude, rather than by capital. But they present too neat a picture, they fail to view ethics and disciplinary systems as barriers, blockages, and stratifications just like the materiality of the fixed capital of industrial production, and mistake the constraints of digital forms of production as a new model of cooperation.

Indeed, one of the most sustaining problems with the autonomists' theoretical work, and even though they borrow (albeit selectively) from Deleuze and Guattari, is that they fail to see capitalism as a system of identification and investment in the mode of

production, and as coterminous with the production of desire and a social unconscious. The autonomists cannot understand, and don't have a language to talk about, how labor is asked to sympathize with capital or why it does so. In viewing labor as radically autonomous from capital (but resistance as also somehow immanent to it), they fail to see why it is compelling for workers to imagine themselves not as parts in a soon-to-be-emancipated multitude, but as instead 'bits' of human capital. This is, I think, one of the most successful and sustaining achievements of a capitalism that increasingly asks workers to identify, not with one another, but with the concerns of capital itself. Alongside Deleuze and Guattari, writers who have attempted to think through this achievement have emphasized capitalism as a system of attachment, in contrast to the often failing models of state support and identification that accompany neoliberal forms of reason. In times of privatization and attrition for the state's concern with the social, Lauren Berlant (2011, page 185) writes that "love is only slightly less contingent than work." When looking for a system of meaning, reciprocity, love, identification, and attachment, there is a waning interest in the state and the support it increasingly withholds, and more optimism for economic systems. She states,

> "during the last twenty years of state shrinkage and temp culture both at work and in the institutions of intimacy, the work of (re)production has been shaped by the increasing demand for flexibility and the increasing expectation that in love as at work, one might as well be only a temporary employee, without affect or material benefits reliably in the present or the future."

Berlant's question in this context is, why do we form and how do we sustain positive feeling and attachment toward systems that appear not to care about us? In the context of my research, this is not to claim that entrepreneurs and other startup workers are not motivated by material gain,[22] most obviously, the promise (however remote) of a financial payoff, but that they are also motivated by the desire to produce and reproduce 'good feeling' toward a particular way of working (that is, their way of working) and an entrepreneurial attitude toward work. The popular denial of material gain as a motivation among entrepreneurs (a theme that came up again and again in my research) is disingenuous, though the social and cultural valorization of entrepreneurial modes of

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[22] Indeed, throughout this project I question the legitimacy of a clear or intellectually defensible division between, on the one hand, remuneration or material reward and, on the other, existential reward.

working over and others was not. As I argue more thoroughly in chapters three and five, in addition to pecuniary motivations (and certainly not without them) entrepreneurialism is the production of a social attachment to particular forms of (often discriminatory, oppressive, and exploitative) working subjectivities over others. In this light, Elizabeth Povinelli (2011) might ask, why we do continue to endure systems and forms of subjectivity that seem so committed to our abandonment? Berlant wants to understand how we are able to maintain optimism for attachment itself, and attempts to seek out ways for attachment to be less cruel to us, to fail to live up to its promises, and to prevent attachment from berating the self. Yet, as Deleuze and Guattari note, attachment is infrastructural as well as psychic (see also Berlant, 2016) and even the conscious diagnoses of a problem (either through the observation of repetition, or a traumatic event) may not be enough in the task of "unlearning attachments to regimes of injustice" (Berlant, 2011, page 184). In this sense, as she describes, we are all subjects of the promise of a better life. For the purposes of this study, this primarily means examining how "participation in the economy gets confused with social belonging," (Berlant, page 186) especially in neoliberal forms of reason where market logics are increasingly imposed on more and more forms of social life (Brown, 2015).

In the turn toward an affective understanding of capitalism, part of the challenge is to understand production as a complex system that is radically excessive of accumulation, that inaugurates subjects, includes language, signification and meaning-making, and seeks systems of narration that attempt to justify the turn toward flexible, insecure, and precarious forms of work as the norm. The idea that neoliberalism deadens or flattens affect, that it produces disinterest in the subject, or an apathetic disposition could not be further from the truth (Konings, 2015). Neoliberalism is an incitement of activity, action, and investment (Foucault, 2008), both personal and economic, in which the enthusiasm for more work remains a primary characteristic (Weeks, 2011). A key task for any theorist of work in the 21st Century is to understand how subjects form attachments with their circumstances of work, with their colleagues, and with their bosses, and thereby reinforce and reify their own exploitation, that is, perpetuate the conditions for the extraction of their own surplus value, rather than seeking solidarity with other workers, and arguing for less work, or better work. To view production as a

system of attachment is broadly the task of chapters three, four, and five of this project, through the example of different kinds of work in San Francisco's digital media sector. In this view, the extraction of surplus value is necessarily always in communication with the non-economic, and in looking at what else happens in the hidden abode of production, we can not only form a more accurate theorization of the techniques by which surplus value is extracted from the worker, but also what falls outside the dominant theorization of surplus value and yet also compliment it, those aspects of social production that form value's surplus.

1.2.7. Conclusion

The consistent claim that I make in this project is that contemporary capitalism must be thought simultaneously as a system that involves both accumulation and identification to the privilege of neither one nor the other. Indeed, capitalism must be viewed at once as the identification with accumulation, and an accumulation of identification. Terms like 'appreciation,' 'investment,' and 'interest' (for example) must suitably be thought to always have two meanings. Investment is of course financial, but it is also social and libidinal in terms of ego-investment in objects.[23] Appreciation indicates a rise in economic value, and to hold something (or to be held) in high esteem, that is to desire or to be desirable. To collect interest is to procure a premium on money lent, while to show interest in others is to give a degree or attention, indicating a relation of reciprocity, whether positive or negative. To view financial flows as flow of desire (Deleuze and Guattari, 1983), indicates the intimacy between economic and social systems. Thus capitalism is an affective system, in which desire is located directly within the infrastructure of production. This is not to detract from explanations of financial motivation, or the continuing necessity of the wage for a great many, but to suggest that these monetary interests are themselves affective too. Indeed, precisely what takes place in the workplace is not only production thought as the extraction of surplus value from the worker, though this is an important aspect of work that should not be ignored, but also

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[23] Freud thought about the ego quantitatively and *economically* and not just psychically. In the economy of the ego, there is a finite amount of the self one can invest in others.

the production of an attachment to work; of working subjectivities; of a way of narrating work that acts to justify that work; and of the attitude that the way work is, is also the way work *should be*. Indeed, accumulation is not just the accumulation of capital, but also the accumulation of feeling, of desire, and of affect. My aim, as I hope I have demonstrated in this section, is not to reject Marxist or economic analyses. And it is not to reject the importance and continuing legitimacy of either the wage function or the pecuniary interests of workers in general, which remain central motivations and contributing factors in capitalism's reproduction and disciplinary mechanisms for a considerable proportion of working populations. My aim instead is to show how the economic at once a cultural, affective, and psychic system, which all exceed while contributing to the reification or attrition of the primacy of the wage. Marx's concept of surplus value therefore, if it ever truly was confined to the wage technology, must be thought in far more general terms. One of the most significant extensions of relative surplus value is seen in the disciplining of the worker, and the demand that the worker identify with their circumstances of exploitation, that they empathize with their colleagues and their boss, and that they draw a form of affirmation, satisfaction, and even pleasure from their demands for more work, longer work, and harder work.

In the examples of work I draw on in this research, the wage technology is one mechanism among many for the extraction of surplus value. The capitalist's strategies have diversified, and they suspect that they can expend less capital on convincing the worker to give their labor power and thereby procure surplus value with less payment, or without the reward of payment altogether.[24] This is clear in the contexts of both equity workers and social media users. Co-founders and early employees of digital media startups often take part ownership of a company as well as (or sometimes instead of)

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[24] The wage and the expectation of an eventual large financial reward as incentives to work have important structural differences. The wage at it's most basic, is a straightjacket technology for the reproduction of labor power (Marx and Engels, 1967). It is a guarantee that the worker will return to work the next day, since their subsistence (and their family's) depends on continued work. If entrepreneurs and other workers are not waged and work for the promise of a larger financial reward in the future, this is an indication both they are in a structurally less precarious position than waged workers, since they are able to reproduce their laboring circumstances by other means, presumably personal savings, and that their motivations differ from that of the need of waged workers.

waged remuneration, since the startup in question may not have the capital to afford formal payment. If equity workers are remunerated it may be in the form of reimbursement,[25] or less-than-market salaries (sometimes based on individual need). This remuneration may be volatile or in danger of being withdrawn altogether. Conversely, if the startup is succeeding, remuneration may also come in the form of overpayment. Users produce value for social media firms in the form of the data that they contribute to the social media platform. They are not paid for their data, yet these data do (or at least have the potential to) produce value for the platform. In both of these examples, expanded upon in chapters three and four respectively, the relationship between value and labor is changing precisely insofar as in neither context is the latter remunerated *by necessity*, and since exchange-value without depreciation is tied to the continued activity of either the individual or the group of users, the strict status of the commodity as Marx defined it is undermined.

In the final example in chapter five, that of contract workers in the on-demand economy, though the contractors is remunerated, the work they perform is comparable to the service sector and emotional labor studied by Hochschild (1983), and yet their work is far more uncertain, flexible, temporary, contingent, and uncertainly remunerated than her example of Delta flight attendants. Further, the physical marketplace is replaced wholesale with the digital smart phone application, which allows the user-consumer to make demands of labor-power at any given moment, and under terms that the latter is unable to negotiate. Thus the digital context of on-demand labor, as in the case of digital 'microwork' (Irani, 2014; Lehdonvitra, 2016) such as Amazon's Mechanical Turk, foundationally undermines the capacity for labor organizing, since workers are not formally able to meet by incidence alone (for example, on the shop floor), and they are prohibited from doing so online unless they want to risk being quietly removed from the platform upon which their continued employment, reproduction, and exploitation may come to depend.

I would like to emphasize one last point about the role of desire and affect in the workplace. It would be foolish to make a historical point about this as others have, that

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[25] This is not to imply that reimbursement and remuneration are identical methods of payment.

the affective and desiring capacities of capitalism have become more attuned in recent decades. Industrial production is desiring-production just as much as service sector work. There is not a point in history at which we can suggest, "this is where and when the workplace becomes saturated with desire."[26] As I have shown, particularly in reference to Foucault, the capitalist and others have always organized strategies for orienting the modes of work in line with the mode of production itself, and gathered the interests of workers toward the production of a 'more effective' and 'better' working subjectivity. Equally important however, we must not suggest therefore that the coincidence between desire and work have always meant the same thing. Nothing could be further from the truth, and though Marx never emphasized those aspects of capitalist history, Deleuze and Guattari's (1983) attempt to do so since is indicative of this viewpoint. Indeed, with Foucault (1970) it would be productive to view history, and in particular a history or genealogy of work as radically discontinuous with itself, that is, as Deleuze (1994) might also emphasize, defined by difference and not by similarity and continuity.[27]

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[26] This tendency can also be seen in the autonomist's concept of 'affective' and 'immaterial labor' that they too broadly, generally, and abstractly attribute as novel characteristics of post-Fordist production. To be clear, I am not suggesting that affect does not play a role in work. Indeed, much of this project is precisely staked on the claim that affects are produced in and circulate through the workplace. Instead, I take issue with the suggestion that post-Fordist forms of production are somehow *more* affective than earlier forms of production (e.g. Hardt and Negri, 2000). As noted earlier, post-Fordist production might be said to be *differently* affective, but not newly or more affective than earlier forms of production. Similarly, we should dismiss 'immaterial labor' (supposed to describe the 'informational component' of contemporary work) since the term is immediately oxymoronic (labor has never been, nor will it ever be, 'immaterial,' especially insofar as one possible meaning of 'immaterial' is 'unimportant,' and 'irrelevant'), and therefore it is far too obviously and absurdly inexact to be applied realistically as a useful concept.

[27] It's worth noting here another famous attempt to historicize capitalist development, which is Giovanni Arrighi's (1994) *The Long Twentieth Century*. Arrighi's is a brilliant and ambitious attempt to think through the relationship between the rise and fall of financial centers in Europe (and later the United States) and their relationship to long cycles of both economic production and also city- or nation-state building. Arrighi charts this history for the past six-hundred years, carefully noting and emphasizing the differences between Genoese, Dutch, British, and most recently US finance, as well as their relationship between centers of production and what Deleuze and Guattari (1983) might call anti-production, that is, state-craft, a solution to David Harvey's (2010) "surplus capital reabsorption problem," which is precisely *not* the reinvestment of capital

1.3. Disciplinary orientations: Cultural economic geography

1.3.1. Introduction

This work contributes to a number of literatures in economic and human geography, as well as debates relevant to the broader social sciences, and to approaches that see themselves as committed to, in particular, post-structuralist social theory. In this section I outline how this dissertation contributes most notably to the cultural economic tradition in economic geography, though necessarily also draws upon other areas in the traditions of critical human geography, economic geography, and cultural geography. With writers like Trevor Barnes and Eric Sheppard (2010), I want to suggest that there is value in making normative claims about what economic and human geography *should* be, not to the end of constructing a discipline with a singular, unified, and therefore totalizing (and exclusionary) focus, but to outline multiple areas of interest and potential lines of collaboration and thought to pursue, and to create thoroughgoing discussion into the merits of pursuing certain topics in particular (see also Samers, 2001).

The literature I examine in this section is broadly in line with the idea that cultural economic geography has been and can continue to be associated with the construction of a progressive political and ethical attitude toward labor practices, thinking through the problematic of work, remunerated and unremunerated, as a continuing central and

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in the mode of production, an archetypical characteristic of the capitalist according to Marx. Hardt and Negri (2000, page 238) critique Arrighi for his "demonstrate[ion] of how everything returns [to the same], or specifically, how capitalism always returns. The crisis of the 1970s, then, is really nothing new. What is happening to the capitalist system led by the United States today happened to the British one hundred years ago." Yet, I think, again Hardt and Negri take pains to mischaracterize Arrighi's important project, and in doing so, retain for themselves a Spinozan Deleuze, rather than a Marxist one. To suggest that Arrighi is only identifying similarities in order to predict the failure of US finance in the late-20th Century is an astonishingly reductionist take on *The Long Twentieth Century*. Arrighi emphasizes difference as much as similarity, which is obvious from the painstaking detail of his work. My point is to emphasize my conceptual approach in the work that I present here, which I see as being one more of making connections (especially between Marxism and post-structuralism, between political economy and affect theory, between economic geography and cultural geography) than rearticulating theoretical divisions. We can read *The Long Twentieth Century* as anti-Deleuzian, as Hardt and Negri do (though it is far from certain why this is a negative in its own right), or we could read the connections between the Arrighi's rich historical work and post-structuralist thought, as a strategy for understanding how desire is located in the infrastructure of economic production (Deleuze and Guattari, 1983).

defining feature of everyday life, and building on some of the conceptual reflections presented in the previous section. As writers like Doreen Massey (2013), Kathi Weeks (2011) and Wendy Brown (2015) have noted, the role of market logics and economic language in contemporary society have both become particularly normative and hegemonic in their own right, and thus for these authors, challenging the hegemony of pro-capitalist logics requires the orientation of an alternative way of talking about and discussing the value of work, the importance of the social, the public sphere, non-economic forms of participation, and of democracy in general. In this light, I suggest that forming a thoroughgoing understanding of work, its internal logics, the lines of power it communicates and distributes, and the forms of fantasy, narrative, and conventional tropings constructed around it, is a valuable goal for cultural economic and other approaches in geography.

1.3.2. The conceptual failure of 'culture' and 'economy'

In this section I outline the major theoretical tenets brought together under the 'cultural economic' approach in economic geography. I will examine some of the possible ways to narrate the emergence of this tradition, and some of the major omissions from others' attempts to do so. I will also outline the intellectual difficulties in assigning 'culture' and 'economy' the status of unproblematic objects, and emphasize instead that the cultural economy should be thought as an *approach* uniting a set of concerns and questions for studies of economic phenomena. I will thus identify the typical fallacies involved with attempting to define a 'thing' that we can, whether definitively or uncertainly, call the 'cultural economy.' Before turning to the question of cultural economic approaches in economic geography however, it is worth recalling some of the foundational writing in critical human geography on 'culture' and 'economy' themselves, as these debates have a considerable impact on the ability to critique the cultural economy as an empirical *object of inquiry*, while instead suggesting it as a valid *epistemological approach* in human and economic geography.

Just as a number of writers such as Denis Cosgrove, Stephen Daniels, and Peter Jackson among others were beginning to solidify and organize what was termed the 'new

cultural geography,'[28] Don Mitchell (1995) provided a substantial challenge to such a project. In his influential essay "There's No Such Thing As Culture," Mitchell argued that some writers in human geography were treating culture as causative, as if it had explanatory power in and of itself and that culture had thus attained the status of an ontological given. In denying the static status of culture in superorganicism,[29] new cultural geographers purported to identify culture's dynamic inner workings, but in doing so (and in the haste to outline a definitive sub-discipline and research agenda) reified the notion that culture was a definitive object of analysis that could be unproblematically examined, taken apart, and explained. Mitchell argued instead that culture must be retained as a specifically powerful *idea*, that is, something constructed in time and space that can be strategically deployed with disciplinary or normative effects. The task for geographers then, is to "attend to the processes of the social making of the idea of culture (as opposed to 'culture itself')," that is, to understand how the idea of culture comes to have the appearance of givenness in a particular spatiotemporal context, in who's interests, and precisely how that appearance might be reified or resisted (Mitchell, 1995, page 108). This view resonates with the writing of other authors like Clive Barnett (2001, page 19) who suggest that culture can be productively thought not as an object to be analyzed and examined, but as a form of governmentality (see Foucault, 2007) that is directly implicated in "regulating the relations between state, practices of government, capital and markets."

This deconstructivist moment is not of course restricted to the category of 'culture' in human geography (Barnes, 2003). Noel Castree (2004) similarly notes that

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[28] The 'new cultural geography' is an approach that focused on the role of language, representation, text, and discourse in the production of space, and included a methodolocial focus on 'reading the landscape,' that borrowed extensively from materialist Marxist perspectives and perspectives in cultural studies such as those put forward by Raymond Williams. New cultural geography had an ostensive concern with power relations and inequality, through the lens of social difference including, most commonly, class, race, and gender.

[29] Superorganic perspectives, whether self-consciously or not, view social and cultural phenomena as distinct from organic and physical systems. The superorganic in this view is a 'layer' or 'sphere' that exists in separation from, or as determined by, the 'lower' (and therefore more foundational) layer of physical systems. Superorgancism, in a mode similar to superstructural perspectives, has been widely critiqued in human geography and the broader social sciences since the mid-20th Century.

the economy should productively be rethought in human geography as a regulatory idea rather than an undiscussed object. Castree draws on the writing of Timothy Mitchell (1998; 2008) among others to suggest a historical account of the concept of economy. Mitchell (1998) dates the birth of the modern understanding of economy to the sixty years between 1870 and 1930, which he argues was closely connected with metaphors borrowed from physics and tied to the consolidation of the modernist nation state. In contrast to Don Mitchell's (1995) mostly negative claims about the status of culture in geographical thought, Castree sees two opportunities in the critical task of dismantling culture and economy. The first is the chance to understand the intellectual hubris or anxiety that led to the supposition that either term could be treated as an object or ontological given in the first place. This claim comes from the conviction that academics are also implicated in the production and circulation of knowledge - they are not merely impartial observers (Haraway, 1991). The second is that Mitchell, in his rush to dismiss culture, misses the chance to think through how alternative uses of culture (and not just Western 'high' culture) might also be used in strategies of resistance to normative power structures, that is, 'culture' as justification for liberal claims for inclusion and equality. Therefore, though Castree does not deny the notion that culture should be considered as an 'idea,' he suggests as well that the *use* of this idea cannot be considered as solely for the reification of existing hegemonies.

Having established these theoretical moments - efforts to conceptualize culture and economy as discursive formations rather than objects that exist prior to or outside of the construction of a knowledge or language around them - I now turn to the emergence and narration of cultural economic geography itself in the 1990s.

1.3.3. The cultural turn in economic geography

In his outline of economic geography's history, Trevor Barnes (2001) dates the birth of cultural economic geography to the 1990s, though notes a number of important antecedents such as Doreen Massey's (1984) *Spatial Divisions of Labor*. Building on the theoretical tradition of Marxist political economy emerging in geography since the 1970s, cultural economic approaches in Barnes' estimation can be characterized by their different use and understanding of the role of theory in geographic thought. Barnes,

drawing on Donna Haraway's (1991; 1997) important writing, notes five main changes. First, cultural economic geography views theory as *situated*, that is, produced in a particular social context by an individual or group, and viewed in connection to and not isolation from its contexts of production. Second, theory is *flexible*, *partial, and potentially unstable*, and therefore cannot be necessarily conceptualized as a set of formal rules that refer to a transcendent principle. Third, theory can and should come from *multiple sources*, *traditions*, *and authors*. This is especially clear in the cultural economic geography of the 1990s, given the multiplication of inspirations from cultural studies, sociology, anthropology, feminist theory, and post-structuralist theory. Fourth, theory is conceptualized as *an incomplete work in progress* never necessarily connoting absolute finality, closure, or truth. Fifth, and finally, theory is *antifoundationalist*, that is, not thought to be a mirror of the world 'out there.'

Though Barnes' observations present cultural economic geography as a relatively uncontested transition in the sub-discipline, a number of debates in the late 1990s and early 2000s rendered this transition contentious, at least to some degree. First, Nigel Thrift and Kris Olds (1996, page 313) contrast their perceptions of the "vibrancy" of cultural geography with the "staleness" of economic geography and outlined their problems with economic geography and how, in their view, the "new economic geography […] will be different."[30] In a similar though perhaps more severe critique, Ash Amin and Thrift (2000) question the conceptual relevance of the economic geography as they then saw it, and suggest approaches in cultural geography as an ameliorative for economic geography's supposed deficiencies.

In contrast to Barnes' writing, the interventions by Thrift and his collaborators outline quite a different perspective on recent geographical history. Thrift's interventions with Amin and Olds present the cultural economy as a solution or alternative, rather than a transition, and attempt to give the appearance that their own writing on the topic is

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[30] To confuse matters, around this time, economic geographers were also critiquing another 'new economic geography,' a term also used to refer to a turn in economics toward the use of spatial theories and concepts. Ron Martin (1999) was particularly suspicious of this trend at the time. (See also Martin and Sunley, 2001; Perrons, 2001 for some clarifications on the two uses of 'new economic geography' at the time, one referring to a cultural turn in economic geography, the other to a spatial turn in mainstream economics.)

novel and path breaking. Yet, as Barnes' contribution makes clear, cultural approaches in economic geography had been around for some time before the publication of Amin, Thrift, and Olds' papers, and with notably different proponents than those outlined by the latter authors. Thrift's interventions situate the 'solution' for economic geography as coming from without by framing cultural geographers and their approaches as an external savoir of the former. Yet, the transitions and new approaches populating economic geography in the 1990s were largely endogenous to the sub-discipline, albeit borrowing extensively from a variety of 'outside' perspectives, cultural geography being only one.[31]

A number of works of the early to mid 1990s characterized this shift, perhaps most notably JK Gibson-Graham's (1996) *The End of Capitalism (As We Knew It)*, a feminist critique of political economic perspectives in which the authors argued that human geography and economic geography in particular had failed to take seriously a number of important problems, but in particular, the role of culture and gender in the production of economic practices. Gibson-Graham offer a non-hegemonic and anti-essentialist reading of capitalism through their concept of 'diverse economies,' (see also Gibson-Graham, 2008) as a critical challenge to theorizations that, purposefully or otherwise, read capitalism and processes like globalization as intransigent totalities beyond contestation. These authors read class as radically overdetermined by other forms of social difference (see also McDowell, 2006). Around this time too, Gillian Rose (1994) in her *Feminism and Geography* wrote an influential feminist critique of human geography, lamenting the masculinism of the discipline,[32] the absence of considerations

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[31] Cultural geographers made some effort to engage with the turn toward cultural economic approaches in economic geography, most notably on the topic of consumption and material culture (Cook and Crang, 1996; Crang, 1994; Crang, 1997; Jackson, 1999), though appear to have become less enthusiastic on questions of economy since the end of the 1990s.

[32] As many writers have noted these problems haven't really gone away, and though I would argue that since the 1990s feminist approaches and perspectives have become far more central in geographic thought, the continuing need to repeat the feminist critique of masculinist methods in the discipline is stark (for one example, see Mott and Roberts, 2014 critique of urban exploration). David Harvey's dismissive comments toward Gibson-Graham at the 2015 Association of Geographers Annual Meeting in Chicago, and his continual refusal to cite feminist writers (e.g., consider the limited list of references in Harvey, 2014) perhaps typify the present attitude toward feminist approaches and ideas in

of gender, emotions, and the continuing assumptions of a universal subject unmarked by difference in many accounts. More specifically, and in response to the then-dominant theoretical traditions in economic geography Doreen Massey (1991) and Rosalyn Deutsche (1991) offered further feminist critiques of economic geography, through their twin readings of the masculinist assumptions in David Harvey's (1990) *The Condition of Postmodernity*. These projects and others all provided a particular compliment to Gibson-Graham's critique and context for the emerging cultural economic framework in economic geography.

Further examples of the cultural economic approach in economic geography at this time include Susan Hanson and Geraldine Pratt's (1995) *Gender, Work and Space*, Linda McDowell's (1997) *Capital Culture*, and Erica Schoenberger's (1997) *The Cultural Crisis of the Firm*, which all emphasized (without necessarily being in direct conversation with Gibson-Graham) aspects of this feminist and cultural critique, through a refusal of neoclassical economics and the suggestion that regional approaches in economic geography are not enough to explain capitalist practices alone.[33] These works, among many other books and articles published around this time, offer a number of important insights on a changing view of economic geography that is of considerable relevance to the research I outline here. Linda McDowell (1995; 1997), especially, through her foundational study of high finance in London, emphasizes the need for geographers to take the workplace seriously, and through qualitative interviews locates the production of norms and values in the office at the center of importance in terms of studies of economic activity.

Erica Schoenberger's contribution in *The Cultural Crisis of the Firm* was to show the centrality of corporate decision-making in some firms' relative success and failure

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the discipline from some - one of quiet refusal and lack of engagement rather than argument or outright antagonism.

[33] Though not strictly a geographer, Annalee Saxenian's (1994) book *Regional Advantage* also fits well in this tradition, and has been widely cited in geography. Using the examples of Silicon Valley in California, and Route 128 in Massachusetts in the 1980s, Saxenian critiqued concepts such as agglomeration for being unable to explain the comparative failure and success of some regional economic activity over others, and through the Polanyian-influenced concept of 'embeddedness' (see Granovetter, 1985) offered an explanation that took culture and social values into consideration, and thereby displacing the notion of an economic field populated by 'rational actors.'

over others, in which the outcome of decision-making practices were rarely if ever the result of the 'objective' analysis of economic indicators. Shoenberger shows, through examples of Lockheed, Xerox, the American automobile industry and others, that even when firms have sufficient knowledge of the broader economic context that would indicate the advantage of one decision over the other, firms may instead pursue economically disadvantages avenues, sometimes for decades. She notes that without taking into account an idea of culture, explaining corporate success and failure (an important task given the immense collateral damage accrued by the latter) becomes far more challenging. Of particular relevance to the study I present in this dissertation, Schoenberger is interested in why firms continue to pursue failing strategies, especially in the obvious presence of better options, or, put different (though Shoenberger would not phrase it this way), how groups become attached to certain economic practices over others. In this sense, Shoenberger's (1997, page 149) study highlights how economic "commitments are not merely intellectual […] but also aesthetic and emotional," and how "a specific romantic/aesthetic ideal may impair the firm's ability to adjust to new circumstances and requirements."

Linda McDowell's research on the gendered reproduction of working norms in London's high finance sector also marks an important contribution in economic and cultural economic perspectives. McDowell's (1997, page 206-207) approach is to outline how work is associated with a "particular embodied workplace performance," and "the ability to construct a distinctive bodily image and gendered identity." In short, then, McDowell demonstrates how economic activity is radically excessive of analyses that focus on accumulation alone, and instead intimately implicated in the production of subjectivities, gendered performances, and sexual identities. The workplace is a site in which "there are several gender performances that are acceptable and appropriate fictions […] with the important proviso that they are within the exclusively heterosexual scenario" (McDowell, 1997, page 207). Thus McDowell is not suggesting that economic activity reproduces only a gendered binary with particularly acceptable male and female performances, instead she suggests that performativity in the workplace is multiple, though still more constraining and selective for women, and remains within primarily heterosexual standards, at least in her example of merchant banking.

McDowell's foregrounding of the importance of gender and sexuality in the reproduction of economic practices has been of immense importance and value to both economic and human geography. She has called attention to the gendered implications of the shift toward post-Fordist forms of production, found too in the division of labor and reorientation of the supposed division between production and social reproduction (McDowell, 1991; 2001). Beyond and since her empirical study of high finance, McDowell (2002; 2004; 2006; 2010a) has contributed to an understanding of gender in geography as inter-related with, and not separate from, the concerns of the classed organizations of social difference. Dubbed 'testosterone capitalism,' McDowell (2010b, page 653) in revisiting the themes of *Capital Culture* suggests that

> "the embodied nature of work, the atmosphere of suppressed panic and the macho culture of the dealing rooms still exudes the older vision of embodied masculinity; and women are as out of place today as they were in the mid-1990s in the sexualized culture of this part of the banking world."

Granted, the models of dominant masculinity (see Halberstam, 1998) produced through the high finance sector should not strictly be considered the general model of gendered performativity applicable across the capitalist mode of production, yet at least in the context of this study, that is, in the digital media sector, like in banking, "the workforce is almost entirely masculine in composition - women are still the almost invisible minority" (McDowell, 2010b, page 654).

In the perspectives presented here, it is clear not only that Thrift and others' polemic arrives too late, but it also misdiagnoses the situation, while ignoring some of the most important (and feminist) contributions in cultural economic geography (see also Thrift, 2000). Indeed, taking up Castree's idea earlier that we can use these moments to examine the instrumentalization of concepts like culture and economy in academic hubris, we might ask retrospectively, what responses were Thrift's interventions designed to provoke? His interventions may be the result of an academic opportunism in which he sought to situate himself at the center of a shift in economic geography that had already begun to be oriented toward questions of culture, performativity, meaning, and signification by predominantly (but not exclusively) feminist researchers and writers, as I've outlined above. Indeed, Thrift's comments

may be framed as an attempt (and perhaps an inadvertent one) to appropriate for himself what was nominally a feminist move within economic geography to think through how economic practices and processes are interwoven with the production of an idea of culture, and with dominant forms of hetero-masculinity (Perrons, 2001; Nagar, Lawson, McDowell and Hanson, 2002). I see this point as corresponding to Susan Roberts' (2015) critique of writers in geography like David Harvey, who have a tendency to undercite women geographers and ignore or downplay the value of feminist insight. Alongside continuing criticisms of masculinism, whiteness, and the construction of authority in geography in general (e.g., Berg, 2001; Faria and Mollett, 2016; Mott and Roberts, 2014; Mahtani, 2014), related concerns have been voiced by others regarding Thrift and others' later exposition of non-representational theory (Colls, 2012; Domosh, 2014; Mitchell and Elwood, 2012; Thein, 2005), particularly in reference to the relative absence of feminist critique or emphasis on difference in Thrift's writing (see also Cockayne, Ruez and Secor, 2016).

1.3.4. Reifying culture in cultural economic geography

In contrast to the critiques of culture and economy in the sections above, since the cultural turn in economic geography, some projects continue to attempt to define and demarcate culture as an *object* of analysis. For example, Allen Scott (1997) suggests that capitalism is moving toward a model in which all facets of human culture are open to economic exploitation, and culture in Chris Gibson's (2003) view can be seen as a force mediating relationships and producing workplaces. With the criticism noted above by writers like Noel Castree and Don Mitchell, Chris Gibson and Lily Kong (2005) outline and critique four major attempts to define the cultural economy as an object, that is, by sector, labor organization, a 'creativity index,' and the move to digital formats (i.e., away from analogue in film production for example). Perhaps the most persistent of these is the definition of the cultural economy by sector, the 'cultural' or 'creative industries,' as those sectors that produce 'cultural' or 'symbolic' objects, and that include film, music, fashion, television, radio. These cultural industries are often taken as the archetype for flexible labor and post-Fordist production in general. So we see here, in spite of critique, some degree of ambivalence

toward the demarcation of the cultural economy as an object of analysis, and associated instead with the desire to study something that is genuinely new.

Yet, one of the main difficulties of this sectoral approach is in the suggestion that these cultural sectors and not others are "permeated in one way or another with broadly aesthetic or semiotic attributes" (Scott, 2000, page 2). I take issue with this definition insofar is it presumes that these aesthetic or semiotic attributes were absent in the historically prior, and supposed non-cultural industries. For example, one sector that typically falls out of the definition of 'cultural economy' is automobile production, despite the fact that it would be difficult to argue that cars are not cultural objects, advertised and fetishized in similar ways to other consumer products. Since the cultural economy and the rise of cultural industries is usually narrated alongside a transition to post-Fordist, post-industrial modes of production, usually dated since the 1970s in the United States, and sometimes alongside transitions to neoliberal capitalism (e.g. Lorenzen, Scott and Vang, 2008; Moulier Boutang, 2012), the example of automobiles is troubling to typical cultural economic narratives, at least those taking the 'cultural industries' sectorial approach.

As Shoenberger makes clear, decision-making and the production of an idea of culture caught up with concerns of competition are distinctly present in those 'non- cultural' firms, and in particular in the American automobile industry. Indeed, with Mitchell (1995) we might ask, what particular *idea* of culture is being mobilized in the attempt to demarcate a discrete cultural economy, by whom, and for what purposes? More importantly, what or whom is left out of this narrative, and what kinds of production are excluded? What does it mean to only be able to narrate and analyze particular sectors of work as 'cultural economic?' I suggest that this reveals a prevailing prejudice around the term culture, in which 'culture' becomes reified again as mainstream, hegemonic, Western culture, high culture, and (sometimes) tech culture. Though automobile manufacture is a particularly strange exclusion, I wonder what kinds of "aesthetic and semiotic attributes" we might discover in textile or steel manufacture, for example. Do we somehow imagine these forms of production and industry to be less cultural, and therefore also possibly given the proclivities of cultural economic approaches and analyses as I've

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outlined them, less gendered, less underwritten by the production of sexuality, and less invested with affects, styles, modes, and ethics of work? From this point of view, I wish to reinforce the points I made by reference of Mitchell and Castree, and to a lesser extent Barnett, at the beginning of this section. All work is cultural work, and thus designating a vague (or ontological) 'thing' that we call 'culture' as a way to understand, explain, or categorize this work becomes intellectually redundant. The point is not to suggest that cultural industries are the same as manufacturing or construction - there are real and categorical differences between sectors - yet I argue here that those difference cannot be adequately accounted for through the moniker 'culture,' which obfuscates more as a descriptor than it makes clear. Instead, emphasizing cultural economy as an *approach*, through the understanding of culture and economy as particularly normative *ideas* is far more valuable insofar as doing so does not assign a particular explanatory power to either culture or economy, but situates them as precisely what must be explained, as ideas that are produced alongside the mode of production itself, in addition to forms of accumulation and the extraction of surplus value from the worker. This is certainly not to say that we are unable to identify changes and shifts in the operations of capitalism, and indeed, if we are to take (for example) Foucault's (1970) genealogical approach seriously, identifying *discontinuity* is far more important and valuable than imagining capitalist history (or the history of thought in general) as proceeding by means of a linear and continuous temporality that can all too easily be confused as a form of 'progress.' Yet, I think that identifying *culture* as the factor indicative of capitalism's modification or discontinuity has been profoundly misleading.

1.3.5. Cultural economic geography since the cultural turn

I would like here to outline some of the remaining contributions in economic geography, feminist economic geography, and cultural economic geography that I see as valuable for this present study.

Arguing in particular for a workplace geography, Nancy Ettlinger (2001; 2003; 2004) outlines a microspatial approach to economic geography that she calls an "untidy geography." Ettlinger suggests, in a perspective coterminous and

complimentary to the one outlined by McDowell and Shoenberger above, that researchers pay closer attention to questions of embodiment and emotion in the workplace. Though a small-scale focus and emphasis on ethnographic methods like participant observation, Ettlinger's insight is of clear relevance to the study I present there, since she outlines how the workplace is a site for the communication of power and one that is particularly underexamined in geographic thought (see also McMorran, 2015). In a similar light, other writers have emphasized how spaces of work and spaces of leisure are difficult to differentiate (Centner, 2008; Jarvis and Pratt, 2006). This is both in the context of viewing the office of a space that is constructed as playful and attractive, and in viewing domestic spaces as spaces of work terms of the care of children and others and the upkeep of the home, and therefore the contradiction and ultimately the failure of the distinction between production and social reproduction (Bauder 2001; England and Lawson 2005; Harper and Lawson 2003; Larner and Le Heron 2002).

In taking spaces of work more seriously and thinking carefully through questions of intimacy, affect, and embodiment in the office, Andy Pratt (2006a) notes the 'cultural ambience' of the office, that is, the degree to which office spaces and individual behavior within them are produced to orient a particular feeling for the occupants. Andrew Ross (2003, page 15; page 51), writing about a web development firm in New York states, "the social and cultural design of the workplace […] stole the affection of employees," and, "work had to be recast as an existential challenge, […] almost as stirring as the kind of adrenaline sport or edge travel that beckoned thrill seekers." Ross's comments stress that company spending and employee investment in digital media firms is often directed towards a certain 'vibe,' feeling, or atmosphere, rather than or at least in addition to bottom line logics. The affective spatiality of the office space is therefore very important, not only as a reality, but also as an ideal, as a discursive framing of digital media work that many strive toward, but few achieve. The glamorous image of the tech startup is therefore accompanied with its own imaginative spatial geography, as well as having 'real' impacts upon work relations in the myriad spaces of the office.

Again at risk of reifying culture as an object rather than idea, Allen Scott

(2007) associates the cultural economy with an increasing demand on human cognition, attention, affect, and knowledge, in what he refers to as the 'cognitive-cultural economy.' Scott (2007, page 1466) states "the present moment of history is one in which a so-called post-Fordist (or better yet, a cognitive cultural) capitalism has entered onto the stage in various parts of the globe." Here the cognitive-cultural economy is conceptualized as a distinct moment in the history of capitalism, one accompanied by its own urban spatial formations, the dependence on digital technologies, new divisions of labor and the enrolment of affect and human cognition in processes of production (Scott 2011b, page 846). Digital media provide the cognitive-cultural economy with new modes of production, employment structures and labor practices, in short, new spatial dimensions and divisions of work (Pratt 2009; 2011a; Scott 2010; 2011a), in which precisely what is commodified is the human capacity to pay attention (Wyly, 2013). Though associated to some degree with a critique of Richard Florida's (2002) 'creative class' as deployed by and alongside the more self-conscious and reflective conceptualization of the cultural economy noted by Gibson, the identification of the cognitive-cultural economy does not escape the critiques I've been outlining here.

The turn toward the theorization of attention and affect in economic geography is intriguing, and though the centrality of digital media in the cognitive-cultural economy has important implications for this study, there remains a critical question around the novelty of this supposed shift. Again, I would make the argument that historically, production has always been affective, but that production in the present entails a different communication of affect than in, for example, large-scale industrial production. Demonstrating this point effectively would involve a historicization of the question of affect in economic production that is beyond the scope of this study, but that I hope I made some valuable starting points toward in the first section of this introduction. Historicizing affect in the infrastructure of economic production would also avoid the awkward observation that economic geographers are conveniently suggesting affect to be an endemic characteristic of 'new' forms of production just as affect becomes a fashionable intellectual framework in the humanities and social sciences.

More recently, Gibson (2012) has commented that the cultural economy has remained polysemic and contested. More broadly, Barnes and Sheppard (2010) characterize economic geography as an intensely pluralistic sub-discipline in geography. They outline how diverse approaches have been proliferating with increasing rapidity in economic geography since the 1980s, however they suggest that this pluralism can be characterized as 'fragmented,' characterized by a multitude of monisms, rather than by intersecting (though divergent) approaches in conversation with one another. This is perhaps also true of the relationship between cultural and economic geography more generally. Earlier I characterized the cultural turn in economic geography as endemic to the discipline, in contrast to writers who argue that the shifts towards analyses of culture in economic geography have come from the 'new cultural geography.' It is also worth noting that these shifts have been reasonably one-sided - as culture has become more central to economic geography, it appears that with the shifts in cultural geography towards non-representational theory and affect, toward creativity and making, and toward the geohumanities, economic and cultural geography remain distinct, as the former becomes more pluralistic and verges toward cultural studies, yet without forgetting Marx and political economy (Barnes, 2010), and the latter moves more toward the humanities (Price, 2010; Wylie, 2010).

1.3.6. Conclusion

The shift toward cultural economy as an approach and idea, rather than as an object has considerable implications for the study I present here, especially in conjunction with feminist critique and analysis. The danger endemic to these shifts is the re-orientation of culture and economy as pre-existing empirical objects (even as some theorists warn against this very presupposition), rather than discursive formations that are immanent in the more generalized production of the social, and that does not privilege 'economic' spaces of the factory or the office over the supposed 'cultural' spaces of the home. The turn toward affect and embodiment, emotions and subjectivity, the production of sexuality, and gendered performativity, have all been welcome conceptual shifts in economic geography over the past twenty-five years,

and have clear relevance for this study. I suggest that related to these disciplinary movements is a close commitment to producing a nuanced understanding of work in the late 20th and early 21st Century, that contributes to a thoroughgoing conceptualization of not only why we work (what is, why we work in this way in particular, and not in other ways), but also what work does, and what happens in the hidden abode of production beyond the extraction of surplus value and accumulation in the interest of the capitalist. Indeed, these excessive forms of production and the orientation of the subject to particular styles or ethics of work over others may be directly implicated in to extraction of their surplus value, but so too may they be excessive of and adjacent to that surplus.

Instead we can think through sites of production in their myriad forms of sites where attitudes toward work itself are reproduced. In the material I present here for example, I examine how digital media work is caught up in the production of a particular notion of entrepreneurialism (chapter three), how the work of social media firms produces an affective feeling of attachment between users and a platform, prior to the generation of revenue and realization of value (chapter four) and finally, how the flexible labor of the contract worker in the on-demand economy is normalized and justified, at least partially, through the sharing discourse (chapter five). In the presentation of theoretical and empirical material in these chapters, work is conceptualized as productive of affective attitudes and emotional orientations. Moreover, work cannot be understood as the sole function of the wage-technology, and there are many more strategies for the extraction of surplus value from the worker. The economy therefore, in addition to a system of accumulation, is productive of subjectivities and attachments, and offers for the worker a set of meanings and significations that often take the form of an optimistic promise for inclusion, belonging, and a more satisfying life.

1.4. Disciplinary orientations: Critical studies of technology in geography
1.4.1. Introduction
Originally, I conceptualized this project as one in which I sought to understand how the values and motivations of those who produce digital and social media are worked

into their projects, to then see if and how those values and motivations are passed on and communicated through those media. To some extent this is still the case, at least insofar as this study focuses on the production of digital media, and the communication and transmission of working ethics associated with that production. This dissertation also contributes directly to studies of technology in geography in the sense that it attempts to render visible digital and technological practices, as well as laboring ones, that are often unseen and unthought, and thereby remain immaterial or unimportant from the point of view of the public, a project geographers have been already been undertaking in a number of ways. Rob Kitchin and Martin Dodge state that there's a clear need to examine software at the point of its production. They state that there is critical need for "studies of how developers produce code" to determine how "software is diversely created and unfolds within contextual frames" (Kitchin and Dodge 2011, page 247). Similarly, Kitchin (2011, page 946) notes "we know very little about the ways in which software is socially created; the nature of software itself; [and how] practices and knowledge get translated into algorithms and code." Scott Kirsch (2014, page 3) too, identifies sites of "human-nature-technology relations" as an important arena for future geographical research, and Sam Kinsley (2014:15) writes, "there have been comparative few studies of the material practices of technology production." Others also note the importance of technics and the digital as important sites for geographical analysis (see Ash, Kitchin and Leszczynski 2015; Kinsley 2014; Wilson 2014).

Thus, there have been a number of clear calls from writers in geography to engage with the production of software, a project that I have undertaken from the point of view of laboring and working practices, rather from the computer-human interaction study. I moved from taking digital media as the object of analysis, to taking the startup and workplace practices as that object (see chapter two for more on the problems in taking the 'startup' as the object of analysis). Indeed, software itself is rather marginalized in the material I present in chapters three, four, and five. For several reasons therefore, the present study diverged significantly from the originally intended project (though also retains some important connections with it too), and I would like to spend a little time reflecting on some of the intellectual reasons for

that shift, as well as the sustaining connections that remain before continuing.

1.4.2. Disconnection

First, and perhaps most importantly, I had a methodological concern. Once I began preliminary fieldwork, I discovered a disconnection between what I had proposed and what I found to be realistic and possible. A study of how social values become embedded in code at the point of their production would necessitate extensive observation of developers as they worked, and discussions with them about the particular decisions that they made at a given time. Though developers were generous with their time, and generally willing to talk with me in an interview setting, their hospitality toward me as a researcher had a limit, and for most that limit would be quickly approached if I asked to observe the coding process itself. Many were suspicious of this request, and it became clear that I would need more of an insider status to be able to make the request and have it be met with anything besides a negative set of responses. It would require knowledge of different coding languages that I did not possess to understand the nuances of why some decisions were made over others, and it would require an understanding of best practices, to assess those who were 'in the know,' and those who were not, and the differences between them. Overall, relatively early in my preliminary fieldwork I realized that I would not be able to answer the questions or address this problem as I had initially conceptualized it.

Second, I had an empirical concern. Perhaps counter-intuitively, I quickly began to question the importance of the software developer in the production of digital and social media. This is not to say that the developer is not a primary figure, but instead that the lines of power that run through the production of digital applications in San Francisco are far more complex, and circulate through too many non-technical institutions and subjects to ever be reducible to the software developer or the lines of code they write. To privilege the developer would be like mistaking the product for the process. Software development, and perhaps 'creative work' in general, is underwritten by many other factors, by entrepreneurial and working fantasies, by the legal context of firm structures and hiring practices, by financial concerns, by infrastructural supports, and by social forms of supposedly individual differences, as

much as by the software developer.

In particular, the significance of money and investment, as well as the business acumen of the non-technical entrepreneur quickly struck me as far more significant factors than I had initially thought. I could not in good faith therefore attribute the production of code singularly to the software developer at all, which significantly undermined part of the original premise for this project. And if the software developer is not the unilateral or singular producer of code, can we still support the premise that their values and motivations (rather than or in addition to those of their colleagues, their CEO, etc.) are somehow communicated to users? Perhaps, but this question proves far more complex, and the answer may be impossible to adequately determine from the points of view of individuals. In short, it seemed impossible to pursue this line of inquiry without either, a) attributing to the software developer a very special power that they simply did not have, and/or, b) reproducing a particular notion of the sovereignty of subjectivity. In attending to the messy practices of software development, I turned to an analysis of work, and had to abandon questions around the transmission of values from developers to their media, though instead thought about the startup workplace as related to closely to the transmission and communication of working practice, ethics, and affects.

Third, I also had a conceptual concern. I was wary of making technology into an object of study because of a number of intellectual tendencies in geography and the broader social sciences in which there is an ontological priority given to the interaction of objects, to the extent that the human is reduced to only a component or node in a complex system of objects. Though in many ways this is coterminous with the anti-humanism particular to French post-structuralism that I find fealty with in this project (and that developed into a post-humanist leaning in some areas of the humanities and social sciences), I think that this kind of theorizing, that I would associate with object oriented ontologies literatures beyond geography, and non-representational theory within geography, impedes the ability to focus on questions of ethics and social and economic justice. In making phenomena into a complex system of objects, these theories firstly objectify the human (rather that showing, as the post-structuralists do, how the entity denoted by the discursive formation referred to

as the 'human' is produced and objectified by broader social, economic, or linguistic processes), and secondly, homogenize the human, thereby making the human into a single function of sameness identifiable only at a level of generality. By examining the human as a technical entity in terms of physical, biological, and mechanical processes, these studies risk ignoring or simplifying the complex system of differences that include embodied or 'individual' differences that structure our world. That is, they risk ignoring how apparently 'neutral' technological systems are implicated in the production of a racist biopolitics, or the regulation of a modernist discourse on sexuality.

This is not to say at all that the role of technology is absent or irrelevant. Indeed, given that this project remains about the political economy of digital media production, this claim would be absurd. Yet, there was still a problem and question about how best to understand and theorize technology in this context, given that academic and popular commentary often rather overdramatize and romanticize the role of the developer and the significance of their product (rather than the complexities of the process of production itself). In the final instance, technology remained significant in this study for that very romanticization, for the discursive role popular fantasies play in the reproduction of working norms and practices in the context of digital media production (Turner, 2006). This is perhaps most clear in chapter five on the on-demand economy, where I critically examine the relationship between the sharing trope in the digital context and the demand to solicit the purchase of another's labor-power.

Yet for these reasons - methodological concerns, empirical concerns, and conceptual concerns - technology in this project took a subordinate role in contrast to the question of work and the more urgent task that I saw in the digital media sector, an outline and critique of the laboring practices at work there. As noted earlier in this introduction, this was only not a turn to economic analyses, but to a cultural economic perspective that allowed me, through a number of other conceptual tools, to view the scene of production as one for the accumulation of subjectivity, affect, and desire, as well as the accumulation of capital. A primary finding that I sought to explore and extend more fully, is that the workplace is a site

in which particularly normative ideas about what work should be like are produced and reproduced. Thus, as I argue in chapter three in more detail, I conceptualized digital media work as the work of producing entrepreneurialism itself. Technology is by no means absent from this production, though I would hesitate to situate it as central, other than as a justification for idealism and the optimism for social change no matter the cost or collateral damage and always only for the internet or smartphone user.

1.4.3. Connection (or, 'mediation')

Of course, there are also a great many lines of intersection between this project and other studies of technology in geography. In the relatively recent history of geographers' direct and conscientious engagement with the question or problematic field of technology, I see three main intellectual contributions. The first is the tendency to question and combat technological determinism (Bingham, 1996; Graham, 1998; Hinchcliffe, 1996; Kirsch, 1995; Zook, 2000). These studies have challenged narratives that frame space as becoming increasingly irrelevant, as being annihilated by time, or that sought to imagine a globe shrinking as a result of increasing interconnectedness. Geographers have shown that this is far from the case. Technology is productive of new and uneven spatialities that contribute to the social construction of space, but technology is not a condition for the wholesale eradication of spatiality (Kitchin, 1998). Part of the strategy in the opposition to technological determinism was to clearly establish digital systems as concrete and material, and to reinforce that they did exist in particular times and places, supported by physical infrastructures and flows of capital (Zook, 2001; 2005), albeit ones that were often hidden.

Geographers such as Dodge and Kitchin (2005a; 2005b) emphasize to co-production of space and technology in what they term the autonomous production of space, in which space is conceptualized as 'transduced' or ontogenetic in co-constitution with its software-saturated and software-sorted content (Graham, 2005). These writers distinguish between coded space and code/space, in which the former suggests augmentation without a mutual dependency, while the latter implies an absolute co- dependence between software and space. Thus, in a code/space if either

the code or the space 'fail' then so does the ongoing production of that space wholesale - the space fails to function. Kitchin and Dodge (2011:72) write,

> "software solves relational problems by acting as a catalyst for transductions to occur and sustaining individuations within a modulation. Code thus transduces everyday life, alternatively modulating sociospatial relations."

The archetypical example of the code/space is often given as the airport (Adey, 2009; Adey, Budd and Hubbard, 2007; Budd and Adey, 2009; Dodge and Kitchin, 2004; Martin, 2010), but code/spaces are increasingly described as domestic (Dodge and Kitchin, 2009), and urban, through smart-city projects (Gabrys, 2014; Kitchin, 2014a; Klauser, Paasche and Söderström, 2014). Other spaces too are beginning to function irretrievably based on software systems. Of course, the space of the office, and especially the space of the startup firm and software developer will necessarily be code/spaces. There is very little work that can be done in these settings, even non-technical work, that does not depend on technology. Even the work of the non-technical entrepreneur is largely dependent on relatively simple digital technologies such as email. Aside from attending already-scheduled in-person meetings, there is likely to be almost no work that the startup team can accomplish without software, hardware, and infrastructure to permit access to the web.

Second, and closely connected to this first point, geographers have also questioned and critiqued the assumption that 'real' spaces and representations of the world online (sometimes termed 'virtual' spaces) are somehow distinct and separate. In emphasizing the uneven effects of technology on the production of space geographers have also emphasized uneven participation and experiences online, even in circumstances in which there is, or at least appears to be, even degrees of access to the internet across populations. Monica Stephens (2013) for example outlines the gendered production of online content through an analysis of OpenStreetMap. Similarly, Mark Graham, Ralph Straumann and Bernie Hogan (2015) examine the content contributed to Wikipedia. Both these studies demonstrate that relatively few people contribute most of the content online. These writers, contributors, and editors are most often white, male, educated, and Anglophone. This kind of analysis radically undermines the often-unquestioned conviction that digital systems are wholly progressive and unassailably democratic technologies (e.g. Hardt and Negri, 2000;

Castells, 2012). On a related theme, geographers have also emphasized the uneven character of representations online, to suggest that, filtered through opaque and 'duplicitous' algorithms and code, the representation and therefore ability to know the world, is foundationally limited through digital systems, such as Google Maps (Graham and Zook, 2013; Graham, Zook, and Boulton 2013; Zook and Graham, 2007a; 2007b). At stake for these authors is the question of how we apprehend and know the world, as well as the question of representation online. In filtering experience through digital systems that purport to represent us 'all,' our ability to know and understand is foundationally abrogated, since so few create content online, and fewer still design the frames and means for us to view that content (i.e. GUIs, web pages, digital applications, algorithms that enable search functions, etc.).

Finally, geographers have sought to materialize digital spaces themselves, in contrast to popular imaginaries that tend to frame the internet and infrastructures that support it as without a physical materiality (Graham, 2010; 2013; Kinsley, 2014; Wilson, 2011; see also Starosielski, 2015). Thus writers like Trevor Paglen (2015) ask us to think against metaphors like 'the cloud' and think instead about how the internet might be viewed by the state or the CIA, as for example, a system of global surveillance. Paglen asks that we think through internet infrastructures in terms of a regime of visibilities and invisibilities, in which there are careful attempts to manage and curate not only precisely what is seeable, but also the frame or lens through which the seen is given as seeable. Others, such as James Ash (2009; 2010) and Sam Kinsley (2010) have thought through the relationship between the production of the body and technology, theorizing bodily interactions with technology as affective and material, and in terms of increasing and decreasing capacities. In this sense, the use of digital systems, far from being evidence of the immateriality components of contemporary life, is incontrovertible evidence of the physicality and materiality of bodies - indeed, part of the appeal of interaction online is the conviction that there is a physical *someone* with whom we are communicating. In this sense, digital systems, without collapsing, distance, or erasing space, plays with and contorts the relationship between intimacy and proximity that in a sense only restates the importance of material bodies in the co-production of uneven spatialities.

In addition to these aspects of geographical research, I see many points of connection between the material I present here and Agnieszka Leszczynski's writing. Leszczynski (2012, page 73) emphasizes the importance of the political economic in studies of software and technology, and asks the reader to think through the connections between technology and other phenomena since, "transformations are rendered invisible if we are left with accounts of phenomena as solely technologically and pragmatically driven." I take from this the need to contextualize technology within other complex systems, which correlates closely the approach I take in this project to theorize technology in a broader political economy and in the context of changing work ethics. In questioning the explanatory value of technology itself, Leszczynski's writing represents a contribution to geographic thought that seeks to connect up various sub-disciplinary facets, and presents a sophisticated approach that assists in understanding the role of technology in political and economic processes, without reducing the latter to a mere function of the former. Leszczynski outlines questions of labor, ownership, and accountability as particular areas in which technology alongside neoliberal models of governmentality form an intersection or convergence, a problematic for contemporary thought and theorizing.

Leszczynski (2015a, page 979, original emphasis) takes up these themes elsewhere to think through the production of 'control anxieties' in the context of the ordinary presence of flows of spatial data, that is "the *effects* of the intensifying organization of surveillance around big data production and analytics, if not mass surveillance itself." Leszczynski (2015b, page 747) puts forward the concept of mediation to think through

> "our techno-socio-spatial relations - our being-with locational technologies, being in space/place, and our being-with each other in a technological present characterized by the pervasiveness and entrenchment of spatial media in the spaces and practices of everyday life."

Mediation attests to the failure of any epistemologically sound distinction between 'real' and 'virtual' spaces, and foregrounds the importance of understanding the relationships between technology (that often betray our physical location) with existing political and economic systems. Mediation attests to the changing

epistemological frameworks of governance associated with location-based and other technological systems, in which the management of life is increasingly facilitated by geovisualization, hyper-granular data, cartographic systems (Elwood and Leszczynski, 2013) and in ways that are deeply gendered (Leszczynski and Elwood, 2015).

1.4.4. Conclusion

The points of disconnection and connection I outline here highlight the critical and ambivalent approach I take to think through and theorize technology. This is especially the case given the popular and intellectual tendency to reify technology as an object in and of itself, to mythologize technology, to reproduce 'real' and 'virtual' as consisting in distinct or oppositional spatialities, and to stake a utopian faith in the democratic promise of technology, which only serves to ignore social political circumstances and contexts that radically exceed the presences and absences of technology (as in the absurd and insulting reduction of protests, demonstrations, marches, and occupations in Egypt in January 2011 to a "twitter revolution"). Yet, I have also highlighted work already being undertaken in geography to combat the mischaracterization of the role of technology in contemporary society, pointing in particular to Leszczynski's concept of mediation as a way to think through the inter-connected character of digital media, technology, and internet infrastructure with other phenomena. These conceptual underpinnings have been influential in this research insofar as I view technology and digital media as closely connected with work, yet also seek to understand how normative working ideals, ethics, and practices exceed the nominal objects and products (i.e. digital applications) that the appear to be oriented around. In the next chapter I outline the techniques and methods used to approach the research that I present here, and ask, "what is a startup?" The 'startup firm' quickly became the object of analysis, yet research subjects often seemed uncertain themselves about precisely what was denoted by the 'startup' descriptor. I respond to this question, "what is a startup?," before outlining the field site, recruitment techniques, and the three main methods I utilized, interviews, participant observation, and discourse analysis.

Chapter Two: Methods

In this chapter I begin by describing and analyzing an epistemological problem that often framed the conversations I had with research subjects. Subjects' anxiety around the question of precisely what a startup was, how to define it, and when a firm stopped being a startup was important for this research both in understanding the object of study, and understanding that how subjects defined and classified their work (and what was left out of these definitions) had an impact on the work itself. The question of what a startup was held conceptual priority over other similar and relevant questions ("what is a job?" for example) since I came to view the startup discourse *itself* was a direct product of digital media work. The discursive formation of the 'job' is not particular to digital media work, and so interrogating this would have been a much larger task for another project entirely. Workers could attribute a particularly novel status and glamorous cache to startup work, which, contrasted to the banality of other jobs and forms of employment, held substantial importance for them. I then outline the main field site for the study, the South of Market neighborhood of San Francisco, describe the techniques I used to recruit research subjects, and then discuss the three methods employed - interviews, participant observation, and discourse analysis. Throughout discussions of each method I also present some findings from my research where I consider them to methodologically relevant. Finally, I outline how I analyzed the data that I collected.

2.1. The object, or, "what is a startup?"

"What is a startup?" quickly became a key methodological and epistemological question in my research. The term 'startup' held a particular status for research subjects in San Francisco, yet research subjects found the term difficult to define, and the term included a range of possible business practices and working aesthetics. I began to theorize the vagueness that accompanied the term 'startup' as characteristic and strategic, rather than accidental. This vagueness was a way for those who knew the rules of the game to keep them hidden under the 'startup' moniker, thereby maintaining a constitutive and advantageous ambiguity around the details of work, standard hiring practices, salaries, behavior at work, job descriptions, job titles, and so on, for those they hired. In these cases, it was not that working norms were absent, but that they were not necessarily

communicated, which was of course beneficial for those in existing positions of privilege, since they were more easily able to extract surplus value from those not privy to the rules of the game, who, without the expertise that accompanies experience, would be in a weaker position in terms of arguing for a better or different working deal.[1]

This question above became significant because it highlighted a tension between some the practical concerns of empirical research, that is, the need to define and clearly demarcate an object of analysis, and the intellectual concerns of working closely with theory and concepts. In terms of these latter intellectual concerns, defining an object with absolute clarity is difficult because doing so risks disingenuously covering up the messiness, absences, and incompleteness endemic to that which is denoted by a given term (i.e. the supposed 'thing itself' rather then the word or phrase used to refer to it, and the constitutive gap between them), in this case, the constitutive ambiguity absent in given definitions of 'startup' that I note above. These absences that continuously fail in the definition of an object may be more indicative of that object than the definition itself. Furthermore, that which falls out or is left out of the definition of 'startup,' the ambiguities and ambivalence generated by the inability to define an object clearly, may have a positive and productive function.

As Michel Foucault (1978, page 27) writes,

"silence itself - the things one declines to say, or is forbidden to name, the discretion that is required between different speakers - is less the absolute limit of discourse, the other side from which it is separated by a strict boundary, than an element that functions alongside the things said, with them and in relation to them within overall strategies."

For Foucault, discourse is the strategic regulation of the set of things that are sayable and unsayable, in which the unsayable may be just as implicated in the function and communication of power as the sayable. Though Foucault tends to focus on the production of systems of knowledge in the regulation of discourse and subjectivity, as Eve Sedgwick (1990, page 8) rightly points out, "ignorances, far from being pieces of the originary dark, are produced by and correspond to particular knowledges and circulate as

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[1] Startup work is obviously also governed by laws as well as sets of norms, though as I discuss more in chapter five, through the example of the on-demand economy, many of these laws are also sufficiently outdated, vague, and sometimes without established precedents to produce a productive ambiguity (or willful ignorance) that also characterize the establishment and circulation of disciplinary norms.

part of particular regimes of truth." Sedgwick highlights that ignorance, like knowledge, can be constitutive and strategic, and rather than something from which we have emerged, or something that falls outside of discourse. For Sedgwick, building on Foucault's writing, ignorances are produced alongside systems of knowledge. For example, in the case of 'startup,' those silences, ignorances, and absences might be the kinds of working conditions implied by the term - the tiredness and fatigue that goes along with startup work, the forms of self sacrifice it implies, the rules that are only known by some but that form a set of conditions required to play the entrepreneurial game well or at all.

Yet, research subjects continually described *something*, albeit often inconsistently, and sometimes apologetically, that they referred to as a 'startup.' If not a specific object, there was clearly a set of circumstances and conditions that allowed subjects to refer to the 'startup,' in the first place, even if that term failed to itself refer to a coherent object or set of coherent objects. So, though I will also attempt below to outline what the 'startup' meant for research subjects, the question became not, "What is a startup?" Instead, the question better posed became, "what are the conditions that have to emerge for the term 'startup' to be used?" Examining these *conditions of emergence* of a term is a valuable approach because it doesn't impose an objective or truthful status on that which emerges (Deleuze, 1990; Foucault, 1972). This is beneficial because from an epistemological point of view, we can see the 'startup' as not an external standard, but as immanent to the work required to reproduce the set of optimistic attachments that surround it. It also highlights how language and economic practices are interwoven and mutually constitutive (Marazzi, 2007). Instead, the 'startup,' and its whole linguistic economy, the set of partial statements and terms that accompany it, can be more advantageously viewed as a stratification of signification or as a discursive formation (Deleuze and Guattari, 1987). This discursive formation is a technology of power that accompanies a particular model of disciplinary working habits, practices, and performances (Foucault, 1977). The startup then, is better conceived as a particular mode of speaking and acting, as produced and reproduced alongside digital media work itself.

Yet, though clearly more advantageous intellectually and conceptually, such a view is not particularly helpful from the point of view of method, or from the point of

view of practical concerns such as describing to research subjects what precisely I studied and with whom I was hoping to speak. Hence the tension I outline above, and the need to, almost in spite of epistemological convictions, define quite carefully and clearly what a startup is, at least in a way recognizable to research subjects and in order that I might be conversant with them. And, as Shaun French and Andrew Leyshon (2010, page 2557) note, there does remains a critical need to "be able to speak the language of mainstream economics" in addition to the language of academic critique (see also Plummer and Sheppard, 2001; Samers, 2001).

Colloquially then, and outside of the quite specific economic context of high-growth oriented digital media work in San Francisco, a 'startup' refers to the early stages of a small business, irrespective of the kind of business, the product to be sold, or the modes of financing pursued by the owner. Using the term startup to refer to a business might also indicate that the business owner requires a sum of money exceeding their immediate means and is thus soliciting additional 'startup capital,' through bank loans, personal savings, loans from family and friends, or other means. Despite this more general definition, entrepreneurs, venture capitalists, and other digital media workers in San Francisco used the term startup far more specifically. In speaking with general partners of venture capital firms and entrepreneurs who had received venture or other forms of equity financing, it became clear to me that their understanding of 'startup' and even 'entrepreneur' was far more narrow and specific than this general usage.[2]

'Startup' for these subjects referred quite specifically to a firm anticipating fast growth and seeking venture capital or other equity forms of investment. This definition is narrow in the sense that it restricts the common usage of 'startup' outlined in the above paragraph, but broad and ambiguous in the sense that defining a business practice by a particular model of financing elides other important ways of characterizing firms and business practices. Most commonly investment came from venture finance firms, but investment also came from high net-worth individuals ('angel investors'), and investment

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[2] Venture capitalist Jeremy Bussgang (2010) in his book *Mastering the VC Game* continually refers to the 'entrepreneur' in a far narrower context that is implied in common parlance. For him, a business owner pursuing a bank loan cannot be referred to as an entrepreneur. Bussgang instead reserves the word entrepreneur exclusively for those pursuing venture capital to finance their business.

syndicates in which groups of individuals agree to pledge a certain amount of capital if the individual leading the syndicate agrees to do so with the business owner. Importantly, neither the product not the sector were significant from the point of view of defining a 'startup' - so working on a digital media product is not a necessary condition for defining a firm as a startup. Instead the primary feature of the 'startup' is the mode of financing pursued; if a firm pursues venture financing, it can be called a startup.[3] Crowdfunding, personal savings, and loans from friends and family are other common financing strategies pursued by co-founders, and some forms of debt financing may also be used, though these are unlikely to be the main financial technologies through which the startup firm seeks capital. These firms seek fast growth over a short duration, and may not have revenue while they are seeking their initial rounds of investment.

Much of the anxiety around the definition of a startup for research subjects revolved around understanding when a company would stop being a startup under the assumption that a startup denoted something necessarily small or 'at the beginning' and so there must be some point at which a company could no longer appropriately be referred to as a startup. Subjects suggested various metrics and measures to estimate this 'end point,' including the date that the company moves into its own dedicated office space, the number of employees the company has, the number of clients or customers the company has in their portfolio, when they begin to make a profit, and so on. This question is important because of the fashionable cache that accompanies the term startup, as well as the forms of personal investment that surrounds the attachment to the startup as a fantasy of ideal business practices. Being viewed as a startup has a considerable appeal and purchase, and carries a set of glamorous assumptions and ideals that make that firm more marketable to customers, clients, and potential hires.

Despite the potential criteria listed above, entrepreneurs and venture capitalists used solely financial definitions to describe when a company stops being a startup. For

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[3] Yet, venture capital is unevenly distributed by sector along the lines we might expect. In 2015 in the United States, around US$25 billion was invested in 'software' from venture funds (PwC, 2016), a little less than half the total invested that year, around US$60 billion. Biotechnology, another sectorally archetypal recipient of venture capital, came in a distant second with around US$8 billion of investment. It should be noted that 2014 and 2015 have been historically atypical years in terms of the amount invested from venture firms, which has nearly doubled over two years since 2013.

venture capitalists and other financiers, a startup stops being a startup in four main ways. The first and second describe an 'exit' event, which meant either an initial public offering (IPO), that is, the public sale of shares, or the acquisition of the startup by a larger firm. The third was to cease the pursuit of external modes of financing and become a sustainable company with a validated revenue model. Finally, and most commonly, a startup ceases to be a startup at the point of failure. These definitions do not necessarily imply a formal limit case by necessity, and we can look at some outliers and potential limit cases to demonstrate this. For example, a company like Uber continues to be defined as a startup in the popular tech press since it has not yet gone public, and it continues to seek large rounds of investment. Uber is presently valued at US$62.5 billion, and has received US$10.6 billion in investment from various sources since January 2015. Uber is a large company with conspicuous offices in London and San Francisco, and it operates in hundreds of cities. Despite its scale and success, Uber retains the definition of a startup since it continues to pursue venture forms of financing, and thereby a business model predicated on fast growth. On the other hand, from the point of view of financiers and popular media, firms like Facebook and Twitter can no longer be referred to as startups, since they are now both public companies. Facebook began to generate revenue in its first year of operation, and Twitter is currently struggling to generate enough revenue to satisfy shareholders. This indicates that the presence or absence of revenue does not necessarily connote startup status. Conspicuously however, both Twitter and Facebook attempt to retain the glamour of the startup façade with apparently desirable office environments. Twitter's office is located conspicuously on Market and Tenth Street in downtown San Francisco, with a large cafeteria and roof garden.

More then perhaps any other office I visited during my fieldwork, Facebook's Menlo Park 'campus' attempts to procure a fashionable startup atmosphere for their workers and visitors, despite not actually being definable as a startup by industry definition. Most explicitly, the production of a glamorous and luxurious working environment is a strategy to keep workers at the office for longer, to incite work after hours, and to encourage a close proximity between 'on-campus' social reproduction time and working time. Facebook is separated from the rest of Menlo Park, both by geographical distance and physical walls, and entrance to the campus is restricted by

keycard access. Facebook attempts to provide numerous on-campus amenities for their employees (and importantly, not for their contracted cleaning staff, denoted by their grey uniform, and who are not allowed access to Facebook's many perks) including grocery stores, a number of breakfast, lunch, and dinner options, on-site dentist, movie theatre, gym, arcade, and on-site after hours classes.[4] For research subjects, Facebook represented an ideal of startup success (and yet without being able to define Facebook as a startup), epitomizing luxury and working autonomy.[5] Of course, this outlines precisely the kinds of absences and fantasies that structure the definition of the 'startup,' since the popular associations refer to an object undefinable within the definition of 'the startup.' That Facebook is held up as an ideal of startup success, without being definable as a startup, points to precisely some of the silences and ignorances that are distributed by the startup discourse.

In this sense, personal and psychic attachments to the 'startup' as an optimistic object of economic and working success is cruel precisely because that fantastic object refers to the empirical reality of working practices only by a set of absences rather than

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[4] Tangentially, Facebook represents an extreme form of gentrification in the sense that while raising rents in Menlo Park, highly paid employees do not reinvest in the local area by spending a disposable income in local stores since Facebook provides as much as possible for employees on-campus.

[5] One of the most absurd and memorable moments from my fieldwork was during a visit to Facebook's campus. My guide made an implicit reference to the disciplinary regimes of visibility that structure the campus. We were walking through the center of the open-air campus past a room on the ground floor in which a number of people were taking a meeting. The room's external walls were made of glass, and the activity in the room (though not the conversation) was therefore perfectly visible to anybody walking past it. Despite the pellucidity that characterized this room, my guide told me not to look directly into the room at the people taking the meeting. He told me that this was where a number of Facebook's most important meetings were held, and it was not unusual to find Mark Zuckerberg and Cheryl Sandberg in this space. The occupants don't like to be stared at, my guide said, so I should avert my gaze, or at least only glance into the room, and then quickly look away. In this strange scene, I imagined an entire workforce consciously allowing their gaze to slide past this central room in which their employers met and made decisions about their working fates. This reversal of panopticism may in fact have had as similar result in terms of disciplinary function (Foucault, 1977), reminding workers of positions of superiority that they did not yet hold (in broad continuity with early 20th Century ladder metaphors, and Herbert Hoover's 'rugged individualism' of the white collar worker), but which they might be encouraged to imagine as just within reach but only out of the corner of their eye.

actual correspondences (Berlant, 2011; see chapter three for further examples). That is, the startup is constitutively defined by its inaccessibility. The realization of the startup ideal is precisely also its vanishing point. While Lauren Berlant and Lee Edelmen (2014) wonder if it is possible to form attachments that are structured by ambivalence rather than optimism, that are less optimistic, or less cruelly optimistic, or differently optimistic, neoliberal forms of fantasy actively encourage the participation in these kinds of economic fantasies structured by the cruel optimism of attachment to an object that is already lost, or that we never truly 'had' in the first place. Here we can see the iterative performativity of the coincidence between reality and fantasy in the everyday scene of working practices, which as Slavoj Žižek (1989) aptly notes exist in a relationship that is coextensive rather than distinct. To be barred from the realization of the fantasy is also to prolong, sustain, and produce desire for its contents or unattainable object.

So this question, "What is a startup?" quickly gave way to others. Though I have provided here a professional if provisional empirical definition of the startup, I also would like to gather some intellectual distance from this definition and move to an understanding of startup as a discursive formation. Instead of asking, "what is a startup?," I ask instead, "what are the set of conditions that have to emerge to allow the startup and the set of statements and visibilities that surround it to be seen and spoken of in the first place?" Or, put anther way, "how is the startup's appearance of givenness produced?" Other compelling questions necessarily follow from these, and though I have provided some provisional observations here, further details and insight into possible responses to these questions follow in subsequent chapters.

For the rest of this chapter I will outline the details of my fieldwork. I first give a broad overview of the research, and then describe the field site and recruitment strategies. I then discuss in depth the three main methods used - interviews, participant observation, and discourse analysis. In these sections, in addition to describing the methods used, I also present some of my findings, and provide some analysis where appropriate.

2.2. Methods

2.2.1. Overview

I began preliminary research in the summer of 2013, returning to the field again the following summer in 2014. During these two summers I interviewed eleven subjects working for early-stage startup firms. In January 2015 I began eighteen months of fieldwork, which continued until the end of June 2016. Including the eleven interviews conducted during preliminary fieldwork, in total I conducted forty-five interviews with a variety of workers in the digital media sector in San Francisco. Additionally, I attended networking, conferences, and meetup events on a variety of topics and at a variety of scales. I attempted to attend one to two of these events per week, and attended over one hundred events in total. Finally, I also paid close attention to popular news sources and monographs written by authors in the industry. In the rest of this chapter I detail the chosen field site and the procedure for recruiting research subjects. I then outline each method in turn, first interviews, then participant observation, and finally discourse analysis. In these sections I aim not just to outline a procedure, but also disclose research findings where appropriate. Finally I provide a discussion of how I analyzed these data once collected.

2.2.2. Field site

San Francisco, and in particular the South of Market (SOMA) area formed the main site for this research. There remains a significant proportion of startup activity in Mountain View and Palo Alto, though without a car these areas were difficult and time-consuming to access. In the late 1990s prior to the dot com crash, South Park in SOMA between Second and Third Street and surrounding areas was said to be the center of startup activity (Pratt, 2006a), and while this remains largely the case, activity is now also present in the Mission, Mission Bay, Castro, Potrero Hill, the Tenderloin, Belden Place and the Embarcadero, and other nearby areas of the city (see Stehlin, 2015). Startups and larger technology firms such as Twitter, Square, Dolby, and Uber, are conspicuously now located on Market Street near Ninth Street. Others, such as Airbnb, Zynga, Pinterest, and Adobe are located on Eighth and Ninth, close to Brannan and Townsend Streets. These firms are all located within or at the periphery of SOMA.

In this area there are numerous coffee shops, co-working spaces, code schools, accelerators, and incubators that all specifically cater toward startup activity. Notably for the context of my research, since I frequently attended networking at conference events at these locations, these various sites included two WeWork locations (a co-working space), Galvanize (a co-working space and code school), and 500 startups (an accelerator) that are all located in SOMA. Just north of Market Street, RocketSpace (a co-working space) and General Assembly (another code school) formed two more spaces significant to startup work in the city. Many of these locations (especially General Assembly and 500 startups), as well as others, were event sites in which I undertook participant observation, and I used many of the coffee shops in SOMA as interview locations. Early in my preliminary research I made contacts at the co-working space Founders Den, located on Third Street, between Brannan and Townsend Streets. Founders Den was a curious and perhaps idiosyncratic site because, though a co-working space, it was strictly invite-only, charged less than market rate for desks, and only allowed teams to remain in the space for a six-month duration, with some flexibility. Following discussions with the partners and office manager, I was allowed access to the common area at Founders Den during business hours, which formed a primary research site. I often spent afternoons working there, conversing with the co-founders and others working in or visiting the space when appropriate, and occasionally recruiting interview subjects from the startups there. Founders Den also occasionally hosted events in the space, which I attended when possible.

Founders Den is split into two main areas, a common space (already mentioned above) on the ground floor in which people could have lunch, take meetings, or work in a more open environment, and an open plan office space on a mezzanine level with desks. Here teams were assigned a particular workspace comprised of a set of desks in close proximity. A short corridor physically separated the two spaces. A small kitchenette adjoined the common space, but to access the bathrooms workers and others had to walk through the short corridor into the main office area. This meant that though those without a specific working space were not necessarily invited to the main work area in which firms were assigned desks, there was still some traffic between the two areas, and they were never kept completely separate. Founders Den was an interesting space to be as a

researcher, and in the early months of my research it was often a space in which I had to become comfortable being anxious. This discomfort in the first months of research was related to my not knowing how to speak to people, not being able to adequately read and interpret their responses to me as a researcher, and the fear of being unwelcome, or being looked down on as a student and researcher in a space nominally designated for business. As I learned to speak with research subjects, and to feel more comfortable with being or perceiving myself as 'out-of-place,' I eventually came to be more at ease with my presence in Founders Den.

An immediate observation in this space was that teams hardly interacted. This isn't because teams were unfriendly, or closely guarded their products and business practices, but simply because they had work to get on with and appeared to be not especially interested in socializing while in the office. Founders Den directly contradicted the popular mythology of the creative and collaborative worker that thrive on their connection to and interactive with others. Indeed, much of the neoliberal management and urban policy that suggests that creativity and innovation can be cultivated through the creation of collaborative and leisurely public spaces in the city or playful spaces in the office is directly contradicted by the example of San Francisco's startup firms, and by Founders Den in particular. Simply put, entrepreneurs and software developers, at least those that have a clear idea of the unwritten rules and expectations of startup work - those silences and the regime of knowledge and ignorance mentioned above - are not particularly interested in public space, as a concept or an actuality. I would even suggest that these workers do not particularly identify with the moniker of 'creativity.'

Granted, Founders Den was an exceptional space in some regards. Because the startups in the space were specifically invited, there was a perception (whether accurate or inaccurate) that these startups had a higher chance of success than others, since investors who supposedly knew how to tell the difference between a 'bad' or 'good' idea or team had handpicked them. Since the partners asked for less than market rates for desks, and saw the space itself as a relatively private one in which to liaise with business partners and colleagues (who might also be close friends), the space did not conscientiously peddle to the popular image of startup work (on models similar to that of Facebook described above) that many other co-working spaces (such as WeWork)

emphasized. There is less of a focus on the design elements of the space that might be associated with novelty and glamour of startup work. There was no emphasis on leisure or play that many other startup spaces incorporate in attempt to keep workers in the office for longer. Though there was an old Nintendo 64 console in one of the meeting rooms, it was never used, at least as far as I knew. The emphasis and function of the space was overwhelmingly on work.

I conducted interviews in a variety of different spaces across the city, mostly within or close to the SOMA area. Occasionally I would conduct interviews in the East Bay (in Oakland or Berkeley) since a number of research subjects lived there and like myself commuted to the city. Most typically I scheduled interviews to take place in coffee shops, though also in the office spaces of research subjects, especially if they were able to book a meeting room or similar private location. Event locations for the purposes of participant observation took me to different parts of the city, though were still mostly located in the SOMA area, or close to Market Street. Most commonly these events took me to spaces including code schools like General Assembly, and accelerators like 500 startups. Events also took place in larger office spaces, including the offices of Twitter and Couchsurfing. Large events took over locations like the Moscone Center, and the Castro Theater. I also attended the interactive stream of SXSW, a large-scale technology conference in Austin, Texas in April 2016. Mostly, however, my activities as a researcher remained in SOMA and the surrounding areas, with Founders Den and General Assembly as two major focal points.

2.2.3. Recruiting research subjects

I recruited research subjects in two main ways. First, the networking events that I attended for the purposes of participant observation formed a primary location through which to meet and solicit potential interview subjects. Second, through a method sometimes called respondent-driven or snowball sampling (Gile and Handcock, 2010), I asked interview subjects to refer to me others that they thought might be willing or otherwise interested to speak with me. Once I had the contact information of an individual who had confirmed that they were comfortable to be contacted via email, I would send them a message and ask if they could find time in their schedule to set up an

interview. Usually I would contact potential interview subjects on a Monday morning, between 10am and 11am, which, by trial and error, seemed to merit the best results in terms of responses. Often those who I emailed would not reply, and if this were the case I would send a polite follow-up email the following week. Usually I would send two to three follow-up emails before pursuing other potential research subjects, though if the subject in question gave me a specific reason to believe that they were interested (for example, through an affirmative response though without scheduling a time and location) I would send additional emails.

In recruiting research subjects my goals changed over the duration of the eighteen months of fieldwork. At first I wanted to interview anybody working for a startup in its early stages of operation, that is, prior to a second significant round of investment (the 'series B'). I did not want to restrict myself to one kind of worker, for example, the software developer, since, as noted in chapter one, I understood startup work to be constituted by a number of different kinds of workers. Thus I aimed to interview a range of subjects, including entrepreneurs, software developers, designers, operations officers, marketing staff, office managers, contractors, and others. Often the most interesting perspectives came from recent hires, former employees, or those who were otherwise on the peripheries of startup work, including contractors. There are a number of significant groups of people implicated in startup work that I excluded from this study. This included those that were not directly involved in the firm (i.e., they were not employees, contractors, or co-founders) including lawyers, advisors, mentors, and financiers. More conspicuously, other equity-owners and board members who had a financial stake in, and may have had significant impact on the development of the firm, but without direct daily contact were not included in the study.

On four occasions I interview two individuals who at the time or in the recent past were working at the same firm. This was not necessarily a specific goal, though it did reveal some interesting details about the different perspectives of different kinds of workers. For example, I interviewed an older co-founder and young developer working on an event management application for festivals and conferences. The developer was enthusiastic about the project and spoke at length about the long-term goals and potential for expansion. He was excited about the progress he had made with the application and

about the relationships he was cultivating with the rest of his team. On the other hand, the older entrepreneur was clear and frank with me about his desire to sell the application quickly and begin working on another startup. For him, the exciting part of business ownership was only at the beginning, and he said his goal was to start a company once every six months to two years. In this circumstance I wondered how much communication had taken place between the two about their mutual goals and interests. The extent to which younger developers' or others' roles are instrumentalized by older entrepreneurs is an important aspect of startup work, in which those who know the rules of the game are able to profit from the inability of information to circulate through the startup discourse's constitutive absences, or to only circulate between particular subjects.

As interviews continued, I became more selective in terms of who I sought to speak with. This was simply because certain kinds of workers were more accessible to me than others, notably male software developers and entrepreneurial co-founders, and so toward the beginning of my eighteen months in the field, I accumulated an uneven proportion of these individuals' perspectives. Toward the end of 2015 I became more explicit about wanting in particular to interview women founders and co-founders. In a positive sense, this was also a function of getting more of the same comments from interview subjects; interviews with male software developers and entrepreneurs began to feel repetitive, indicating the reliability of my interviews to produce similar results. Though certainly allowing me the conviction that my findings were accurate and methods appropriate, I also allowed this moment to assure myself that there were other perspectives and opinions that were not being represented in these responses.

2.2.4. Interviews

For this research, I utilized semi-structured interviews[6] that aimed to be relatively informal and conversational in tone. I emphasized building trust and rapport in the interview setting, so as to encourage detailed personal accounts of an interviewee's

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[6] Despite the doubt cast by some non-representational theorists on the validity of the interview technique for geographical analysis (e.g., Thrift and Dewsbury, 2000) I am relieved to learn that the interview is still considered appropriate and valuable by writers in critical human geography (Burrell, 2014; DeLyser and Rogers, 2010; DeLyser and Sui, 2014, page 295, who state directly, "the interview is not broken;" Domosh, 2014).

experiences working in digital media in San Francisco (Fontana and Frey, 2005; Longhurst, 2010). To this end, I took some time at the beginning of each interview to talk about the aims of the study, and gain verbal informed consent from each subject, and I also detailed how I would be using and managing the data collected. Verbal informed consent was advantageous in this context, since it bypassed the bureaucratic formalities of written consent, demonstrated to research subjects professionalism and a commitment to ethical standards, and thereby allowed me to build rapport with subjects in the interview setting (Crow et al., 2006). The interviews themselves usually lasted at least forty minutes and often more than an hour in length. Some subjects would not agree to meet with me unless I stated that I would not take up more than thirty minutes of their time, but once sitting face-to-face were happy to talk with me for a longer duration of time. Some quite strictly kept interviews to the stated thirty-minute duration, and in these circumstances, I adjusted the interview plan a little to reach the most pertinent and important questions more quickly. With the verbal permission of each subject, and the acknowledgment that sections of the interview might be used in publications and presentations, interviews were recorded and transcribed.

I planned each interview separately, a process that took around two hours per interview. I found out as much as I could about the subject in question prior to the interview, which was usually relatively straightforward, given the typically significant web presence of individuals and their firms. LinkedIn and CrunchBase proved invaluable online tools in these cases. LinkedIn is a professional social network, on which users upload their professional biographies, work experience, educational background, marketable skills, and so on. I was often able to quickly learn about an individuals' recent employment history through this medium. Because of the fast turnover of employment in San Francisco's digital media sector (since firms often fail, and so the duration of work in any given position may be short) subjects usually kept their profiles on LinkedIn up to date. An out of date profile was indicative of independent success and status, or a longer-term circumstance of employment. In these cases, individuals might not need an online profile in order to procure job offers or maintain an income, or they may not have been seeking job offers in the first place.

CrunchBase is a crowdsourced platform in which firms self-report their funding

status by disclosing rounds and types of funding, as well as the source of funding. Though initially skeptical of a crowdfunded platform, since I assumed that many firms would choose not to self-disclose or that information might be incorrect or out of date, I found CrunchBase a remarkably accurate platform. I confirmed reported funding during interviews where possible, and subjects have not yet contradicted the figures found on CrunchBase. This resource therefore became useful insofar as the styles and modes of work in a startup are closely linked to their financial status, and thus being able to see in advance of an interview that a startup had recently been the recipient of a round of investment, or conversely, that they hadn't procured any capital for eighteen months gave me important clues into the kinds of questions I could and couldn't ask, and the possible emotional state of the interviewee in question. Most interviewee's startups had their own website, and some had a blog or press. Any additional information I could find out about the individual, their work history, and their company prior to the interview was important to me during these planning stages.

During interviews I aimed for a conversational and relatively informal style. To this end, I conceptualized the interview as a negotiated experience, one constructed collaboratively between the interviewer and interviewee (McDowell, 2009; Sin, 2003), and mediated with the context of the interview site (Elwood and Martin, 2000) rather than as something unilaterally imposed on the subject by the researcher. It was also important that each interview retain some structural similarities for the purposes of retaining reliability across each interview. The qualitative and semi-structured interview is an established method in economic geography (Clark, 1998), and following others who've conducted similar research, I usually began the interview by asking research subjects to talk me through their recent employment history (see McDowell, 1997). Though I may have found out many of these details during the planning stages, this opening question was valuable for two reasons. Firstly it was non-confrontational question that allowed research subjects easy access to the interview process. Secondly, one of the main goals of the interviews was to think through not only what was said, the empirical details and contents of the responses, but also to understand how research subjects narrated their own working selves and histories. In this sense, *what* was said was often just as significant as *how* it was said (Dunn, 2000; Secor, 2010; Rose, 1997).

Indeed, though I would often be familiar with a subject's recent employment history, this opening question often revealed details I had been unable to glean, and allowed me to think more closely about how research subjects conceptualized their career path. LinkedIn gives no details about the reasons for leaving positions or the circumstances that led to an individual being hired, and so this first question allowed me a more composite impression of a research subject's trajectory.

The rest of the interview would depend in some part on the individual in question and if I necessarily needed empirical details from them about their firm. For example, in some cases I wanted to know precisely how they measured user activity, how much data they collected, and what kinds of data they would present to investors at meetings and pitch events (see chapter four). Only certain research subjects would be able to answer these questions, usually entrepreneurial co-founders, and sometimes developers, and therefore I could certainly not ask these questions of all research subjects. I asked all research subjects about how their working week was structured, how they did or did not conceptualize the relationships or boundaries between work and non-work, and how they understood the difference between working for a small firm and a larger, perhaps more traditional corporation. I asked interviewees what they valued about startup work, or what they found challenging about it, and, if appropriate, asked them to compare their work to other employment experiences. Some interviewee subjects had never worked for firms that were not startups, which allowed me the opportunity to ask about what other kinds of work they had considered. I also asked interview subjects to think through the empirical contents of their work in comparison to their expectations of work before taking the position.

As interviews continued, it became easier to read interviewees and the circumstances in which they had found themselves. I learned more about the dominant expectations of startup work, how running a high-growth or equity-based business is 'supposed' to function (according again to the positions occupied by financiers) and therefore as the interview process continued, I was able to see more clearly if a business was in trouble, if the co-founders had made 'good' business decisions, and estimate the relative job security of employees. Co-founders, for example, occasionally revealed that they were unaware of the conventions surrounding the distribution of equity, or that they

had refrained from collecting data on user activity for the first months following a platform's launch. Startups sometimes solicited work from contractors without negotiating questions of intellectual property rights, or developed brands without checking on competing claims. Indeed, a major focus of these interviews was to investigate what happens in circumstances of failure, or circumstances in which co-founders wanted to pursue the startup model, but did not know how to do so.

These questions were interesting to me because they demonstrated an attachment to a particular ideal or fantasy of working life, yet without a clear understanding of what pursuing that fantasy might entail. Assessing the gap between a worker's expectations and their experiences attended to those circumstances in which subjects were being let down, and understanding how they developed strategies that allowed for them to negotiate and cope with those feelings. I address these questions further in chapter three, when I develop an analysis of how work formed a system of attachment for research subjects. In paying close attention to how research subjects narrated their working selves, in addition to thinking through what they said, I was able to gain insight into the discursive components of startup work. I'll discuss this more in the following sections of this chapter, and in chapter six, when I talk through how the sharing discourse in the context of the digital on-demand economy is used in an attempt to justify flexible and precarious forms of work.

2.2.5. Participant observation

I undertook participant observation in a number of settings, including conferences, networking and meetup events, as well as in the Founders Den co-working space to which I had access during business hours, and where I would often work, and site visits to the offices of interview subjects and others. These sites, in particular networking and conference events provided valuable (and unexamined in academic accounts) contexts for the production of the discursive frames that structure digital media work (Leidner, 1993; Wilson, 2012). Participant observation is a method that takes into consideration the rhythm of everyday life, patterns of routine, and the habits of research subjects (Crang and Cook, 1995; Crang, 2003; Dewalt and Dewalt, 2010; Herbert, 2000). Allen Scott (2010, page 122) notes that participant observation is a method of "great importance in

the cultural economy," in particular, "where transactional exchanges not only convey information in the usual sense but also help to diffuse attitudes, ways of seeing, forms of emotional responsiveness, stylistic gestures and so on." Participant observation as a method includes a number of activities such as conversing, observing, recording, and in some cases working with or for a firm (Buroway, 1998; Ó Riain, 2010). I strove to take detailed notes on a laptop where possible (Geertz, 2003; Punch, 2012; Watson and Till, 2009). Occasionally events were too intimate to achieve this and it would clearly have been rude for me to take notes rather than (or in addition to) participating in discussion.

In these settings I was particularly interested in how people interacted, how they spoke about their work, and how they spoke to one another. I was interested in the mood of the space, and the techniques used by the organizers, speakers, or participants to create a particular feeling or atmosphere. As I discuss in more detail below, examining 'expected' behaviour at these events is just as valuable as examining behaviour that runs contrary to the dominant set of discursive practice and performances (Hammersley and Atkinson, 2010; Laurier 2010; Laurier and Philo, 2006). If I recruited interview subjects from a particular networking event, I would often use our shared experiences of that event as a way to start a conversation. This was an opportunity to reflect on the constructed character of the networking event, since research subjects variously described how much they hated having to attend networking events, how they were simply happy to be able to leave the office, or that they were genuinely enthusiastic to attend these events.

I attended events on a variety of topics at a variety of scales. These events can be loosely divided into two main categories. The first category of events was those focused on a relatively narrow and standardized set of topics, and targeted the male, twenty-something startup worker, the developer or entrepreneur. These events were often pitch events, panel discussion, and other events focused on common legal, financial, or other concerns startups typically ran into, demo events, or simply social events at bars or restaurants. Topics ranged from data management and collection, advice on building a client base, strategies for seeking investment, the importance of building out a network, mentorship and advising, and so on. These events placed a premium on a particular kind of ideal worker and model of startup success, based on raising money above other concerns, and performing a particular 'compulsory sociality,' that is, an embodied

enthusiasm for oneself and one's firm (see chapter three for more on this topic). The second category of events were those that focused on diversity-related themes, or attempted to discuss, combat, or form a conversation around the whiteness, maleness, and cisnormativity of startup work. These events were organized by a variety of groups including Women 2.0, Girls Who Code, StartOut, Lesbians Who Tech, and many others. Topics discussed at these events were often somewhat more targeted at issues pertaining to hostility and sexual harassment in the workplace, discrimination in hiring practices, and ways to set up alternative social and financial networks, given the 'old boys club' characteristic of investors and co-founders in the sector.

The tenor and affect of events in each category were quite distinct. Participants at mainstream events were typically muted and professional, though also performed a particularly curated and acceptable enthusiasm for themselves and their work. Panel sessions in these more mainstream events were typically male-dominated, and if women were on stage, they were often assigned the role of facilitator, introducer, or interviewer, in roles that were subordinate to the main speakers. Speakers at these events were often at worst brash, arrogant, and overtly sexist, and at best earnest and polite. The prevailing opinion of speakers and others at these events seemed to be that the products they were working on were good for everyone (not just good for affluent smart phone users) and tended to predicate success on a narrow model defined by the amount of money raised and the valuation of a company. As a researcher I found these events difficult and stifling, especially in the early months of research. Attendance at these events tended to carry over the compartmentalization and firm-oriented character of startup work in general, and participants seemed more motivated by the opportunity for personal gain than to meet and engage with others or offer a system of support apart from the stock advise to perpetually raise money and 'fail fast.'

The alternative events attempted to produce a different feeling entirely. These were spaces in which, in contrast to mainstream events, discussing problems and challenges was often the explicitly stated point of the event. Participants were encouraged and able to express dissatisfaction with the dominant model of startup work, and often commented on the particularly normative models of success, on discrimination, on the difficulty or inability to attract funding, and on the inaccessibility of mentorship or other

kinds of networks. Yet, these events were often also oriented explicitly to the generation of positive feeling, which was not necessarily the case in the mainstream events. In these latter events, the prevailing form of expression was a muted but enthusiastic and self-appreciative professionalism. The alternative events celebrated solidarity across difference, allyship, and broadly, the catchphrase at these events was, 'diversity is good for business.' At these events, an explicit goal appeared to be a kind of (sometimes almost sanctimonious) euphoria associated with a perceived defiance toward and refusal of the mainstream, and challenge to the status quo. Indeed, though attempting to retain a critical and to some degree neutral stance, it was often difficult not to get caught up in these euphoric affects.[7]

One clear example of this attempt to produce euphoric affects in spaces of difference was the Lesbians Who Tech 3rd Annual Summit, held in San Francisco between February 25th and 28th in 2016. The first day of the conference was held at the Castro Theatre, with smaller breakout events around the Castro neighborhood. Though nominally a professional event, the first day of the event felt more like a theatrical performance geared toward entertainment, emphasized by the excited disposition of the two MCs and introductory speakers. The emphasis of the introductory video and welcome of the CEO was celebratory, emphasizing the achievements of queer women in tech. Instead of problematizing the hostility and discrimination seemingly endemic to startup work, these speakers took a more positive stance on recognizing the achievements of difference in this context. These events often sought to situate diversity within a linear temporality in which the startup scene would naturally and inevitably move from less diverse to more diverse over time, while drawing on popular metaphors such as the 'leaky pipeline' to emphasize the point that equality was a guarenteed end-point which would eventually be achieved. This framing allowed individuals in the room to feel like pioneers for a progressive tech culture, as the true progenitors of the original utopian and

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[7] This is not to suggest that I attempted to occupy a 'view from nowhere,' through participation observation, but did attempt at these events to produce a critical perspective, which involved some attempts not only to detach myself from empirical circumstances, but also analyze my own affective responses to them, while simultaneously attempting to acknowledge the subjective, faltering, and hesitant characteristics of this detachment (see Haraway, 1991; McDowell, 1992; also Zahle, 2012).

unfailingly democratic promise of digital media work.

The attempt to produce a feeling of euphoric affects in the case of alternative technology events was certainly not universal. Yet, the difference between the euphoric affects of alternative networking events, and the compulsory sociality of mainstream events did not necessarily alter the consumption of the styles of success and modes of working that digital media startups offered. Often, Cheryl Sandberg's (2013) *Lean In* manifesto was taken up as the dogma at these alternative events, in which the Facebook COO invites women to ignore 'external factors' that they have less control over (in my reading, structural and pervasive sexism) and focus instead on 'internal factors' (that is, themselves, and on correcting their own presumably less-adequate gendered performances) to procure a presentation of the self as successful and confident. Rather than directly challenging the established model of business ownership, alternative events often seemed more geared toward aligning social forms of difference with those pre-existing models of capitalist achievement and success. Thus, each kind of event, the mainstream and the alternative, cultivated an orientation towards neoliberal capitalism and normative forms of entrepreneurialism, alongside prescribed and constraining models of success, albeit in different ways.

Another interesting aspect of the diversity-focused alternative events was the focus on authenticity. The academic term 'intersectionality' had percolated into these spaces, while other academic language, for example, Judith Butler's (1990; 1993) notion of performativity, had not. Subjects used the language of intersectionality to express the view that their 'true' or 'authentic' self was not a choice and that it was just as valid as any other expression of subjectivity, in this case and most commonly, the dominant forms of white masculinity reproduced through startup work. In the language of intersectionality mobilized in networking settings, the workplace *should* be a space in which the expression of this truth did not merit exclusion or differential treatment, since it was something over which ultimately individuals had no control. The epistemological strategy, though perhaps antithetical to academic accounts of intersectionality, was to establish a transcendent and essential 'truth,' and to render queer subjectivity merely and passively the expression of this truth. Since truth as a transcendent category should not be penalized (since it is an ideal form beyond the control of any individual), those doing

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nothing more than performing their truthful or essential queerness should not be discriminated against in the workplace setting.[8]

In this light, 'authenic' expressions of queerness were rendered no different from truthful expressions of heterosexuality, thereby evacuating from the former (and the latter) any differential content, that is, making queerness essentially analogous to or the same as heterosexuality and cisnormativity in the context of workplace treatment and activity. Thereby the presence of the queer worker could be tolerated, since their difference is really no difference, predicated on the same authentic expression of truth as the heterosexual worker. Yet, this measure or test of authenticity (based on a presupposed analogy between truthfulness and expression) also allowed research subjects to scrutinize the capacity of others to 'do diversity well' in the context of digital media work. One example of this was in the popular ire at the Lesbians Who Tech Summit directed toward Twitter's diversity officer Jeffrey Siminoff, deemed too white, too male, and too cisnormative to be an 'appropriate' marshal for Twitter's diversity efforts.

I do not intend to suggest here that the concern for Siminoff as a diversity officer is not valid, yet I think that the focus on authenticity, truthful, and 'appropriate' differences demonstrates a sustained commitment to categories and identity politics that actively invites subjects to imagine identity as 'merely cultural' (Butler, 1998) and ultimately a function of sameness, rather than a constitutive component of economic practice, and to ignore the extent to which these 'cultural' aspects of work are imbricated in economic practice (McDowell, 1991). In this sense, enthusiasm for a more diverse office space (important as that surely is) might mean ignoring the detrimental effects of work itself, while instead demanding access for more and more subjects to exploitative working conditions (Weeks, 2011). Moreover, in the neoliberal and institutional versions of diversity talk, as writers like Sara Ahmed (2012) note, identifying and speaking about diversity is often seen as making diversity (or the 'minorities' that are made to speak on diversity's behalf) *into* the problem itself. In this sense, setting diversity targets is a way of identifying some departments and not others as 'problem' departments. In target

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[8] The strategy here is clearly to re-insert a Platonic gloss over accounts of intersectionality, thereby reasserting, however inadvertently, the primacy of sameness and analogy over difference (see Deleuze, 1994).

setting, reaching the target becomes the object and goal, thereby covering over issues of hostility and discrimination, that is, the reasons for which targets were set in the first place.

2.2.6. Discourse analysis

> "The work ethic is a deep discursive reservoir on which to draw to obscure and legitimate processes and logics of racial, gender, and nationalist formations past and present" (Weeks, 2011, page 62).

I used discourse analysis to think through the mutual relationships between language and economic practices, focusing on three main 'texts.' The first two were those collected through interviews and participant observation, that is interview transcripts and notes collated at conferencing and networking events attended for the purposes of participant observation. These texts necessarily exceeded their purely written representations, since I attempted to treat the site or scene of the interview and networking events as texts in and of themselves. Thus the archive from which I drew material for discourse analysis was necessarily extra-textual, in that it included events that I nevertheless attempted to treat as a form of narrative.

The third set of texts included monographs and articles (either online or in print) written by those in the industry, or popular reporters and commentators on San Francisco's digital media scene. These texts included Facebook COO Cheryl Sandberg's (2013) *Lean In*, entrepreneur Eric Ries' (2011) *The Lean Startup*, and books written by venture capitalists such as Jeremy Bussgang's (2010) *Mastering the VC Game*, Victor Huang and Greg Horowitt's (2012) *The Rainforest* and Brad Feld's (2012) *Startup Communities* and *Venture Deals*, and another written by Feld and Jason Mendelson (2013) *Venture Deals*. These texts were supplemented by numerous articles in the mainstream press in publications in *The New York Times*, *The Atlantic*, and *The New Yorker* among others, as well as technology blogs such as *Wired* and *TechCrunch*.

Considering these three kinds of texts together allowed me to think carefully through how research subjects narrate their working selves and lives. As already noted earlier in this chapter, the kinds of meaning research subjects attribute to their work is highly significant. Keywords, partial phrases, nuances of meaning, and turns of signification particular to startup work, borrowed extensively from both capitalist

(particularly neoliberal, but also older working narratives) and technological troping, as well as other forms of conventionality from nationalist rhetoric, to development 'progress' narratives, and familial 'good life' fantasies (Marwick 2013; Massey, 1995; Mejias 2013; Saxenian 1994; Turner 2006; van Dijck 2013). Sexism and other discriminatory language also structure meaning-systems in digital media work, much of which is curious to that work, but some of which is more generally present in discourse and language beyond that work. Indeed, troping and meaning making is often implicitly or explicitly gendered male (Blumen, 2012; Boyer and England, 2008).

These tropes, narratives, and scripts include the 'startup' myth already mentioned in the previous chapter, as well as discourses that valorized failure, emphasized the passion and love required of work, (life) hacking, hustling, sharing, saving the world, democracy, altruism, emancipation, autonomy, and mindfulness. Broader discursive constructions reinforced the categorization of economy and culture, as noted in the previous section, in which the former was broadly conceptualized as a pre-existing totality beyond argument productive of 'market logics' to which we are all subject. The latter was often framed as a more transient problem or problematic, something to be 'fixed' or 'solved.' Workplace culture was important, but chronologically latter than the more serious concerns of a firm, like pursuing capital and building a product. The idea of culture in startup work viewed and produced culture as something that was consciously 'built,' usually around the point at which salaried hires were taken on. Research subjects were often confused if I asked about the 'culture' at work prior to this time, and I would have to specify with questions about how they felt at work, the atmosphere in the office, social engagements with colleagues or co-founders after hours, and so on. Decidedly, for research subjects, a corporate culture was a necessary though superfluous expense, and less important than the serious work of entrepreneurialism, that they viewed as something consciously constructed and over which co-founders had apparently complete control. 'Economy,' however, was imagined as an incorrigible category that, unlike culture, workers didn't see themselves as necessary constructing or in control of, but something exogenous to the firm itself.

As already outlined in the opening section of this chapter, I conceptualized discourse as a regulatory system in which silences and ignorances are as much implicated

in the management of meaning and understanding as what is spoken about and what is known. Understanding the work and the workplace as constituted with and by language was a key approach in this work, and in chapter five I demonstrate this through the example of the use of the 'sharing' trope in the context of the on-demand economy.

2.3 Analysis

Especially at the early stages of fieldwork, analysis proceeded through allowing key themes on particular topics to emerge from interviews, participant observation, and discourse analysis. For example, in terms of the material presented in chapter three, I was looking in particular for themes around the topics of the entrepreneur's relationship to their work and signs of emotional and personal investment in that work, especially when it seemed as though a firm was likely to fail. Themes in this instance included satisfaction with one's work, passion or love of work, and so on. I listened back to interview recordings and transcribed selectively based upon these key themes and important details that I saw emerging at the time. As I listened and re-listened, or re-read transcripts, different themes, meanings and nuances emerged from these texts, especially as fieldwork continued and I was able to relate early interviews to more and more points of comparison. Though I did not formally code interviews or other textual data such as field notes, these dominant themes did change and develop over time, a process that I viewed as one of negotiation between ongoing data collection, analysis, and the continued procurement of relevant literatures (Cope, 2010; Silverman, 2011). Selecting important points for discussion, that is, themes that formed the empirical contents presented in chapters three, four, and five, necessitated some degree of reduction, since the data collected greatly exceeded each chapter's quite specific focus. Discussions of work/life balance, discrimination in the workplace, hiring and firing practices, the production of a corporate culture, and numerous other topics discussed with research subjects or observed at networking and conference events were largely left out of the material I present in the following chapters. Analysis in chapters three and five necessitate a close examination of *how* something was discussed and thinking through the possible constitutive silences and set of accompanying unsayable statements in a given discussion. Material from chapter four on the other hand was more empirical in the sense that I needed specific information

from research subjects about the kinds of data firms collected and presented to investors in the pursuit of capital. Granted, in these circumstances too I also paid close attention to how these subjects spoke about their users' attention to and affection for a platform, which was, as I detail further in chapter four, often in terms at once emotional and quantitative - user 'love' or 'attachment' was necessary, but so were data that measured retention or sheer number of users.

In early interviews and participant observation, allowing themes to emerge was important, though these themes were necessarily influenced by literature that I had already read, both academic and popular. It is rare, if not impossible, for researchers to begin analysis without any prior framework or set of expectations whatsoever (Schilling, 2006). Thus I had a certain set of existing expectations about the kinds of things I was likely to find out and observe in the field (based upon, e.g., Marwick, 2013; Mejias, 2013; Saxenian, 1994; Turner, 2006; van Dijck, 2013 among many other sources). These existing prejudices were both a benefit and hindrance, beneficial in the sense that I had a frame of upon which to map my findings, but a hindrance insofar as it undoubtedly narrowed the possible set of themes I would be able to identify. It would be more difficult for potentially important details to remain ignored if I did not know to look out for them. The problem became accounting for discrepancies and gaps between popular representations and reported working 'realities' of my research subjects as I began to get a clearer understanding of how startup work is romanticized as compared to interview subjects' experiences. This was not simply a case of suggesting that romanticized accounts were 'false,' but thinking through what those discrepancies meant and how they fell back upon subjects' empirical working practices. Analysis, especially in the material presented in chapters three and five, became a case of close and careful comparative listening and reading to how research subjects talked about their working lives and selves, how they narrated success, how they spoke about their motivations for working, and how they conceptualized their relationships with co-workers, colleagues, their product, and their users.

Working closely with particular discourses - for example, the discourse of 'sharing' discussed in chapter five, necessitated working across each of the three methods used, from interview transcripts, to participant observation at 'sharing'-related events, to

written popular appraisal and criticism of the on-demand economy. In this context, analysis took the form of a close and thorough examination of the different uses of this one term, the terms that often accompanied it, and the context of its usage. I paid particular attention to other key terms, and some of the implications individuals made about them. For example, did subjects use the term sharing to implicate users of social media platforms online, consumers of an on-demand service, or contract workers, or some combination of all three? How did research subjects narrate the benefits of sharing, and what was left out of this definition? Again, thinking through the silences of the sharing discourse was just as important of the contents of a given 'sharing' statement. Often, the laboring content of on-demand economy was blatantly ignored or framed instead in terms of only social contents. Corporate and conservative commentary often framed sharing only in terms that described it as a consumer good. In each method the analysis involved was a close and comparative reading across different empirical kinds of data.

Data collected through participant observation was a little different, since again, in addition to an interest in the contents of the scene of the networking event - the empirical contents of meetups, networking events, panel discussions, and so on - I was also interested in how people felt in those spaces, how they held themselves, how they performed (or 'underperformed,' see Berlant, 2015) aspects of their working selves, how the networking space was created as a temporary performative commodity, and so on. Here I looked too at who was attending these events, for example always counting (or estimating at larger events) the proportions of men and women as I entered a space. At networking events, I took my own feeling to be an imperfect barometer of affect, and attempted to use my embodied experience as a tool for analysis.[9] Analysis in this case posed problems because it would be certain that I (as a researcher and critic) would have a different analysis and interpretation of the *mise-en-scène* of the networking event than my research subjects, yet, I did consider my own feeling to be a valuable insofar as it allowed me some insight into how others might feel (especially others who might also

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[9] Analyzing one's own affective response to a scene is fraught with epistemological problems; it should not be assumed that one is able to unproblematically 'read' one's own affective disposition.

consider themselves 'outsiders' in some respect or another), how anxiety and doubt can be transmitted and passed through subjects, or how positive feeling is communicated in these spaces. Contributing to my analysis of the sites of the networking event, I would ask research subjects in interviews about how they felt about those events. Responses often described feelings similar to my own, though just as often described something opposite, allowing me to think through the relationship between how I felt as measured against how my research subjects might feel - for example, some might share with me feelings of claustrophobia and anxiety, while others might experience that same space in terms of excitement and hopefulness.

Overall, analysis was a process of close reading following the selection of key themes from interviews, participant observation, and popular texts online and in print. The topics around which these themes were examined form the contents of the next three chapters - entrepreneurs' motivations and working experiences, the role of users in the revenue strategies of social media firms, and contract workers in the on-demand economy. Key themes were identified based upon corroborating similar responses to questions in interviews, or similar comments and conversations at networking and conference events. Once patterns began to emerge, it was possible to begin making more connections across different methodological contexts and develop a set of relevant empirical material to interrogate conceptually. What following in the next three chapters is the result of this analysis and conceptual interrogation. In addition to the empirical data collected and analyzed, the next three chapters are based upon the material presented in chapter one, in particular writing in cultural economic geography, post-structuralist theory, Marx's writing, and feminist affect theory. In particular, I think through economic scene of production in the context of digital media work to think through and understand how attachments to particular kinds of work (and not necessarily work that clearly fits into the category of 'waged work') are produced and reproduced. Though not explicitly framed in these terms, I examine in each of the following chapters the question of the cultivation and procurement of a particular working subjectivity - an embodied disposition to or affective orientation toward the extraction of surplus value. Underlying the material presented in each chapter is the set of problems and questions presented in chapter one,

surrounding why we work in particular ways, and the conditions under which more work and harder work (or volatile, un- or under-paid work, work without safety nets, without leave, without negotiation, etc.) appears to be preferable to demands for less or better work. Throughout these chapters, what is at stake intellectually is the changing empirical and conceptual contents of work, labor, and value, which is closely tied to a practical concern for a nuanced labor politics and the question of economic justice.

Chapter Three: Entrepreneurial affect - Attachment to work practice in San Francisco's digital media sector

3.1. Introduction

> "To be a good subject of neoliberal labor, one has to emit desire and identification with the affective ties of collegiality to make networks of shared obligation seem more grounded and permanent" (Berlant, 2011, page 218).

In this chapter I explore the relationship between entrepreneurship and the affective and passionate attachments that entrepreneurs form to their work. I consider how societal attachments to particular kinds of work are a function not only of the need to reproduce effective methods of capital accumulation but are also psychic investments in the efficacy of those methods over others. As noted in the epigraph above by Lauren Berlant (2011), I seek to theorize neoliberal capitalism as a system of investment, which is at once economic and affective. Affect is here defined as a structuration of feeling, or infrastructure of desire, that is materially produced and circulates alongside subjects and commodities in the workplace. Through this concept of affect, I examine the visceral configurations of habit and desire that might blind and bind workers to dogmatic systems of governmentality by insecurity (Lorey, 2015) that encourage the production of subjects that identify more with productivist ideals than with other workers, unionization, or systems of welfare (Gibson-Graham, 2006). I build on research detailed in chapter two with entrepreneurs and engineers working in early stage digital media firms in San Francisco to examine the emotional geographies of neoliberalism (Cairns, 2013) and consider how work can be a site of subject formation, requiring personal forms of investment in and identification with the mode of production (Weeks, 2011). I link entrepreneurial forms of affect with recent debates on precarity to suggest that the promise of intimacy with one's own personal 'human capital' offers a seductive justification for precarious forms of work.

As researchers on the so-called cultural industries have noted, work in these industries can be characterized as intensive, underpaid, flexible, temporary, and precarious (Gill and Pratt, 2008; Ross, 2008). Yet, cultural work is also often characterized as personally rewarding, satisfying, and glamorous, connoting high status and respect (Marwick, 2013; Pratt, 2002). I suggest that workers' romanticization of 'cultural' and 'creative' forms of entrepreneurial work, and the attachments that they

form to the expected promises thereof are coextensive, not separate characteristics. Through an association with the perceived rewards of entrepreneurial work, ambivalent forms of affect may recast precarity itself as a desirable outcome of work. Entrepreneurialism is, then, the optimistic work of "maintaining an attachment to a significantly problematic object," in spite of that object's potentially toxic effects (Berlant, 2011, page 24).

These attachments are cultivated and developed in the context of entrepreneurial and precarious working conditions that are normalized, valorized, and validated by San Francisco's purported success as a creative and entrepreneurial tech hub (Pratt, 2006a). This celebratory commitment to precarious working conditions as a constitutive component of entrepreneurial success, in this sector and others, has been influential as a neoliberalizing model for other kinds of not-traditionally entrepreneurial work (Brown, 2015; Foucault, 2008; Gill and Pratt, 2008). While other excellent research has focused on the mobility of urban creative neoliberal policy (Christophers, 2007; Peck, 2011; Peck and Theodore, 2010), my focus is on how the desire for and affective attachments to entrepreneurial forms of work are produced and circulated. As algorithms, code, digital and social media, hardware, software, firmware, and data continue to influence our everyday navigation of space - urban and domestic, public and private - the desires and affects that are transmitted and circulate through the work practices of their producers (including entrepreneurs and engineers) become increasingly important to consider.

Hardt and Negri (2000) examine 'affective labor' as a form of work characteristic of late capitalism, accompanied by a distinct kind of knowledge-based, information-intensive worker, including both service-sector work and the 'creative' work in cultural industries. Rather than taking 'affective labor' as an umbrella term to categorize and describe post-Fordist forms of work, in this chapter I consider how affects circulate in and through the workplace to produce and reproduce normative attachments to objects, and, in particular, to work itself. In this sense, I am not making claims about 'knowledge workers' or cognitive capitalism in general as necessarily more or less 'affective' than other forms of capitalism. Instead I consider *how affects function* as a driving force in processes of accumulation, as system of adherence, or orientation to particular modes of production (Ahmed, 2004a) rather than, as in Hardt and Negri (2000), seeing 'affect' as a

characteristic of a kind or type of work. As others have noted, categories such as 'affective' or 'immaterial labor' have too broadly elided real distinctions between different kinds of work (Gill and Pratt, 2008). Indeed, I agree with Deleuze and Guattari (1983), in suggesting that all forms of production, capitalist and non-capitalist, are always imbricated in the circulation and production of systems of desire and affect, though with temporally and geographically specific and differential effects on workers through the production of a social unconscious. Therefore, in this chapter I argue that affect functions through entrepreneurial forms of digital media work to produce and reproduce attachments to normative (and often precarious) working conditions. These affective attachments reinforce a privileged idea about what work 'should be,' and how work ought to be practiced despite potentially deleterious effects on individuals' earning capacity, physical and mental health, and 'life' as a category broadly conceived. The consequences of these attachments to entrepreneurialism reinforce the notion that precarious work is acceptable and desirable and, further, that it should be the necessary default approach to all forms of work.

In the next section of this chapter, I describe digital media 'startup' firms in San Francisco, in complement and contrast to other sectors that comprise the 'cultural industries.' Then, in section 3.3., I make a case and provide evidence for the affective character of digital media work through the examination of three major themes. First, I consider the entrepreneur as *homo economicus* (Foucault, 2008), connoting 'satisfaction' in work provided directly by their own productive capacities. Second, and closely linked to the previous theme on the embodied character of early stage digital media work, I examine 'passion' and 'love' for work as ambivalent affects connected to this entrepreneurial 'satisfaction.' Third, I consider how social interaction is enforced through networking practices that keep people at work when out of the office through forms of disciplinary socialization or 'compulsory sociality' (Gregg, 2010). Finally, in section 3.4., and reflecting on the material presented in the previous section, I engage with the contemporary debates on precariousness and precarity to examine entrepreneurialism's role as an affective regulatory mechanism, producing attachments to normative work ethics and values, through its elision of clear distinctions between 'work' and 'life' (Weeks, 2007).

3.2. Digital media work in San Francisco

Digital media work in early stage firms usually consists of small teams of one or two founders. Firms starting out need at least one software engineer or technical founder, as well as an entrepreneurial founder managing the business and development aspects of the firm. In some cases, individuals with both sets of expertise act as the sole founder. Firms in this sector build digital applications for the web or for smart phones and tablets. These applications include (though are not limited to) social and locative media, video games and gamification add-ons, business-to-business products, on-demand or 'sharing' (see chapter five) and e-commerce platforms, and software as a service. Cofounders typically leave full-time employment to pursue the development of their own firm and a working prototype of their product, working unremunerated for the prospect of equity while they self-fund by living on savings (or 'bootstrapping'), either through personal wealth or contributions from relatives and friends.

Startups are usually not taken seriously by investors unless their founders are working full time on their firm and product. At early stages, engineers and entrepreneurs' main tasks involve developing their product, building a client or user base, and seeking funding from angel investors, venture capitalists, or from crowdfunding sources, which may be accredited investor- or user-driven. If firms are successful they will attract funding and expect to grow quickly, meaning that they will have to professionalize and build a corporate structure. Startup work at this stage is notoriously uncertain, extensively time consuming, and stressful (Marwick, 2013). Some entrepreneurs told me that it was not uncommon for them to work twelve to sixteen hours a day, six days a week during the fund-raising stage of their firm, with no guarantee of success.

The 'cultural industries' denote a variety of creative and artistic forms of work associated with the production of 'culture' including television and film (Hesmondhalgh and Baker, 2008), fashion (Wissinger, 2007), advertising (Pratt, 2006b), and music (Hracs and Leslie, 2013). While digital media work arguably is included in this definition of cultural industries, there are a number of discrepancies that set this work in San Francisco in particular apart. Other kinds of cultural work, though becoming more entrepreneurial, less dependent on union organizing, more flexible, and contract- and project-based (Perrons, 2003), still depend in large part on existing, often corporate-

owned infrastructure such as production and design studios. In contrast however, most startups that work entirely on digital products do not require access to existing production or design studios (Pratt, 2006a). Many studies of 'new media' have focused on 'project work' (Christopherson, 2002; Gill, 2009; Grabher 2004; Jarvis and Pratt, 2006; Perrons, 2003; Pratt, 2013) as a way to deemphasize an essentialist economic emphasis on the firm as a privileged unit of analysis, and to highlight the increasingly precarious character of this work, defined as temporary and freelance-worker driven. However, I suggest that the notion of the 'project' does not adequately articulate work undertaken in San Francisco in digital media startups.

Startups remain oriented around the life cycle of a firm, which does not begin or end with a particular 'finished' product defined by a single 'project.' A product must continue to evolve and change as the firm itself grows. The life cycle of a startup is 'complete' when the firm fails to attract funding, is acquired by a larger company, or the firm no longer seeks speculative investment and high growth by validating a 'sustainable' revenue model. Though the focus on the 'project' does not adequately define media production in San Francisco, I seek to retain the people- or worker-focused approach that benefitted project-based studies (Perrons, 2004) through a small-scale examination of entrepreneurial affect and embodiment and in the workplace (Ettlinger, 2003, 2004; McDowell, 2015; McMorran, 2012). Acknowledging the progress and importance of a 'firm' as the focal point of digital media production should not be mistaken as an attempt to suggest that digital media work is less unstable, temporary, or ephemeral than a project-based focus on new media. While the firm remains one of the central legal and economic structures organizing digital media work in San Francisco, its potential to act as a determinist or essentialist component is undermined through the entrepreneurial coincidence of self and enterprise, and the continuing importance of and dependence upon personal social networks.

San Francisco itself provides a geographically specific example of digital media work, distinct from other current and emerging hubs in the United States such as Seattle, Boulder, Oakland, Austin, Chicago, and New York. The proximity to Silicon Valley is significant, providing already existing access to capital specifically directed toward investment in early and later-stage software startups. In 2014 alone, venture capital firms

in the Silicon Valley made investments of over US$13 billion in software, more than half the total amount invested nationwide (PwC, 2015). Silicon Valley remains home to many high profile and large corporate technology firms (including Oracle, Apple, Cisco, Google, and HP), providing a network of knowledge and support in terms of professional advice and mentorship, as well as legal and financial services with technology expertise. Firms such as Facebook that style themselves as 'startups' despite having validated revenue models, campuses of their own, and successful initial public offerings produce an affective promise of what 'startup success' and startup work *should* look like. The proximity to Stanford University also bears comment, providing startups in San Francisco with access to cheap forms of engineering and entrepreneurial labor, as students and recent graduates are often willing to work cheaply, for equity, or as unpaid interns.

Turner (2006) describes how Silicon Valley and San Francisco's recent histories relate to the complex emergence of forms of technological utopianism that celebrate both the heroism of the liberal individual and generate popular imaginaries of 'personal' and intimate computing as necessarily egalitarian, horizontal, and democratic. The evolution of computer production in the second half of the 20th century fed neatly into discourses reinforcing the primacy of Western development narratives, simultaneously appealing to both libertarian principles on the right, and the evolving counterculture on the left. This 'Californian Ideology' continues its long and influential history of purporting the beneficial and revolutionary potential of technology. More than just "an incubator for newborn technologies," Silicon Valley also incubates new forms of social organization and "cultural philosophies" (English-Lueck, 2002). Today the sector's 'disruption' narratives can be seen as an example of this, often serving as a neoliberal valorization of flexible, precarious, and impermanent forms of work, facilitated by technological platforms including Uber and TaskRabbit, which undermine 'traditional' business, and celebrate the liberal individual as an independent contractor—a form of on-demand, temporary, and poorly remunerated labor.

For these reasons, San Francisco software production provides a unique, though surprisingly underexamined setting for studies relating cultural work in the form of software or digital media production to the concepts of affect (as a system of attachment, orientation, and circulation, rather than a generic characteristic of post-Fordist

production) and precarity. Due to its proximity to capital, recent and continuing history of technological utopianism, and relative independence from corporate infrastructures, entrepreneurialism thrives as a normative form of precarious work, serving as a benchmark for other emerging technology and cultural hubs and, as I argue in this chapter, work in general. Having in this section introduced and contextualized digital media work in San Francisco, I move now to discuss in the next section how affect functions in digital media work, through the embodied figure of *homo economicus*, passionate attachments to work, and compulsory forms of sociality at networking events, which facilitate the devaluation of spheres of life that do not pertain directly to work.

3.3. Entrepreneurial affect

3.3.1. Embodying work and entrepreneurial satisfaction

Entrepreneurs and cofounders that I spoke with often displayed anxiety about the possibility of having to work for others.[1] These anxieties were articulated with a related fantasy of being in control of one's own means of production. One interviewee asked, "while I'm generating substantial results for them [an employer], what would that do if I was generating those same results for myself?" This interviewee communicated the assumption that entrepreneurial work necessarily places the individual in control of their means of production, leading to an unalienated form of work and resulting in greater degrees of working satisfaction (Hope and Richards, 2015). Structurally of course, this is not the case, since rounds of investment divide the control and ownership of a firm between cofounders, venture capitalists, and other potential stakeholders, rendering the entrepreneur not only accountable to themselves, but also to the capitalists who expect a substantial and expedient return on their investment. Despite the political economic reality necessitating the inevitability of the entrepreneur's alienation from their labor, the attachment to an idea of unalienated labor resulting in personal "satisfaction" is a powerful and productive fantasy.

In this section, I suggest that entrepreneurism in its very definition is the

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[1] Though I interviewed and spoke informally with a range of workers in startup firms at a variety of stages, I predominantly focused on cofounders (usually entrepreneurs and engineers) working at early stage firms in small teams.

production of an intimate attachment to this aforementioned fantasy. I examine the entrepreneur's attachment to the embodiment of their work, an attachment that is located in and justified by "satisfaction" (Foucault, 2008) of which the productive capacity of the entrepreneur is imagined to be the lone source. "Satisfaction" erases the necessity for clear distinctions between 'work' and 'life,' as the former becomes the defining and central feature of the latter.

Related to the idea that entrepreneurial labor can be unalienated under capitalism is the understanding that individuals have a personal responsibility to depend on themselves and provide their own means of satisfaction, reinforcing the liberal values of individual sovereignty and personal freedom. The worker appears as an enterprise for him or herself, in which their working skills and capacities are inseparable from their person (Foucault, 2008). *Homo economicus*, the entrepreneur form, is the embodiment of the capacity to work and provide the source of one's own satisfaction. This is not a relationship of exchange between worker and capitalist, but one in which the worker is solely responsible for an investment in their own human capital, their production and earnings as a source of satisfaction for themselves (Feher, 2009). Not only is the entrepreneur both a producer and consumer, but they are also independently responsible for the continuing efficiency of their capacities for production and consumption, for the (re-)investment in their own human capital above all else.

The location of 'satisfaction' in the body and capacities of the entrepreneur was an important talking point for many of the entrepreneurs I spoke with, and a frequent justification for moving away from other forms of work. One entrepreneur, discussing why he started his own business over remaining in corporate work or working for an NGO stated, "the only way I'm going to be *fulfilled and satisfied* is if I'm going to start something that I know is really important to me and that I'm one hundred and ten percent a good fit for." Though some, like this entrepreneur, suggested that other forms of work could provide satisfaction (most frequently charity, not-for-profit, or NGO work), these forms of satisfaction fell short of returns in the investment in oneself that entrepreneurial work promised. Another said, making this comparison directly, "I don't think that I would feel such a *deep sense of satisfaction* [working anywhere else]. It's kind of like when you volunteer for an amazing non-profit organization and you feel you get

something back." "Getting something back" here is framed as the reward for volunteer work; the return is the affective feeling or sense of satisfaction. She continued, "you are gaining from that relationship even though you are volunteering your time for someone else. You are receiving that sort of good soul boost and that's kind of what it is like working here." Satisfaction is a sense of anticipation for the realization of the idea, image, or promise of affect on the worker's body, an ambivalent though productive feeling of anxiety or pleasure located directly in their productive capacities, compelling the entrepreneur to partake in a circuitous repetition of production, which is also a repetition of affect (Deleuze, 1988).

In the two examples in the paragraph above, even though there is no direct financial reward, these entrepreneurs could still find some "satisfaction" in volunteering work. Yet, satisfaction in this sense intended by these entrepreneurs is not just affective, but also economic, a financial return on an investment made in the self. Indeed, as Donzelot (1991) notes, the important point is not the production of pleasure through work, but the coincidence of pleasure and work, so that they might mutually realize one another. Charity work provides only partial return on the satisfaction that is invested and sought, an affective "good soul boost" without the corresponding financial reward. The colocation of economic and affective satisfaction makes entrepreneurial work for these subjects the most efficient return on investments made in one's own human capital. As another entrepreneur said, "the beautiful thing about startups is that you're investing in them and in yourself as well."

In these accounts, the seductive character of entrepreneurialism is located in the affective and economic sense of satisfaction in one's work, which is also satisfaction in one's self. This idea renders individuals responsible for reproducing their own conditions of exploitation (recast as an ambiguously pleasurable, though consummate experience), a goal that, through the valorization of entrepreneurialism itself, has become desirable in its own right. This desire manifests consciously not as exploitation, but in the satisfaction in one's own heroic individualism, a fulfillment of the promise of liberal sovereignty. Lazzarato (2012) describes how the individual as human capital is premised on the affective qualities of personal trust and guilt. The privileged, indebted subject of neoliberalism is the individual who can repay debts through the value of their personal

promise or guarantee. I suggest that debt and enterprise share these characteristics, since both work on a similar speculative, anticipatory logic, trading on the promise of a productive future that seeks to guarantee the maintenance of present relations of exploitation and (re)turning the potential for future extractions of labor power.

The unwillingness to generate value for others, coupled with entrepreneurial fantasies of autonomy and control, relate closely to a desire for economic and existential freedom, embracing liberal individualism and responsibilization, while valorizing risk, failure, insecurity, and flexibility (Knight, 2013). The isolation of the liberal subject is necessitated by the operations of a social field governed by axes of permanent insecurity and inequality, and of opening oneself up to degrees of risk for which the individual becomes wholly responsible (Lazzarato, 2009). The accounts from entrepreneurs presented in this section reproduce the belief that entrepreneurial work is the only true source of satisfaction, eliding a clear distinction between 'work' and 'life.' Commenting on the absence of this distinction, one entrepreneur said, "I don't need to switch off, because the work that I'm doing is less work, it's more… it's more a passion, so it kind of just merges into everything else." During time assigned to hobbies and relaxation, he said that he would also be "checking email, waiting for an investor to get back on a promising opportunity […] I mesh those two worlds together." If one can only be truly satisfied through affective and economic returns on investments in one's own human capital, 'life' as a domain of unproductive (and therefore inefficient) activity remains a secondary pursuit.

For Foucault, it is not necessarily the enterprise form itself that is at issue, but its generalization and normalization as the dominant standard for economic forms of subjectivity and governance under neoliberal capitalism. Foucault (2008, page 148) writes, "this multiplication of the 'enterprise' form within the social body is what is at stake in neo-liberal policy." This is the production of a default subject position for all workers premised on competition, efficiency, and efficacy, and the belief that one can only truly find satisfaction in oneself though work (Loomis, forthcoming). This logic works beyond economic practices, percolating into other models of governance and forms of life. Indeed, locating economic rationality driven by one's own satisfaction in work as the locus of all 'life' is not only an valorization of the economic productivism,

but simultaneously a devaluation of other forms of political, social, and cultural life (Brown, 2015).

3.3.2. Passionate investments

Closely related to the discussion of "satisfaction" in one's own entrepreneurial capacities of production and consumption was the location of that satisfaction in the affects of 'passion' or 'love' for work. In this section I examine how entrepreneurs discussed their passionate attachments to their work, the significance of the ambivalence of both of these affects, and how this attachment often provided a justification for working longer hours, increased levels of stress and frustration, and heightened degrees of risk and uncertainty.

'Passion' has been described as an ambivalent affective state, defined by a pleasurable satisfaction in one's work combined with the fatigue, anxiety, and doubt that characterize demanding employment situations (Armano and Murgia, 2013). As Ahmed (2010) notes, attachments to an expectation of success or 'the good life,' might also serve as primary sites of ambivalence, in which good and bad feeling overlap. In this affective 'trap' (Armano and Murgia, 2013), the relationship between anticipation and disappointment, intimacy and uncertainty become interwoven, to the extent that they may become indistinguishable from and conflated with one another. In the case of digital media work, for example, the promise of a glamorous and 'laid back' working environment with 'horizontal' employment structures and flexible hours is held as the gold standard of the successful startup. Optimistic promises, which remain unachieved and unachievable by most, serve as generalized incentives to remain unhappy at work, and for work to encroach on life beyond 'work.'

One interviewee, Richard,[2] described a transformation in his attitude toward working in a small company. "If this doesn't work out," Richard said, "we'll go and get a job, and something like that, well now we can't, because we've fallen in love with this." Despite initially feeling like he could simply walk away and seek a corporate job in a larger firm, Richard had developed a passionate responsibility to his coworkers and a form of love for the product they were working on. This feeling of responsibility came quickly into harsh conflict with the progress of his first product, a social media platform

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[2] Interview subjects have been assigned pseudonyms.

that failed within a year because Richard and his team were unable to attract interest from investors. 'Love' manifested in this case as a response to the failure of a demand for reciprocity through an intensification of affect directed toward an already-lost object (Ahmed, 2004b). Richard's attachment to latency through waiting for success could be seen as an attempt to extend his affective and economic investment, an aggressive and opportunistic, though perhaps futile, demand for trust and intimacy, a cruelly optimistic hope for economic and affective appreciation (Berlant, 2011).

Passion and a feeling of responsibility kept Richard and his team going, though with deleterious effects. Richard said that during this time, a

> "full year of our lives, not doing anything, not leaving our rooms, was dedicated to that [social media platform], we watched the sun rise and fall, did nothing else, we lost our friends, […] due to that lack of interaction, and then resurfaced, and didn't get any results. And it was the lowest point we've ever been."

Richard had invested more than just capital in the project; he had also invested a set of expectations that he did not want to give up on by admitting an absence of results. His passionate *attachment* to the platform became a justification for continued production, which became a happy attachment to an unhappy set of circumstances, and an attempt to generate a return for the psychic and economic investment on an already foreclosed promise (Ahmed, 2010). In this account, a failing startup might be incentive to work even harder, allow work to encroach further, and give up more of one's 'life,' to retain an expectation of a return on a psychic and economic promise of success.

Kate, the COO of a pre-series A startup[3] detailed her situation of overwork to me. Her responsibilities at the firm covered everything besides coding and communicating with investors. The tasks for which Kate was responsible included liaising with the financial institution that managed the firm's insurance, hiring new engineers and other staff, attending networking events, procuring clients, and managing the needs and expectations of customers. Kate had left her role as product manager at a large technology firm in Silicon Valley to pursue early stage work and had mitigated her initial impulse to join a later series-C startup because of the particular product this startup was

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[3] Rounds of investment are often described alphabetically by 'series' in startup firms. Prior to 'series A,' firms often seek a smaller 'seed' round. The exact amount of investment sought depends on the particular needs of the firm, though a series A for a software firm is usually between US$2 million US$5 million.

building and the passion she could bring to the earlier stage company, "I probably wouldn't have done that except for the fact that it overlapped so perfectly with my working passion," she said.

Despite the riskier situation at the smaller firm, higher working demands and absent benefits, Kate pursued the earlier stage firm because of her unique qualifications and the passionate attachment that she knew that she would bring to the position. Kate had anticipated the large amount of work in her new role, and now lived four days a week in San Francisco, away from her home and partner in Palo Alto. Though Kate had expected more work, she had not considered "the level of strain that coming to the city puts on me. […] I underestimated how hard it is to sleep in a strange bedroom and hear different noises outside and not see your spouse." Kate had been able to mitigate the negative effects of working for a riskier, earlier stage firm with less benefits and lower pay because of the expectation that a passionate attachment to work would provide her with a proximity to additional personal and emotional rewards.

Through the accounts given by entrepreneurs in this section, I suggest that investment in digital media production cannot be explained solely in economic terms. Systems of affect and desire are immanent to and constitutive components of the economic infrastructure of production (Deleuze and Guattari, 1983). Deleuze and Guattari situate social forces of repression (Marx's spheres of production and social reproduction) as primary in relation to psychic forms of repression. Social forces coopt otherwise productive psychic forces, delegating agents of repression to those psychic systems, and incorporating desire and affect directly into the infrastructure of economic production. This allows Deleuze and Guattari to provide an explanation for attachments to normative or otherwise damaging working conditions both in the home and the workplace. The infrastructure of capitalism works directly upon the unconscious desire of workers, orienting their own exploitation as an appropriate and expected social and professional goal.

These desiring investments in digital media work could be seen through the passionate attachments that workers described. For entrepreneurs, the promise of success, however unlikely, was an investment of desire in which the entrepreneur expects a return. Work is able to become the focal point in the lives of digital media workers, despite

detrimental effects on social relationships, domestic intimacy, and mental health, because it was expected to deliver on a promise of success defined by wealth and status (Gregg, 2011; Marwick, 2013). Instead of knowing precisely where one's satisfaction was located, ambivalent 'passionate' and 'loving' attachments meant knowing how to act and how to appear satisfied. These attachments meant aligning oneself alongside the happily satisfaction of others' purported success, in which "happiness becomes a form of being directed or oriented, of following 'the right way'" (Ahmed, 2010, page 9). Dangerously, this attachment to ambivalent passionate affects as a source of satisfaction was often described as unambiguously positive by research subjects, to the extent that happy attachments to unhappy circumstances resolved in consciousness as 'good feeling' despite deleterious consequences in other spheres of life.

3.3.3. Networking and compulsory sociality

For many entrepreneurs and early stage founders, especially those without established funding structures, networking events provide essential opportunities to meet with angel investors, venture capitalists, or other workers with similar interests and skills. Networking events in San Francisco aimed at startups range from those with emphases on professional development, to those more aligned with social interaction. These include demo-table events, panel discussions, keynote speaker events, workshops, and conferences, 'pitching' events in the style of the 'shark tank' reality television show, happy hours, and parties. Melissa Gregg (2010, page 253) describes the kind of behavior required in offices and of attendees at networking events as a form of 'compulsory sociality,' an enforced conviviality productive of particular forms of subjectivity. In this section, I examine attendance at networking events as an example of how entrepreneurs deploy the embodiment of their enterprise through the kinds of subjectivity they produce as a required extension of their working day.

Sociality at networking events has to be carefully managed, curated, iteratively repeated, and performed by workers to ensure one is making the 'right' kind of impression and performing the 'right' kind of work (Gill, 2010; McRobbie, 2002). Successful entrepreneurs at networking events are expected to convincingly perform their own human capital, demonstrating both their personal capacities for production and their

affective attachments to their work. Affective attitudes that are professionally appropriate at networking events are ones of enthusiasm, happiness, optimism, and hopefulness (Gregg, 2008). Networking events reinforce their own conditions of possibility by excluding affective orientations that are not already aligned with the expected optimistic desires of participants.

The implicitly and explicitly compulsory character of these events was made evident by a number of interviewees. One entrepreneur framed every unattended networking event as a missed opportunity. He said, "I know how hard here everyone here is hustling, and if I'm resting on my laurels and not maximizing every opportunity, every interaction every day, someone else is going to." In this framing, any time not spent maximizing the viability of one's firm and oneself was a wasted moment. Though this entrepreneur didn't frame networking as strictly compulsory, his comments implied laziness and a lack of personal responsibility on the part of those who are not always attempting to maximize their economic output through attendance. Other interviewees conveyed to me how necessary and important networking was in their work. One entrepreneur said, "I think the biggest challenge," of being an entrepreneur "would be building out the network. A disproportional amount of success I think here is based upon the network […] you really need to be in the club." This entrepreneur framed networking as a necessary early step for first time founders, to build out their network so that they would be able to more easily use that foundation when starting other firms in the future. Not only is the importance of networking emphasized here, but so is the tacit expectation that good entrepreneurs are repeat entrepreneurs.

Many interviewees disclosed their discomfort and strain at the prospect of attending networking or other social events. "I barely had the energy to go to that event," one cofounder said, when I asked her about the panel discussion at which we had initially met. Others said that they felt trapped into attending social events with work colleagues, such as company retreats framed as 'morale building' activities that were supposedly imperative for a company's development, though also unremunerated and additional forms of work. Not all felt this way however. Another entrepreneur said, "it's not tiring, it's really inspiring," while emphasizing that if his work in the evenings didn't consist in networking, it would only be another form of potentially more demanding work. "My

team is based all over the world," he said, "I have to be able to communicate at any given moment. Just period. So working late is not a thing for me, I'm used to that." This entrepreneur's position was that since he would be working late anyway, he might as well work in a social capacity at a networking event that he found 'inspiring.' Networking in social environments was just another form of work, albeit involving aspects of 'leisure' such as socializing, alcohol, and conversation (McRobbie, 2002). Rather than attempting to delineate distinct boundaries between work and life, entrepreneurs, in their attempt to be 'always on' partitioned work into 'more' and 'less demanding.' This approach minimized and mitigated the strain and stress that entrepreneurs place on themselves, while remaining open to being 'at work' at all times if the need should arise.

Another entrepreneur discussing a typical work schedule said,

"going into the evening, the night time, it's usually going to events, either pitching [their firm] or going and just kind of mingling, trying to find business. This evening I'm going down to Mountain View, Mozilla Firefox has an open demo day going on tonight, and that's until about ten, and then it's back on emails until about midnight."

This entrepreneur drives through rush hour traffic to networking events in Mountain View. If events start at 6pm, he will try and go there early and "sandwich as many things as possible into the day." Because, like this entrepreneur, many develop products that are business-to-business or directly marketed toward other startups, some entrepreneurs are in the complex situation of not just seeking investment at networking events, but also potential clients. If your user base is other attendees, entrepreneurs must also be salespeople, while simultaneously emphasizing programming skills, the social capacity to 'build out' a network, and the professionalism expected of a CEO or cofounder. This highlights the flexible and unstable character of entrepreneurial work and the demand for workers to be able to perform multiple aspects of their marketable and self-satisfying subjectivities at once (Benner, 2004). In these settings, entrepreneurs have only a few seconds to catch the attention of an important investor before their interest wanes and the next in the long line behind them is given a chance. For many, the remote promise of a potentially life-changing moment was sandwiched into that short space of time, a promise reinforced by the occasional stories that lucky founders had been cut checks on the spot by investors.

Networking, as a compulsory, typically unremunerated activity, along with the

entrepreneurs' location of 'satisfaction' in their own productivity through the ambivalent affects of 'love' and 'passion,' represents an erosion of a clearly demarcated concept of a working day, as well as a further breakdown of distinctions between what counts as 'work' and 'life.' As work functions framed ostensibly (though unconvincingly) as social events, the networking event is a temporary performative commodity designed for the affective orientation of attendees' desires, normalizing the additional extraction of after hours and surplus labor time. The behavior and affect of individuals is carefully disciplined in these spaces, though through processes that are often tacit and silent. Attendees' capacities to demonstrate the efficacy of their carefully curated, appropriate subjectivities (and the respective merits of their firm's product) were put to the test. They must demonstrate happy enthusiasm for constant work, and reinforce the productive status of failure, while dispelling negative affects from their embodied performances, connoting no sense of anxiety, doubt, or frustration.

In this section, I discussed networking as an economic setting in which workers present appropriate entrepreneurial subjectivities in a form of 'compulsory sociality.' Because of the requisite character of 'building out a network' in early stage startups, networking settings and their participants mutually reinforce cultures of acquiescence and consent to unpaid work in social environments, extending their working day to collectively produce settings in which desire might be said to be directly part of the economic infrastructure (Berlant, 2011). Next, I reflect on the material presented in this section to suggest that affective attachments to entrepreneurial work reinforce normative expectations of and investments in neoliberal, precarious forms of production. At the same time, entrepreneurs themselves, in many cases considered the privileged subjects of neoliberalism (McDowell, 2004), are able to provide themselves with personal forms of security, a standard of self-responsibilization impossible for the majority of precarious workers.

3.4. Precarity, precariousness, and in/security

In the previous section, I discussed how ambivalent affects such as 'passion,' 'love,' and 'satisfaction' circulate through entrepreneurial forms of digital media work. Here I examine the possible consequences of entrepreneurs' prioritization of their working lives

over other forms of life, considering the attachments to precarious work that entrepreneurialism valorizes. Following Deleuze and Guattari (1983) I suggest that thinking through how desire and affect circulate in forms of economic production provides a way to understand how particular kinds of work and their potentially repressive effects become normative.

Precarity has been understood in a number of valences, as a political concept (Neilson and Rossiter, 2008), an economic concept (Standing, 2011), or as an affective and existential concept (Butler, 2004). Precarity is often understood as a temporally specific condition, some arguing that the 'precariat' is the neoliberal economic or post-Fordist class equivalent of the proletariat (Ross, 2008). Precarity, as associated with an economic condition, and often with 'creative' work in 'cultural industries' (Gill and Pratt, 2008), connotes the normalization of temporary contracts, un- or low-paid work, the lengthening of the working day, and flexible work schedules, as well as the erosion of the provision of welfare and support structures, provision by one's employer or by the state (Hesmondhalgh and Baker, 2010). Writing with a specific focus on precarity in digital economies has been instructive too for a focus on how the management (and not necessarily the abatement) of economic insecurity and uncertainty have, at least partially through the diffusion of new technologies and associated working cultures, encouraged the normalization of labor markets characterized by volatility (Ross, 2003; 2009). I add to these contributions in this section through an exploration into the affective and existential dimensions of precarity (Butler, 2004), and how precarity is managed to regulate the category and condition of what is able to count as 'life' and 'work' under neoliberal forms of reason (Brown, 2015).

Indeed, though these writers understand precarity in a number of different ways, here I focus on definitions put forward by Judith Butler (2009; 2011) and Isabell Lorey (2015) among others who define 'precariousness' as a shared ontological condition connoting a common state of vulnerability, and 'precarity' as a social and economic organization of insecurity across different groups, which include the economic dimensions of precarity mentioned above. Finally, these authors define 'precarization' as a mode of governmentality, in which governance is distributed unevenly through a regime of permanent insecurity. This insecurity must be carefully managed, rather than

resolved altogether. As Berlant (2012, page 166) suggests, there are clear affective dimensions of this form of governance, in which "capitalist forms of labor make bodies and minds precarious, holding out the promise of flourishing while wearing out the corpus we drag around." For Berlant, the governmentality of precarity is closely related to the maintenance and attrition of a fantasy of 'the good life.' As Ettlinger (2007) aptly describes, precarity is unevenly managed through the intimate creation of temporary and essentialist illusions of certainty as a mechanism to manage and cope with the stress of the necessary inaccessibility of this aforementioned fantasy, with both personal and national scope. If entrepreneurialism as a set of affects is an attempt to generalize, naturalize, and normalize *homo economicus*, this 'good life' becomes the promise of independence, status, wealth, and glamor delivered by the passionate and affective attachment to a form of entrepreneurial work as life itself.

Entrepreneurialism, as a 'precarious' economic condition related closely to a set of affective attachments to work, serves to justify those experiences of precarity. Though entrepreneurs romanticized 'risk,' quitting their jobs and working long hours under conditions of considerable stress and uncertainty for equity rather than a wage, the most negative aspects of precarious work were substantially mitigated through their own financial and social networks of personal security (Neff et al., 2005). Though precarity and governmental precarization might be increasingly generalized states of neoliberal reason, they have vastly different effects depending on the population in question and their spatiotemporal context. As Waite (2009, page 413) notes, the usefulness of precarity as a concept "will be hollow and of questionable value if it flattens or homogenizes difference." Entrepreneurs celebrate themselves as 'scrappy' risk takers, and though they are in positions of 'precarity,' they make carefully calculated risks that are made 'acceptable' through other forms of personal security, as well as through their passionate attachments to their work. For the vast majority, for whom entrepreneurial and precarious forms of work become 'the norm' by varying degrees, the ability to mitigate risk through personal security may be severely curtailed or absent altogether.

Precarization, as a form of governmentality predicated on the maintenance of permanent insecurity, depends on the formation of the ontological category of 'life,' connecting the governmental aspects of the precarity discourse to ontological forms of

precariousness (Butler, 2009). Life must be first constituted as a category before it can become governable (Foucault, 1978) and as such, attention must be paid to the conditions through which life is able to come to be known as 'a life' in the first place, and how those conditions are subject to systems of maintenance and attrition. As I have argued throughout this chapter, affect and desire function in digital media work to produce ambivalent passionate attachments to one's satisfaction in precarious form of work, allowing entrepreneurs and engineers' work to increasingly encroach on other aspects of their lives. 'Life' as a category qua 'work' is at risk of abbreviation or abandonment, through the processes by which workers become attached to their entrepreneurial or working selves (Weeks, 2011). When categories or ways of constituting 'political life,' so that it might be rendered recognizable or governable, are subsumed under neoliberal definitions, 'life' might account only for those lives that are productive, contributing, and managed efficiently to generate the highest return on one's invested time (Brown, 2015).

Entrepreneurialism normalizes forms of social and economic precarity that, by and large, entrepreneurs themselves are not directly and personally affected by. Further, through the production of intimate systems of ambivalent affect in which attachment to working life is reproduced, there is a danger that under economic forms of neoliberal governance, the constitution of 'a life' becomes directed and dictated by neoliberal reason, to the extent that only enterprising and self-satisfied working lives are rendered fully recognizable by systems of governance. The possible erasure of life by the category of work connotes not just an economic and social distribution of precarity, but also the production of a system that directs and produces the desire for the generalization of such a system, in this case an attachment to the generalization of the entrepreneurial or enterprise-based form of work (Foucault, 2008).

Indeed, many of the entrepreneurs I interviewed and spoke with informally, especially the younger and less experienced, suggested that everybody should at least attempt to start their own business at some point in their lives, displaying an apparent obliviousness to both their own privilege and the many sets of circumstances that might prevent most individuals from quitting their job or starting their own company. One interviewee even suggested, after being laid off twice from jobs in the financial sector, that he had come to view entrepreneurialism itself as a form of security against the risk of

getting fired from corporate work. This view, which was troubling though prevalent, was that an entrepreneurial attitude should be the norm for all forms of work, or the default subjective and affective position of workers, irrespective of the work they were doing.

If precariousness designates vulnerability through the shared dependence on the condition of what counts as *a life* (Butler, 2009), the generalization of entrepreneurial *precarity*, as not only an economic form but also an affective, existential condition, attests to precariousness insofar as what is allowed to count as *a life as such* is only a life managed through affective attachments to work's promises and fantasies. Any social or political promise of security, insurance, or protection is therefore in danger of being extended only to forms of life that demonstrate appropriate forms of personal productivity, efficiency, and commitments to this productivist fantasy. Under these conditions of 'life' as 'work,' the efficacy of this political promise is undermined, becoming instead an economic promise directed instead by neoliberal forms of reason (Brown, 2015).

3.5. Conclusion

In this chapter, I have presented an account of work that examines entrepreneurialism beyond a political economic approach. The workplace (broadly defined), beyond the investment of labor time in commodities as their source of value, is also a location for the production of subjectivities, affects, desires, fantasies, and promises. I suggest that entrepreneurial forms of production also involve *the production of entrepreneurialism itself as a desirable object of neoliberal work*. Or put another way, to fully understand how neoliberal forms of reason and precarious modes of governance become the norm, it is important to consider spaces of economic production as sites for the investment of affect and desire. Capitalism therefore, is not just a system of accumulation, but also a system that both curtails and procures the circulation of affective attachments to particular kinds of work. In this chapter therefore I've argued that the values and affective attachments transmitted through normative and seductive entrepreneurial working practices among digital media workers in San Francisco might serve to normalize and valorize precarious working conditions in general.

Butler (2004) has demonstrated that 'precariousness' can be located in the shared

realization that we are all foundationally vulnerable and therefore have an ethical responsibility for the welfare of others. Other writers on precarity have noted the complex relationships between precariousness, the distribution of inequalities and differences through political and economic forms of precarity, and a system of governmentality based upon the effective maintenance of that system of insecurity (Lorey, 2015). Lorey's acknowledgement of the relationship between precariousness, precarity, and pracarization complicates Butler's (2004) earlier observations. The unequal distribution of economic and political forms of precarity renders some recipients the beneficiaries of insecurity as a form of governmentality. Moreover, considering precarity as a system of ambivalent affects through which attachments to precarious forms of life as work are managed, perpetuated, and valorized, how and why would recipients of uneven forms of precarity come to recognize their shared vulnerability and responsibility to one another?

The answer, perhaps, can be located at least partially in how we consider, understand, and contend with the concept of desire, the development of the unconscious, and the psychic modes through which subjectivity is inaugurated (Butler, 1997). Indeed, taking work as a domain in which subjects are produced and affects circulate is a significant step in understanding the production of neoliberal forms of desire. The maintenance of precarious life as "the condition of being conditioned" (Butler, 2009, page 23) necessarily depends upon a governmentality of insecurity (or, the means of iteratively sustaining said condition) in which some lives become the beneficiaries of the system, while the majority, unable to provide personal systems of security, face systems of temporary and informal employment, speculative, un- or under-paid work, and permanent debt. Meanwhile, the justification for the maintenance of this insecurity is directed, at least in part, by the production of an affective system in which taking on personally responsibility for one's precarious, indebted subjectivity is more highly valued than democratic commitments to social systems of welfare, support, and security. In this case, attention to the psychic production of the subject's unconscious desires, already oriented and aligned toward their mode of economic production becomes increasingly significant (Deleuze and Guattari, 1983).

Considering how life is subordinated to the disciplinary demands of work requires attention not only to the structural legal and economic systems that reinforce that work,

but also the workplace itself as a site of affective investment (Weeks, 2011). Digital media work is a particularly significant example of the need to consider workplaces as systems for the production of affect, because of the forms of utopianism and universalism that technological discourses have a tendency to purport and extend. The promise that digital media can and will "change the world," however disingenuous (and with no attention toward for whom that change might be made) has carried substantial discursive weight now for over half a century (Turner, 2006), managing to line up with promises of horizontality, empowerment, and 'democratization' that have been met with approval among popular and academic audiences alike (e.g. Castells, 2012; Hardt and Negri, 2000). I suggest that in close alignment with these technological fantasies are the forms of work they valorize, which necessarily include normative entrepreneurial and affective attachments to precarious working conditions.

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Chapter Four: Affect and value in the production and 'prosumption' of big data.

4.1. Introduction

Critical commentary discussing the question of precisely how and why big data have value tends to focus either on their epistemological value or ethical value, both in general (Andrejevic, 2014; Burns, 2014) and in the context of their use in academic research (Goodchild, 2013). Yet these inquiries often focus on big data as an already-constituted object, and it is less common for scholarly research to examine the relationship between the production of data, digital forms of labor, and the value of those data (though see Beer and Burrows, 2013; Kitchin, 2014). The response to, or assumptions about big data, too often logical and positivist (e.g. Anderson, 2008), is that they have value because they are seen as unmediated evidence of phenomena and therefore as immediately available for analysis. Yet, as Wilson (2015) notes, big data could be viewed more critically as phenomena themselves, rather than as evidence of existing phenomena. By focusing on how big data are collected, that is, how they are produced, researchers are more likely to critically grasp their ethical and epistemological value, closely connected to their economic exchange-value as in the revenue models of social and digital media (Fuchs, 2014a), in the production of digital subjectivities (Cheney-Lippold, 2011), and in new models of data- and algorithm-driven governance (Amoore, 2011).

The relationship between the production and value of big data has been approached most directly by researchers studying the concept of 'prosumption' and its political economy (Fuchs, 2010). Prosumption is a term used to refer to the merging of the forms of production and consumption in late capitalism (Humphreys and Grayson, 2008; Ritzer, 2014), and as a way to characterize social media use (Fuchs, 2011).[1] Users both produce content in the form of data and metadata, and consume a social media service. Since users are both active producers and consumers of the service and its associated data, they are said to be 'prosumers' of social media (Burston et al., 2010).

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[1] The term prosumption is commonly attributed to Alvin Toffler (1980) for whom it referred to the tendency for previously professional 'productive' economic functions to be undertaken by consumers in the home. While it is not a term that refers solely to social media use, this is the main valence in which I use the term.

However, these studies focus on prosumption as a form of digital labor through a Marxist analysis, data are rarely taken as the object of analysis, and value is assumed to be always and only exchange-value in the revenue strategies of high-profile social media firms such as Facebook and Twitter (Fuchs, 2014b).

Since the function of big data is not always or only to realize economic value in the revenue strategies of social media firms, it is important to ask, still through close attention to their production, what other kinds of value do data have? Prior to monetization, data may also indicate users' attention toward and degree of investment in a platform, thus demonstrating a platform's efficacy as a system of attention capture. The value of big data in these cases can be said to be affective, or 'pre-economic,' as well as connoting a speculative, economic value. Writing on prosumption is useful in this context, and an important compliment and counterpoint to some of the already existing writing on the collection and production of big data, because of the critical links already being drawn in this literature between the production of data and their value. In this chapter therefore, drawing on research with social media firms in San Francisco, I argue that in addition to their function as systems of accumulation, social media and the data 'prosumed' alongside them can be constructively thought as systems for the appropriation and circulation of user attention, or as an affective apparatus of capture.

Affective value, interwoven with speculative economic value, is produced alongside and directly located in the mode of production particular to social media (Banning, 2016). I define affect as a structure of feeling or infrastructure of desire (Anderson, 2015; Berlant, 2011) in which data contributed by prosumers demonstrates a persuasive command over attention, sentiment, attachment, and feeling. Affective structures are coterminous with economic production, which is important given the changing status of value and the commodity in late capitalism that are often informational, emotional, and immanent to, rather than distinct from, the labor-power of individuals (Hochschild, 1983; Jhally and Livant, 1986; Spivak, 1985). In the case of digital media, and other 'watching,' audience-based, and unwaged forms of 'work,' the commodity (e.g. viewership figures or user data) could not exist without the continued attention of users, thus rendering the ability to reliably continue to command prosumer attention a valuable one. Social power and the apparatus of affective attention- capture sit

alongside the previously (and continuing) dominant capitalist technology of surplus value procurement: the wage function. As a technology compelling others to work, the wage has been effective, but expensive from the point of view of the capitalist. Television and social media, through the production of viewership figures and big data models represent an attempt to create different technologies that compel others to 'work,' by creating platforms designed as systems of affective investment, and thus implicating questions of affect, power, domination, and desire in the mode of production. What is at stake in considering big data production in the case of social media from the point of view of both economic and affective value is a more thorough understanding of how neoliberal forms of reason reproduce particular forms of digital work as normative, hegemonic, and acceptable. It means considering how production becomes a 'mode' in the first place, through appropriative methods that are not in themselves solely economic (Deleuze and Guattari, 1987). In this view, early-stage social media firms contribute to the normalization of unpaid forms of labor (Terranova, 2004), the social expectation of the gifting of personal information in exchange for 'free' digital media use under terms that users cannot negotiate (Peacock, 2014), and systems of biopolitical governance undergirded by ever more nuanced systems of calculation and measurement (Crampton, 2014; Leszczynski, 2012).

In the next section, I examine how other writers have considered the relationship between the production and value of big data. In section three, I examine how production and value have been rethought in the transition to post-Fordist and digitally mediated forms of capitalism, and take up big data production in the case of prosumption to detail how writers such as Fuchs currently theorize user-generated content in terms of Marx's labor theory of value. In section four, I extend these discussions to consider how prosumers create data for early-stage social media platforms that are prior to or entirely without the realization of economic value. Drawing on interviews with entrepreneurs in San Francisco's digital media sector, and through the writing of Ernesto Laclau and Chantal Mouffe (1985), I suggest that early-stage social media 'startups' are speculative (unrealized) systems that seek to produce affective circuits for the capture of user attention and data. In this sense I locate affect directly in the infrastructure of economic production, in which affects and the economic are interwoven and mutually constitutive.

This affective value is not-yet exchange-value from a Marxist perspective, and distinct from speculative value, yet is by no means incidental to economic production, and can be viewed as an initial form of appropriation or affective 'capture' upon which production must be predicated.

4.2. The production of big data

In this section, I examine research on the production of big data, pointing to how different conceptualizations of production affect our understanding of the value of big data. Kitchin (2014) describes three main sources of big data. 'Directed data' are forms of surveillance such as the national census, CCTV, and information collected for taxation purposes. 'Automated data' describe the ambient collection of data as an annex to other activities, including the internet of things, RFID tagging, smart meters, supermarket 'loyalty' cards, and other 'logjects' (Kitchin and Dodge, 2011). Finally, 'volunteered data,' are collected through user contributions, including social media sites, and crowdsourced projects such as OpenStreetMap and Wikipedia. Prosumption falls into this latter description of volunteered data, but is also included in the category of automated data, since a great deal of metadata are collected in excess of cognizant user contributions.

Thatcher (2014), drawing on empirical research with designers and developers, puts forward the concepts of 'digital footprints' and 'digital fumes.' The former refers to data collected by actions and behavior already being undertaken to which a 'layer' of active or passive digital observation and recording is added. The latter refers to data collected through the use of digital applications, accounting for the activity of prosumption that fits between Kitchin's 'automated' and 'volunteered' data as described above. Thatcher's 'footprints' and 'fumes' imply a more personal dimension to big data collection and production than Kitchin's above distinctions, while they also highlight the epistemological problems and dangers inherent in treating the selective data-traces of subjective human activity as objective arbiters of worldly phenomena. Thatcher's terms emphasize the excessive and potentially invasive, subjective qualities of big data and their collection.

Within these distinctions - locating prosumption between and including

'automated' and 'volunteered' big data - there remains great variety to social media use and prosumption in terms of the production of big data. Discussions from the point of view of big data analyses are, I think, better placed to make this point than those discussing the value of prosumption, which, as I examine in the next section, tend to have a Marxist, production-oriented focus, usually examining only 'authoritative' and highly successful examples such as Facebook and Twitter (e.g. Fuchs, 2009). Various forms of digital labor exist beyond examples pertaining to social media use (see Irani, 2015; Lehdonvitra, 2016), and because of this economic analyses of prosumption that focus only on social media elide important differences between this and other forms of digital prosumption.

Beyond social media, David Beer and Roger Burrows (2013) attempt to schematize different kinds of digital data 'archives' into four main categories, all produced, at least in part, through the activity of prosumption. 'Transactional archives' include online stores such as Amazon and Spotify, which collect automated data through search and purchasing functions, allowing these sites to target advertising, build user profiles, and select for users products they may want to purchase. 'Archives of the everyday' include 'confessional' social media sites such as Facebook and Twitter. 'Opinion' or 'viewpoint archives' include blogging platforms and individually hosted blogs, which tend to be single-authored, journalistic and long-form. Finally, 'crowdsourced archives' are volunteer-driven, freely editable sites such as OpenStreetMap and Wikipedia. In this latter example, users contribute data, the site's main content, and metadata through the creation of tags that enable their content to be more accessible to others through the site's search function.

Despite Beer and Burrows' schematic, there is overlap between the four categories they outline and there are many digital forms of labor that escape these categories. Comment, ratings, and review systems percolate through all four categories, as do games and gamification. Some digital media models that pertain directly to revenue generation such as subscription, direct payment, and 'freemium' services, depend upon paid clients and customers, rather than, or in addition to the unpaid contributions of users. Additionally, the extent to which spatial 'check-in' based social media such as Swarm and Foursquare, dating or hook-up applications, and 'on-demand' transactional media

(such as Uber and TaskRabbit) fit into the archives mentioned above remains open for debate. Though Beer and Burrows are not making an economic intervention per se, and therefore leave the question of non-economic definitions of the value of big data open, their discussion reinforces the facts that (1) big data collected through digital prosumption is not a unified or singular activity, and (2) any attempt to discuss the value of big data (however the term 'value' is defined) must account for different kinds of digital media use and production. Social media, the example I take in this chapter, is defined as only one particular kind of archive in Beer and Burrows' model; thus, alternative, perhaps platform-specific explanations (Barreneche and Wilken, 2015) of value must be given for the collection of data involved in the production of other kinds of digital archives.

Mellissa Gregg (2015a) conceptualizes the production of big data from an affective point of view, through the material and somatic notion of 'data sweat.' This term highlights the relationship between data and the digitally augmented body, the latter seen as an excessive, leaking entity, unable to completely control the porosity and permeability of the data that serves as evidence for its motility. Data sweat is a sign of vitality that defies attempts at bodily control or curtailment, subtle evidence of the body's presence, and an unwanted secretion that leaves a trace that can be measured, read, collected, organized, and aggregated. Gregg draws attention to the almost incontrovertible injunction for participation in a digital economy. We cannot always choose, spatially or temporally, and we do not necessarily have knowledge of all the data that we 'sweat.' Gregg (2015a, page 45) underlines the relationship between the materiality of data production as an ambient or unknowing form of labor through her use of the term "sweat equity" denoting the lack of control over our own digital labor. Data have become the visceral sign that our bodies are perpetually, persistently, and permanently at work (albeit only barely) in a digital economy. At stake in this claim is a conceptualization of data as having value in terms of how we think about embodiment, subjectivity, privacy, democracy, governmentality, and participation as much as economic value.

Big data produced or 'given' through prosumption are typically unstructured data and require sorting, cleaning, and aggregating. As I shall outline, this point is particularly

contentious from the point of view of their economic value - do unstructured, unsorted raw data have value prior to their management and organization? The implications of this question are not restricted to the economic value of data, but extends to the status of the user's unpaid labor, and the question of their 'exploitation.' In big data research, the question and definition of 'value' is generally treated far more capaciously, and with far more ambivalence and ambiguity than in the debates surrounding the topic of prosumption. In academic discourse on big data, value is a question not just of economy, but also of epistemology; affect, subjectivity and power; and of governmentality (Crawford et al., 2015). Value in the case of prosumption is treated overwhelmingly in a Marxist sense, or as a question explicitly for political economy to 'solve.' Before considering examples that point to the affective value of big data and prosumption in digital media firms that do not necessarily realize the value of user 'labor,' I first consider the changing conceptualizations of value in late capitalism. While not exhaustive, particularly on the question of value in general, this research is instructive, since the term 'value' does often imply economic value, and while emphasizing the cultural significance of big data, this should not to undermine their economic import.

4.3. Rethinking the production and value of big data

The inter-determination and mutual constitution of economic with other forms of value (whether they be social, cultural, affective, epistemological, etc.) has been long acknowledged, though not always engaged with thoroughly. For example, Karl Marx (1973 [1867]) insists that value is first and foremost *social* value, and Friedrich Nietzsche (2014 [1887]) outlines the dependence of normative moral values on economic relations such as debt through forms of shame, guilt, and personal responsibility. Gilles Deleuze and Felix Guattari (1983) draw these connections more closely, suggesting that economic production is part of more general production of the social involving the interrelationship of psychic repression with the mode of production. These remarks remain salient today due to the increasing generalization of the debt ('personal credit') as a form of payment (Lazzarato, 2012), the financialization of household savings (Marazzi, 2007) and financial and existential precarity as an emerging regime of governmentality (Lorey, 2015). Berlant (2011) and Konings (2015) critique the concepts of 'exploitation' and

'alienation' as explanations for the class-based oppression of workers by capital, which imply a disaffection of the individual. Instead, they suggest that the capitalism *necessarily* involves personal, social, and affective identification with the mode of production. As Lash (2007) notes, the explanatory concepts of hegemony and ideology have been critiqued through a 'post-hegemonic' language that includes Foucault's (1978) writing on disciplinary power and biopolitics, as well as feminist writing on the gendered division of labor, the economics of affect, and infrastructures of desire (Ahmed, 2004). Capitalism is a system of intimacy that is proximate to, rather than 'disembedded' from the social (Grossberg, 2010a; 2010b), and involves the production of meanings, aspirations, and promises (albeit often cruel and empty ones) of reciprocity and attachment, in which the social and the economic are always interwoven.

The imbrication of social and economic value has become clearer in post-Fordist and neoliberal capitalism (though was no less relevant prior to those shifts), with the growing importance of the financial and service sectors, closely connected in the rise of digital technologies and media. Workers in service sectors often perform 'emotional labor,' as the main component of their work (Hochschild, 1983), and 'commodities' are no longer discrete objects readily distinguishable from the laboring activity itself. 'Commodities' as a form of service are ephemeral and immanent to labor-power, leading some authors to label labor in late capitalism as 'affective' (Hardt, 1999), or 'immaterial' (Hardt and Negri, 2000; Negri, 1999), noting the increasingly informational character of both commodities and the mode of production itself. Yet, these categories have been rightly critiqued for being vague and general, and for eliding real discrepancies between different kinds of work (Gill and Pratt, 2008). The relative decline of industrial production in the global North has complicated earlier understandings of value, and, as with the concept of prosumption, writers have sought alternative explanations for the relationship between production and value (Spivak, 1985). Research has connected value to 'watching' television audiences (Jhally and Livant, 1986), the command of consumer attention (Stiegler, 2010), sentimentality and brand recognition (Arvidsson, 2012), and the 'general intellect,' a communicative and linguistic power immanent to labor (Virno, 2004).

Early-stage social media 'startup' firms working toward big data based revenue

models provide an important exploration into these changing understandings of production and value. Early-stage firms often do not have a validated revenue model or reliable user-base and they depend on personal, crowdsourced, or speculative investor capital to continue development. They have a high likelihood of abatement and failure, or, less frequently acquisition by larger firms. In these cases, and in a similar manner to Sut Jhally and Bill Livant's (1986) analysis of television audiences, we reach the limit of a solely production-oriented analysis, since audience viewership figures and prosumer content are not necessarily or immediately commodities in Marx's (1976) definition. Commodities are constituted by a dual contradiction or antagonism between their qualitative use-value (the socially necessary function connoting the consumers need or desire to purchase the product) and quantitative exchange-value (measured by the amount of socially necessary labor time invested in it by the worker). To be defined as a commodity, exchange-value must also be realized as a form of revenue; a product must be sold on the market and converted back into M', resulting in a return on the initial investment advanced by the capitalist (Marx, 1978, page 391).

Use- and exchange-value presuppose and constitutively require one another, yet are non-transferrable, oppositional, and contradictory characteristics of the commodity. In a social media enterprise, there is no guarantee of either the social necessity of the data 'product' (use-value), or the realization of surplus value in the figure of M' at the point of resale (exchange-value). Though data on user activity are collected, and represent a structural component of social media's speculative revenue model, their immediate use-value at early stages of operation is ambiguous, their exchange-value remains unrealized, and thus their status as a commodity under a strictly Marxist definition is questionable. Since the social media platform's power to command investor capital is based on the continued investment of prosumer surplus-labor, the 'product' is not the commodity for sale, but the guarantee that the platform will continue to command user-attention. Like in the emotional labor described by Arlie Hochschild, dead labor is not objectified in a 'finished' commodity in the case of social media, but instead living labor-power is objectified directly and continuously in a form of production immanent to the data-product itself. Data and the platform retain value only on the condition that users continue to prosume, since a platform without users has a far more questionable set of

use-values for advertisers (thus also making dubious the capacity of that product to effectively realize an exchange-value without depreciation), irrespective of the amount of data already collected.

Despite the mutual constitution of the economic and the social, much of the writing surrounding prosumption and digital labor has focused on solely economic explanations for social media use, such as the applicability of Marx's labor theory of value to the unpaid prosumption of ad-supported social media platforms such as Facebook and Twitter. The tenet of Marx's (1976, page 709) theory that research on prosumption is concerned with is the concept of surplus value, that under capitalism workers are paid less than the actual value of the labor-time they expend. Workers are paid only for the content of time required for them to reproduce their circumstances of work, yet are expected to work beyond that time, to generate a surplus for the capitalist. Employers can only realize a surplus (and thereby generate a profit) if a difference exists between the wage and the actual value of labor-time, that is, if workers are underpaid. In the context of social media, Christian Fuchs (2014a, 2014b) argues that Marx's labor theory of value can be applied to understand how social media firms realize value. In this view, users contribute content in the form of posts, likes, clicks, photo, video uploads, and so on. This content is legally owned by the platform, not the users, which, based on the aggregated contributions of hundreds of thousands of users, can be organized and sorted to produce large data sets, access to targeted portions of which are sold to advertising and marketing firms. In Fuchs' understanding, ad-supported social media makes most or all of its revenue through allowing third parties access to user data at a cost, leading Fuchs to suggest that prosumers are laborers, unpaid for their time spent using social media, alienated from their data, and exploited since the company who owns the platform generates profit from their labor without remuneration.

Writers who dispute Fuchs' analysis claim that he misinterprets the labor theory of value, and has an idealist and totalizing critique of social media use. Edward Comor (2015) argues that prosumer labor is not necessarily indicative of value, since, as noted above, unrealized value is not value, at least in Marx's writing. Since, for example, Facebook's data are sorted, packaged, and made available by the firm's waged employees, and not by their unpaid prosumers, it is this wage-labor for Comor that

produces value, not prosumer labor. In Comor's critique, only packaged big data have value, whereas raw, unstructured data generated by prosumers do not (yet) have value. Others highlight the important role of speculative forms of investment and financial capital in the political economy of social media (Arvidsson and Colleoni, 2012; Jin and Feenberg, 2015). For these authors, value is realized in financial markets rather than through a more straightforward commodity-based production model.

Most saliently, Bruce Robinson (2015) notes the discrepancies between production, circulation, and realization in Marx's analysis - value produced in one time and place may be realized in another at an additional cost derived from the need to circulate that value. Social media firms make money through reducing the circulation costs for advertising and marketing firms, thus realizing value already produced in other spatiotemporal economic contexts. The point is not necessarily that prosumer data do not have value that may be realized, but that social media should be viewed in the broader context of a global economy that consists in economic activities located beyond those solely in the realm of production. These points suggest that Fuchs' production-oriented explanation of value is not capacious enough. Yet, though by no means exhaustive, Marx's ideas have utmost relevance to studies of big data, their production, and their value. User activity as a form of labor remains a significant component in the political economy of social media, and it should be included in explanations, but as one of many revenue-generating factors (Andrejevic, 2015; Banks and Deuze, 2009). Indeed, that prosumer data *can* realize value and be sold as a commodity should not be in question, but that is by no means the whole story in the political economy of social media such as Facebook and Twitter, or other forms of social media in general.

Prosumption and the production of big data through social media use have implications beyond the economic. This is especially pertinent when revenue is not generated and therefore, from a Marxist perspective at least, user-generated data are not commodities and do not have exchange-value. If we suggest that raw data have value that is not only economic, precisely how should we conceptualize their collection and value? Melita Zajc (2015) has noted that user involvement, especially prior to the realization of value might be thought of less in terms of labor and more in terms of subjectivity and interpellation. Therefore, these data have 'value' as evidence of how individuals and

populations are made susceptible to disciplinary power and biopolitical forms of governance (Foucault, 1978). As users become more machine readable, inseparable from the data collected about them, writers like Deleuze (1992) have expressed concerns that individuals will be reduced to 'dividuals,' managed and governed through data-based evaluation and categorization (see also Foucault, 2008).

Data are not just collected to generate revenue, they can also demonstrate the 'attachment' users feel toward a platform, their likelihood to continue using it, and the kinds of behavior that perpetuate through its use. In the next section I suggest a model for thinking through the function of prosumer data that neither depends on their realization of value, nor relegates these data to the status of 'speculative' value, yet is not incidental to their economic function as revenue. Instead I suggest from an affective point of view that prosumption and the collection of user data are indicative of the production of affective attachments to particular kinds of unpaid work.

4.4. Locating affect in the infrastructure of (big data) production

"We wonder though, what else happens to […] data other than it being used to extract value out of personal details" (Beer and Burrows, 2013, page 56).

Early-stage digital media firms collect data to measure user retention, interaction, and engagement, yet user-generated data at these stages do not always realize value if these firms do not generate revenue. Those that I interviewed often said that they collected data on 'everything,' that is, as many measurable facets of user activity as possible, even if only on the assumption that these data might be useful later, though they focused on important metrics that they could quote in pitches, demo events, and other meetings to demonstrate to investors the viability of the firm's platform. In each of the examples of early-stage social media firms in this section, data are 'big' insofar as they are high in velocity and variety, and aim to be exhaustive and fine- grained, but, since the number of users at early stages is likely to be few, these data are not necessarily huge in volume (Kitchin, 2014, page 68). 'Successful' social media firms may receive investment before data are monetized, while unsuccessful firms, though attracting users and collecting data on their activity may fail outright before generating revenue, precluding the characterization of data as a commodity in Marxist terms of use- and exchange-value. In this section I suggest an alternative explanation for the value of data that is not strictly

economic, yet does not contradict economic explanations given above. I suggest instead that these data have an affective value, and demonstrate the capacity of a firm to evoke user-attachment to a product or service, while providing for investors a speculative guarantee, or secure promise of a future return.

Examples of the collection of data prior to the generation of any revenue are common for social media firms, though do not necessarily include 'authoritative' examples like Facebook and Twitter that Fuchs and others discussing prosumption use most frequently. Though Facebook made nearly $400,000 in its first year of business in 2004 (Tsotsis, 2012) this is by no means the norm for other social media firms. Snapchat after two years of operation had received over $175 million in venture funding, yet generated no revenue (Large, 2014). Facebook is an important example because of its sheer number of active users, but it is an extreme outlier from the point of view of the number of firms that are attempting to replicate its high-growth, ad-based social media model. Examining the role that data play in social media firms in general, that is, in examples that could be described as not-yet-successful, failing, or failed firms, and prior to that data's realization of economic value is important both in our evaluation of 'prosumption' as an economic concept, and considerations of what other kinds of value these data have.

Engineers and entrepreneurs working at these earlier-stage firms confirmed in interviews that they were not collecting data to generate revenue. As an interviewee working for company one[2] stated, firms often work through "trying to get big and then figure out monetization." He said in regard to his own firm, "we're measuring a lot of things and setting a lot of targets, but the bottom line is we want 1,000 users when we launch, [and] we want 10,000 users after three months." This entrepreneur had not yet launched his product, but had received an investment of US$200,000, and eventually hoped to generate revenue through a 'freemium' model in which users could upgrade from a free service by paying a monthly subscription. Though this entrepreneur said he was "measuring a lot of things," connoting the variety of data collected, in this case the

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[2] I cannot disclose the names of the firms discussed in this section, since all are relatively small, each with only two or three employees, and thus I will refer to each company by number and provide additional contextual material in footnotes. Company one is comprised of two co-founders developing a dating application.

relevant data for use in pitches and demos with investors were on retention, user growth, and the number of recommendations users sent to their friends to encourage them to also use the application. This entrepreneur and prospective investors were thus not interested in the immediate ability of the platform to generate revenue, but in the collection of these big data demonstrate the number of users his application would have at launch and that their numbers would continue to grow quickly month over month.

Another entrepreneur working for company two[3] considered crowdfunding "as a community building exercise," before talking to investors, "because [the application] is so community oriented it's something people can get behind." Crowdfunding would offer this entrepreneur a source of advertising to generate positive attention for her product, as well as a source of financing. Speculating on the kinds of data she would need when she spoke with investors she said, "we would be showing them […] downloads, daily active users, in this case probably weekly and monthly active users […] some metrics for viral spread, […] all these social validation things." Again, in this case, data would be collected continuously on user activity, but for the purposes of raising money, this entrepreneur would be using particular aspects of this big data model. This entrepreneur was also considering a freemium model for her application, as in the case of company one, but would only be able to implement this model after the collection of big data that could demonstrate, in the entrepreneur's words, "social validation," rather than revenue.

Another interviewee, working for company three[4] suggested that the relevant data collected on user activity were "engagement and retention metrics." He said that while seeking an early seed round, "no one is pressuring us for revenue […] revenue is not going to be our priority, its going to be proving that people love our product." To be able to demonstrate that prosumers 'love' the product, framed in the technical language of "engagement" and "retention," this entrepreneur tracked frequency of engagement metrics using Mixpanel, a mobile analytics service. He collected data continuously on user activity, to see how often the same users came back to the application day-to-day and week-to-week, data that he could include in pitches, demos, and meetings with

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[3] Company two is a social media application with a personal safety component and two employees.
[4] Company three is a location-based social media application with three employees.

potential investors. User retention and engagement were the important metrics in the particular case of his startup, based on the application he was building and the kind of funding he sought. At this stage, these data are not directly translated into a revenue model and the value of prosumer labor is not realized. Data in this case demonstrate, evidence of users' 'love,' (rather than being sold and translated into revenue) an affective measure indicative of the command of user-attention or the desire to return to a platform.

To understand the 'value' of data and prosumption in these cases, an explanation must be sought beyond the strictly economic. Yet, questions of affect, power, and subjectivity as explicated above by Zajc (2015) are of course not incidental to the question of labor and economic value (Hearn, 2010). As Laclau and Mouffe (1985, page 68, my emphasis) note, "[l]abor-power differs from other necessary elements of production in that the capitalist must do more than simply purchase it; he [sic] must also make it produce labor." They continue, "[a] large part of the capitalist organization of labor can be understood only as a result of the necessity to extract labor from the labor-power purchased by the capitalist." For Laclau and Mouffe, "extracting labor" from labor-power, or making labor-power actually produce labor remains a process distinct from the purchase of labor-power. After purchasing labor-power, the capitalist still has to get the worker to do work, and to work in a particular way commensurable with the job at hand. While constant capital after purchase can be set to work immediately, and in a more or less expected and predetermined manner, variable capital, living 'human' labor, must be told how to work, how to conduct themselves while at work, and, perhaps most pertinently, must be convinced to continue selling their labor-power to the capitalist for less than its value. For Laclau and Mouffe, this direction, orientation, and discipline from the capitalist to the worker may incur an additional economic cost for the capitalist. Especially in the perceived or real absence of other employment options, the wage alone may provide enough incentive for an employee to work. Examples of this additional and directly quantifiable cost of getting the worker to work in an acceptable way, following the purchase of their labor-power, include common characteristics of work such as employee training, and the adoption of compliance policies and best management practices. But they may also include subtle ways of encouraging work that are more difficult to quantify, and that fall into an affective definition. These include the

construction of inviting and 'leisurely' working environments (Ross, 2003); cultivating emotional forms of collegiality, identification, and empathy with one's co- workers and employers (Gill, 2011; Hochschild, 1983; McRobbie, 2002); and encouraging workers to conduct their social reproduction time in the office (Fuchs, 2014b).

To bring the example of prosumer activity in early-stage digital media platforms back to the insight from Laclau and Mouffe, we can conceptualize these media as the attempt, through generating systems that encourage affective attachments, in terms of 'social validation' and 'love' for a platform, to direct prosumer behavior. While prosumers generate data for a firm, that firm creates a social media platform to secure the continued interaction of users and generation of data, in order to eventually produce surplus value without the necessity of the costly wage-relation. Yet, despite the absence of a wage, this form of prosumer orientation and digital discipline incurs a direct financial cost, since startup firms spend large amounts of personal, crowd-funded, or investor capital in the development of the digital media platform prior to (and often after) the generation of revenue. The value of data created by prosumers in these early stages is indicative of the firm's ability to command, direct, and retain user attention, and to get users to work in a particular way. Data are used as a form of evidence of the affective attachment prosumers show toward a product. Data are valued as evidence of 'love,' 'social validation,' 'retention,' and 'engagement,' not because (or not only because) they are indicative of present or future revenue. These data are evidence that the startup can compel, and reliably continue to compel users to contribute their labor-power to the firm, and eventually realize that additional surplus value without the necessity of the wage function. The value of these data at these earlier stages is speculative in the sense that they provide a guarantee or promise of a financial payoff, under the assumption that the economic value of user contributions can be realized in the future.

In the political economy of digital media and big data production, it is imperative to pay close attention to how emotional and affective attachments to particular platforms are cultivated or curtailed. An affective attachment to an idea or activity is the willingness to repeat an interaction (Deleuze, 1988), to continue to form that attachment, and to cultivate an emotional proximity to that idea or activity, in this case, to continue producing data. This repetition is indicative of a form of appropriation or capture of

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particular kinds of behavior. Prosumption, at early stages, is not indicative of production in a Marxist sense, but is an initial orientation toward a working, yet unremunerated activity that might provide revenue in the future. Social media use is not necessarily an example of a shift in the mode of production under late capitalism, but in Deleuze and Guattari's (1987) terms, demonstrates the processes by which production is able to become a 'mode' in the first place, through a process of the non-economic appropriation of user activity. As Maurizio Lazzarato (2015) notes, it is inaccurate to conduct economic or other analysis through a linear reading of the capitalist process that neatly begins with production and ends with realization, since production requires and is predicated upon the circulation of capital. Capitalism is a circuitous, reciprocal process involving, the appropriation or capture of particular behaviors through "financial flows that guarantee the subjective investment of desire" (Lazzarato, 2015, page 138). The ability on the part of firms to demonstrate that users return to, are engaged in, or 'love' a product, while not necessarily indicative of economic value in and of itself, is indicative of the possibility of the affective mobilization of an active user-base for the production of surplusvalue in the future. Big data collection and production as an activity of prosumption therefore, may not be a 'productive' activity from the point of view of economics, but may instead be a highly productive one when articulated in terms of social power and as an apparatus of attention-capture.

4.5. Conclusion

In this chapter I have sketched out preliminary observations on how the question of value can be understood in terms of 'prosumer'-generated big data. The concept of prosumption has been important, though has largely retained a economic and production-oriented focus, which, while instructive, has obfuscated some of the broader concerns surrounding the production of big data, such as their ethics, validity for research, the forms of epistemology they encourage, and the affective structures of feeling they perpetuate. While not wishing to de-emphasize the importance of economic concerns, I have emphasized as well the affective value of big data, and, have sought to locate the role of this affective value in the realization of economic value. As I have argued, digital media, especially at its earlier stages demonstrate efficacy as systems designed for the

appropriation and circulation of user attention, or as an affective apparatus of capture, in addition to and alongside their function for the production, circulation, and realization of economic value.

Further anxiety in writing on prosumption relates to the question of if social media users can be considered 'exploited.' Some have argued that exploitation is a difficult framework to apply to media participation since users appear to participate 'willingly' and 'voluntarily' (Arvidsson and Colleoni, 2012) and enjoy or even 'love' their participation online (Hesmondhalgh, 2010; Ritzer and Jurgenson, 2010). I have in this chapter established a link between the creation of social desire for a service or 'capture' of user attention, the inability to negotiate the terms under which that service is used (Peacock, 2014) and the use of data to demonstrate to investors that value might later be extracted from the unpaid contributions of prosumers. In these cases, 'good feelings' associated with ambivalent affects such as 'love' and 'passion' may be better understood as directly indicative or constitutive components of coercion and an attachment to particular kinds of work under certain circumstances, rather than factors that contradict it (Ahmed, 2010; Cockayne, 2016; Weeks, 2011).

More broadly, emphasizing the affective value of big data and their production draws attention to the roles individual and societal attachment. As others have noted, big data have a particular imaginative power that works almost in spite of their often-questionable epistemological value (boyd and Crawford, 2012; Gregg, 2015a). Big data accentuate utopian fantasies about perfectibility of calculation (Thatcher et al., 2016) and perpetuate the old, outdated, and oft-critiqued scientific belief that knowledge can be total, absolute, and apolitical (Haraway, 1991). Digital media too betray related fantasies regarding transparency, democracy, participation, and horizontality. These fantasies are not incidental to economic concerns, and showing how forms of desire and affect are imbricated in the political economy helps us to understand how particular work practices (and not others), unpaid or otherwise, become normalized, justified, and acceptable in neoliberal forms of capitalism. Therefore, in addition to economic analyses of big data production, what is needed is an examination of the systems and regimes through which users feel compelled to contribute content and how entrepreneurs and engineers attempt to create systems through which that content might be more easily elided from the user.

Chapter Five: Sharing, sentimental affect, and neoliberal discourse - the economic function of sharing in the digital on-demand economy

5.1. Shared sentiment

The on-demand or 'sharing' economy[1] is a term that describes digital platforms that connect consumers to a service or commodity through the use of a mobile application or website. Variously referred to as the gig economy (Gregg, 2015b), platform economy (Schor, 2015), and collaborative commons (Rifkin, 2014), the on-demand economy defies a clearly agreed-upon definition, but usually refers to digital media firms that connect users through the creation of two-sided platform-based marketplaces. Early examples of on-demand platforms - including Couchsurfing, Craigslist, and Freecycle - provided not necessarily transactional services. Yet the most highly visible of these platforms now - Uber, Lyft, and AirBnB – promote by definition explicitly transactional user-interaction (Zervas et al., 2014). These firms have been the topic of controversy for their intrusive impact upon existing transit and housing markets, while claiming their difference from these markets because of the digital context of their platforms and the rhetoric of sharing they deploy. Various other digital platforms have fallen under the sharing rubric of the on-demand banner, including short-term car rental services such as Zipcar; user-submitted ratings and review platforms such as Yelp; crowdfunding platforms such as Indiegogo and Kickstarter; and impact, status, and reputation aggregators such as Klout and Traity.

Despite the disparate function of many of the firms listed above, conservative and corporate commentary cite digital on-demand platforms as united under the rhetoric of a new sharing economy defined as "any marketplace that uses the internet to bring together distributed networks of individuals to share or exchange otherwise underutilized assets" (Koopman et al, 2015a, page 2). In this definition and others, technology appears to be framed as what sets these platforms apart from other traditional businesses, labor is

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[1] I use the term 'on-demand economy' synonymously with the more popular term 'sharing economy.' I do this so as not to reproduce the notion that the on-demand economy can be necessarily associated with sharing as such. Instead, I suggest that 'on- demand' better captures the tenor of these emerging digital and platform-based economic systems, while 'sharing' romanticizes broader normative transformations in flexible labor practices to which the on-demand economy contributes.

conspicuously ignored and 'sharing' and 'exchange' achieve synonymy. This definition elides real differences between digital media platforms and ignores distinctions between those platforms that make user labor-power, rather than underutilized assets, available. It is precisely the gaps in the meaning of sharing that I examine in this chapter, in which I conceptualize discourse as not incidental effects of economic practice, but instead as co-produced alongside the mode of production (Konings, 2015; Marazzi, 2007).

The sharing discourse has a real function in the on-demand economy. I draw attention to the linguistic performances of sharing in the on-demand economy to show how sharing exemplifies a potent discursive component of neoliberalism (Richardson, 2015; Springer, 2012). By interrogating discourse we can ask, how does neoliberal capitalism narrate the laboring bodies and practices it inaugurates in order to make them appear conventional and beyond contestation? By demonstrating how the sharing trope powerfully links normative and sentimental affect to an economic practice, I contribute to an emerging affective geography of neoliberalism (Anderson, 2015; Cairnes, 2013) and seek an explanation of how workers' own expectations of their labor as flexible are justified in the context of changing work practices and ethics (Christopherson, 2002; Peck, 1992; 2002; Weeks, 2011).

I define sentimental affect as an intersubjective feeling that promises social inclusion based on the supposed universality of human experience, imagined positively as a form of altruistic solidarity. To define sentimental affect in this light, I draw on Berlant (2008, page 35) who suggests that sentimentality "entails a proximate alternative community of individuals sanctified by recognizing the authority of true feeling - authentic, virtuous, compassionate - at the core of a just world." Put more simply, sharing as a sentimental script frames on-demand work as a site for social inclusion, while drawing attention away from its economic content. By emphasizing the experiences of workers themselves rather than or in addition to markets and capital, this is an account of how flexible or precarious work is reproduced and even romanticized by workers themselves (Peck, 1992), and how workers form strategies that allow them to cope, both emotionally and existentially, with the negative consequences of flexible circumstances (Coe, 2013; Gill and Pratt, 2008; McDowell and Christopherson, 2009; Waite, 2009). The sentimental sharing fantasy locates the promise of 'true feelings' connoting

compassion and inclusion within neoliberal capitalist exchange itself, even though it redefines social participation in a predominantly economic valence (Brown, 2015). The linguistic formation of sharing contributes to the normalization and making acceptable of flexible labor in the on-demand economy.

While holding out on the sentimental promises of sharing, firms such as Uber contribute to the normalization of precarious labor practices by framing workers as contractors rather than employees despite Uber's overwhelming economic control over their drivers. By examining these changes in the context of platform-based economies and online labor, I contribute to cultural analyses of an increasingly digitally mediated political economy (Leszczynski, 2012). The on-demand economy reframes sharing in terms of transactional exchange and convenience for the consumer, justified through an affective appeal to sharing as an altruistic and non-reciprocal social interaction combined with popular technological tropes of openness, transparency, novelty, and disruption (Ettlinger, 2014; Hacklay, 2013; Turner, 2006). I argue therefore that sharing, far from innocently describing a set of qualities particular to on-demand digital platforms, is also closely imbricated in the construction of neoliberal forms of reason.

In the next section I outline the dominant ways in which the term 'sharing' has been used in academic discourse, highlighting where the term is used both sentimentally and unsentimentally. In section three I present evidence from interviews and participant observation with entrepreneurs and engineers working for on-demand economy firms in San Francisco to consider how those producing on-demand platforms understand and re-articulate the sharing trope in new ways. Subjects downplayed the economic characteristics of on-demand work and emphasized its social content by framing sharing as a generative encounter between strangers. They associated sharing with the necessity to quantify both trust and altruism in the sharing practice, reinforcing the need for unevenly distributed and punitive peer-review systems for on-demand platforms. In section four, I critically analyze the implications of conceptualizing labor from the point of view of the sharing trope, as contributing to the normalization of flexible labor. To conclude, I emphasize the necessity for economic analyses to take discourse and affect seriously, as produced alongside the mode of production.

5.2. Sharing in transition - from social to market meanings

Academic accounts and uses of sharing are scarce. The term has not attained a singular sustained technical or conceptual use, nor has a thoroughgoing genealogy of sharing and its various meanings been undertaken. Therefore, in this section I present those uncommon accounts of sharing - across political theory, economic geography, anthropology, and media studies - in which authors have used the term in a technical sense in order to outline both continuity and discontinuity in the discursive use of sharing, and set the groundwork to closely examine what it means for sharing to connect up with a definition of work practice in the context of on-demand digital platforms. In the examples presented here (of democratic practice, carpooling and distributed computing, food 'sharing,' knowledge transfer in corporate settings, and social interaction off and online) precisely how the sharing trope is used and what it means and implies varies. I sketch a conceptual (though not strictly chronological) transition from definitions of sharing associated with (1) common access to public spaces, goods, and principles; (2) private ownership; and finally (3) accumulation and revenue strategies. As Brown (2015) argues of neoliberal forms of reason, sharing's transition in meaning can be classified by the ousting of social values by market values. I also highlight where in these literatures sharing retains a sentimental valence where it stands in for a transformative and universalist promise of reciprocity irrespective of social difference. I thus present sentimental affect - the nostalgia for supposedly more 'authentic' forms of inclusion - as a main mechanism by which this transition from social to market definitions of the sharing discourse occurs.

Dictionary definitions note that to 'share' literally means 'to shear,' to cut (off), partition, or divide. As a noun, to have 'a share' connotes a part allotted through division, sectioning, or portioning. Sharing as that which is divided or partaken in implies participation, inclusion, or social belonging, and sometimes ownership or control. Despite their variety, the uses of sharing outlined in this section all retain this core definition of sharing - as connoting participation and inclusion - since this dictionary definition does not imply the specific form that inclusion should take. Thus sharing as a trope or narrative of social inclusion might (definitively or ambiguously) imply participation in terms of national citizenship, family, alternative kinship forms, community, democracy,

or the economy. This ambiguity is productive, allowing sharing, sentimental or otherwise, to connect dynamically to various forms of social belonging, and offer a transformative promise of reciprocity irrespective of the inequalities and social attrition it might imply. Sharing as a form of participation and more authentic social belonging, however meager or marginal, is sentimental insofar as it implies a universalist principle, that we 'all' can have a part in or be a part of something.

Ferguson (2012) uses sharing in sentimental and universalist terms to describe a form social belonging held 'in common' by a people to describe her concept of 'sharing democracy.' In this use, that which is shared refers less to a 'thing' (i.e., a shared language, national identity, set of institutional practices, and so on) than to a set of shared circumstances, experiences, or activities. Ferguson uses sharing to imply an immanent and performative form of democracy (rather than one based upon representational or based on identity categories), yet sharing retains here its universal, egalitarian, and transformative implication, promising a more authentic social experience yet without accounting for antagonism or disagreement between social groups (e.g. see Laclau and Mouffe, 1985; Rancière, 2004). Though this sharing is predicated upon that which is publically held 'in common' by a people, there is no attention given to how that 'common' might be unevenly distributed. Ferguson, through the use of the sharing trope, thus romanticizes a 'pure' form of democracy.

Similarly, Benkler (2004, 2006) uses sharing to describe carpooling and distributed computing, to characterize both as necessarily nonreciprocal, altruistic, pro-social, and non-transactional. Benkler's use of sharing, like Ferguson's, is ethical and non-economic, with no obvious return for the individuals involved. But, in a key difference between Benkler and Ferguson, sharing for the former is predicated on private property ownership, rather than public social participation in a commons. The assumption of private ownership in Benkler's use of sharing as the uninterrogated medium and minimum for social participation is important because this appropriation is the necessary backdrop of capitalist exchange - an initial step toward accumulation - and thus an important tropic shift in sharing's connection to economic practice.

I characterize the accounts above as romantic and sentimental because they fail to interrogate social difference or private ownership as potentially violent social relations.

These accounts hold out on sharing, albeit in two distinct valences (one public, one private), as an inclusive promise, an optimistic opportunity for reciprocity, but without any attempt to account for the bodies that sharing allows and denies, or the forms of subjectivity it encourages or curtails. In an unsentimental counterexample, Rancière's use of '*partager*' in his key term 'partage du sensible,' is usually translated to 'partition' or 'distribution' rather than a more commonsense translation 'share' or 'divide' (Panagia, 2010). Insofar is sharing might suggest an altruistic or non-reciprocal *equality* between parties, 'share' becomes an inadequate translation, since Rancière's implication is precisely the absence of equality in the production of the social through an act of partition. Contrary again to the examples above, to share or partition the sensible does not imply a necessary division between a public common and private ownership, but is instead the predicate and precondition for the organization of both. Rancière's use of sharing thus does not imply the sentimental promise of more authentic social relations but instead is precisely the constructed quality of a social order that acts to delineate what is allowed to count as legitimate political action across distinctions of public and private. To 'share' the sensible is thus an unsentimental, and often violent determination of who is allowed to participate in, and who is excluded from liberal politics.

Like Rancière, writers in anthropology since the mid-20th Century have been suspicious of sentimental uses of sharing, most commonly in the context of food sharing practices. Anthropologists have argued against accounts that frame food sharing as an essential, egalitarian, and ideal condition of human experience (Speth, 1990). More recent research views food sharing as a form of 'tolerated theft' (Bird and Bird, 1997), or an imposed demand made on the members of a community (Widlock, 2004; 2013). Sharing in these contexts is predicated on the question of ownership better characterized as unequal and reciprocal, though the expectation of a direct return may be informal and without a mutually agreed upon timeframe. Anthropologists highlight how the association of sharing with an essential (and supposed 'primitive') human trait is at best naïve and at worst demonstrates a sentimental humanist prejudice that reproduces a racist, colonialist imaginary (Schnegg, 2015). Despite these critiques, research subjects reproduced popular humanist tropes of sharing as 'primitive,' 'natural,' and more authentic forms of human interaction to which we can desirably 'return' through the

valorization of flexible labor practices that participation in the on-demand economy connotes.

Economic geographers who use sharing to discuss the communication of tacit knowledge in corporate contexts rarely imply equality between parties. Sharing in these contexts tends to stand in for the transfer, production, or reproduction of knowledge. Though there must be some minimum social commonality between parties, this commonality need not imply equality since different groups apprehend shared knowledge differently and with unpredictable effects (Gertler, 2003; Howells, 2002). Here the knowledge shared is not generally conceptualized as discretely 'owned' by any party and neither is it considered a strictly public good, yet in the corporate context the use of sharing as a description of tacit knowledge transfer does become directly implicated in revenue and accumulation strategies. Sharing is an act of interpretation, a dynamic process not evenly accessible to all, which implies a change in the knowledge shared. In a distinct though related context, Grabher and Ibert (2014) discuss knowledge sharing in terms of the contribution of content online as predicated upon common practice and the absence of immediate expectations of reciprocity.

Sharing online, which represents the closest correspondence thus far to its use in the context of the on-demand economy, has been described as a 'fuzzy object' (John, 2012) or a form of 'pseudo-sharing' (Belk, 2014a; 2014b) based upon a 'fundamental contradiction' (Banning, 2015). This ambivalence connotes the transition in meaning sharing has undergone in the digital context, from a predominantly social use, toward one associated directly with the revenue strategies of social media firms, yet retaining a sentimental connotation in which sharing, however disingenuously, points toward online communities as sites promising inclusion, rather than sites of accumulation. Sharing on social media platforms is used intransitively, without an object, as a partial statement, demand, or injunction (John, 2013). The demand made of users to 'share' content relates directly to social media platforms' revenue strategies, since data contributed by users are packaged, sorted, collated, and made available as products sold to advertising and marketing firms (Fuchs, 2014). Sharing describes both a form of digital production *and* inclusion in an online 'community' (Grabher and Ibert, 2014; Leyshon, 2007), yet is still connected linguistically with the altruistic, pro-social, and democratic associations of the

sharing discourse - the optimistic and sentimental uses of sharing outlined above by Ferguson and Benkler - while directing 'appropriate' forms of behavior online as co-dependent, therapeutic, and confessional (John, 2013). Social media therefore intimately connects sharing with exchange, transaction, and economic production, but also uses the term to promise of new forms of belonging and inclusion online.

The ubiquity and reproducibility of 'shared' information and the supposed altruism of contribution is central to the economic structure of digital systems (Banning, 2015). Banning uses the term 'info-liberalism' to point out the connections between neoliberal capitalism and digital communication. In the context of social media sharing is used to forms an affective link through the repetition of positive associations that implicate user-participation in the political economic structure of social media platforms. Banning (2015, page 2) argues that "sharing is yet another avenue through which the ordinary, everyday labor is affectively woven into neoliberal capitalism." I extend this argument in the next sections to view sharing as an affective injunction that cannot be limited the description of the extraction of surplus value from unremunerated social media uses (Fuchs, 2010). Sharing is used discursively in the on-demand context to normalize flexible forms of work produced through digital sharing platforms, in which sharing is related to sentimental affects that promise social inclusion through economic participation.

In corporate and digital contexts sharing is used to describe capitalist exchange and accumulation, through the revenue strategies of social media firms and in the on-demand economy. Digital sharing retains a universalist promise of social inclusion, equality, and authenticity, following an affective, and not strictly economic logic. In the next section I outline the function of sharing tropes that promise novel forms of social inclusion through participation in a supposed egalitarian 'sharing economy,' while contributing to the normalization of precarious working practices and reduction of human value to an only economic measure of the immediate, on-demand accessibility to others' assets and labor-power.

5.3. Methodology

The material presented here is the result of eighteen months of fieldwork with workers in

San Francisco's digital media sector. I conducted interviews with forty-five individuals, and participant observation at networking and conference events. Though my fieldwork was not specifically focused on the on-demand economy, a number of participants worked for a variety of different kinds of on-demand economy firms as per the broad definition given in the introduction. Because digital media work is characterized by its fast turnover, people often work many jobs within a short time frame, and so those who did not presently work for on-demand firms often had in the recent past. Interviewees and those I spoke with informally at networking events represented a variety of perspectives within the on-demand economy, from for-profit but non-transactional firms like Couchsurfing, to firms like Uber that were explicitly transactional and depended on contract labor. Because of the relationship between sharing discourses in the revenue strategies of social media firms and sharing more explicitly in the case of the on-demand economy, some not working for on-demand economy firms also brought up sharing in the context of their work.

Interviews were semi-structured, conversational in tone, and were conceptualized as a negotiated experience constructed collaboratively between interviewer and participant (McDowell, 2009; Sin 2003). In interviews I would ask participants straightforward but open-ended questions to the end of soliciting comments on the sharing discourse. This meant asking questions like "what do you think of the term 'the sharing economy?'," and follow-up questions like "do you see your firm's platform as similar or different to other platforms under the definition of 'the sharing economy?'" Some participants pre-empted this more explicit discussion of sharing, since I asked all participants, "what's the concept behind you firm's platform?," which gave participants the opportunity to talk through the product their firm was designing. In their response to this question, many interviewees, and not just those working for on-demand firms, drew on the sharing trope as a generic reference to how they saw their firm contributing to a social as well as economic good. Throughout interviews, the point was not only to gather empirical details about work undertaken, but also think through how participants spoke about their work, to understand how they narrated working practice, and to think through the relationship between language and the economy, or more broadly, the relationship between the economic and the non- or extra-economic. Thus, I focused not only on what was said, but also paid close attention to how it was said (Dunn, 2000; Secor; 2010).

5.4. Sharing work, sharing as work

In this section I present material from interviews with engineers and entrepreneurs working for on-demand firms in San Francisco to explore their understanding of sharing. I demonstrate how the definition of sharing, often described neutrally as an encounter between strangers, connotes a novel promise of social inclusion between online communities and an essential component of the revenue strategies. The social predicates of inclusion, belonging, and participation, through a sentimental rhetoric of sharing, are coming to be identified with economic definitions, a process Brown (2015) describes as indicative of a transition toward neoliberal forms of reason. This transition is not hegemonic, totalizing, or wholesale - the sharing discourse is above all halting, hesitant, incomplete, and marked by fragility, though with real effects for the on-demand platforms' contractors workers. I first discuss how research subjects narrated what they felt sharing designated in the on-demand economy. Second, I examine interviewees' views on the relationship between ratings and review systems as often-assumed essential components of digital sharing, connoting, in their descriptions the necessary production of trust and reciprocation between parties. Finally, I consider the legal context of changing work practices in the on-demand economy and implications therein for 'contractor' versus 'employee' work.

5.4.1. Sharing on-demand

Research subjects often defined sharing in terms of a generative encounter between strangers, downplaying the explicitly economic character of exchange and the sale and purchase of contractor labor-power. This is not to say that research subjects ignored the on-demand worker-contractor outright, but that they highlighted their role as social and participatory, and displayed ambivalence toward the laboring component of the contractor's role. Interviewees were also anxious to be able to quantify the act of sharing, not in terms of exchange-value or price, but by measures of altruism, reputation, status, or trust.

One interviewee noted the appeal of sharing in the on-demand economy. "I think it's great," she said, "that was part of attracted me actually to joining [this firm], you saw what was going on with Airbnb [...] and so the idea that, yeah, we don't have tons of

resources, how can you make better use of them?" For this interviewee, sharing was an issue of scarcity, making resources available, and making better use of them. She continued,

> "[these resources]² are a prime example, they are used fourteen days a year that's a lot of days not being used, so we actually think it is one of the better used cases of the sharing economy. Versus, sharing your drill or things like that which are much lower dollar items, yeah it costs $150 to buy one, and yeah you're only using it for fourteen minutes [sic] a year, but it's a lot of bother to go and borrow someone else's, pay them for it and then drop it back off. So you're time is also worth something."

This interviewee explicitly affiliated sharing with private ownership, transaction and payment. She claimed that the value (or virtue) of sharing is directly proportional to both the dollar value of the resource being shared and the amount of time those resources would otherwise go unused by their owner. Sharing in this understanding meant making better use of one's resources at a cost to others. The 'amount' of sharing was based on the monetary value of the item and infrequency of its use. In transactional definitions of sharing like this one, the 'value' of the item shared, measured in dollars thus attained for this interviewee the status of equivalence with the relative of virtuousness of the sharing act.

Another interviewee stated, "we are only at the tip of a sharing economy where we deal, at least three times, we do transactions three times a day with strangers, completely strangers. You just jump in an Uber pool, and sit next to the other person, you have no way of knowing what kind of person do you have in front of you." This account is again explicitly transactional and predicated on ownership of private property; yet sharing is defined neutrally as an encounter between strangers rather than as an exchange of labor-power or resources. By deflecting attention away from the purchase of labor-power, this interviewee framed the on-demand economy as predominantly social, as a trusting and reciprocal encounter between strangers. She compared on-demand platforms

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² Since each interviewee's anonymity is guaranteed, and the firms discussed are often small, stating the resource on-demand could identify the firm in question and disclose the identity of the interviewee. In the context of this subject's statements, it is important to note that the resources her firm were making available were high-dollar value luxury items, and that the cost of direct ownership, upkeep, and insurance would out-price most consumers.

with digital reputation aggregators, associating them both with a promise she attributed to new technology in general, indicative of what she described as "hyper-democracy and heroism," in which "you do not need to reach fame or power in order to create a positive impact in your world […] you could do something good and actually your impact is measurable." Sharing for this interviewee opens a positive social space of intimacy and proximity with people are "completely strangers," people who are invited into a car, or into someone's residential space, without full knowledge of who the other occupants are or what they intend.

Another interviewee, who drove for an on-demand ridesharing service part time while working for another startup, framed the sale of his labor-power as a form of participation, again directing attention away from the explicitly economic context of transaction, to conceptualize sharing as a space of uncertainty and encounter between strangers. He said that as a driver sharing meant

> "a space where you could run into anyone, and especially with [this service] because the person is incentivized to sit in the front seat, I get to talk to whatever problems they're having, it's really, I think it's a really good space […] and I could get exposed to different people, because even with sharing economy, in terms of specifically rideshare, it breaks social barriers."

This interviewee had been inspired to learn to code and work for a startup based on conversations and encouragement from passengers. He emphasized the reciprocal and conversational character of the sharing spaces that ridesharing creates, "there's a benefit to both of us," he said, "you've never met before so you're learning new stuff, you'll probably never meet again, so they could tell you anything." The ephemerality of the space of shared experience in this account "breaks social barriers" through the short-term character of the relationship, and the absence of obligation between parties. Sharing, as a space of private exchange and reciprocation creates a temporary impersonal (yet intimate and proximate) space of anonymity, impunity, and non-obligation. This interviewee, as others did above, downplayed the economic component of on-demand platforms and sharing was associated for him more with the expectation of a particular affective space (also constitutive of particularly disciplined kinds of behavior) experienced by those soliciting services through on-demand platforms.

In these accounts, subjects associated sharing with a shared space, something co-constituted and encountered together, and in some cases measured quantitatively by the

dollar value of the commodity shared between parties. Interviewee's displayed ambivalence to exchange and labor in the sharing practice, in some cases rendered individual labor-power subordinate to, though still constitutive of, consumption in the on-demand economy.

5.4.2. The production of trust through user-ratings and reviews

While a key value of sharing in the above section was the constitution of a barely-economic social space of encounter between strangers in the on-demand economy, these spaces simultaneously created a problem in that they also connoted a shared risk between parties. The question of how to manufacture trust between otherwise unknown parties emerged as necessary and constitutive to definitions of sharing.

On this point, one interviewee, commenting on his own firm asserted, "when you build a marketplace you have to build trust," he said, "if I sign up for it I need to trust [the platform] as well as its other members, to actually ship everything, and to make sure it's not going to steal my money, and that you know, that it's actually reliable." The need for trust in the platform (and marketplaces in general) was framed variously as a way to prevent theft and protect consumers, as in the above account, but functioned as a means of imposing discipline and economic control over users through the data-driven calculation and attempts to eliminate risk (Amoore, 2011; Cheney-Lippold, 2011). Another said, "the system largely works on the concept of trust and on the concept of reviews from other people, right, so it's like peer review for you as a person." Manufacturing trust and security, primarily through imposing systems that quantify individual conduct, appeared as a necessity across on-demand platforms and was described as a prerequisite for the capacity to share in each context.

One interviewee framed the manufacture of trust as a "commonsense" way to achieve "openness and less regulation" between parties. In the context of ridesharing platforms he argued that driver and passenger experienced a relationship of equality in the context of ridesharing platforms since ratings systems were reciprocal:

> "people can rate the drivers and the drivers rate the passengers. Drivers rate the riders, and that's a very important thing, it's not only do you get that peer review, and you get that rating to ensure that you're a good actor in the system, but it also actually changes your behavior as a person, as a consumer. It's like a reciprocity principle."

In this case, reciprocity is framed as central to sharing practices in on-demand platforms, while being a "good actor" meant orienting one's behavior toward the values of the platform and the values of others. Less regulation for this interviewee meant redistributing regulation to users, rather than imposing it from the top down though a system of formal management from the firm or platform itself. By transferring oversight to algorithmically mediated, user- and driver-led peer-review system, users (on a principle of sharing as a form of participation and contribution) were asked to observe and inform on one another's behavior. Though this interviewee framed review systems as mutual, egalitarian, open, and reciprocal, the burden of being a good actor, and changing behavior, as I go on to explore, fell unevenly on the driver in such cases.

This uneven expectation between driver and passenger was noted by another interviewee, who said, "the first two weeks of being a driver are really hard, because […] they have this ratings system, […] if you fall under 4.6 [out of 5] you get a message saying you need to buck up, and if you don't you get booted off." This interviewee noted the punitive characteristics of these ratings systems, "especially in the Bay Area," he said, "with reviews on anything, people go, they're really harsh on ratings." Review systems connoted the orientation of particular kinds of worker behavior into alignment with the expectations of the platform and its users, instead of the interests of the worker. Since, "you may not be familiar with the area, you may be too nervous to talk to people, whatever, you may not know how to pick people up," this interviewee emphasized review systems as disciplinary, enforcing the 'right way' of being a 'good actor' for the platform by ensuring that all drivers had an appropriate familiarity with the area and knew how to pick people up correctly, without the platform having to intervene directly. Review systems enforce a particular affective attitude from drivers who cannot be "too nervous," but must instead perform for their passengers an appropriate degree of confidence and enthusiasm for their precarious economic circumstances. Review systems, in addition to quickly eliminating people deemed inadequate by passengers (with no opportunity for drivers to contest ratings) also serve as a corrective technique for anybody unsure about how to behave or act as a driver.

Since, though uneven, review processes are mutual, they serve as form of participation and inclusion irrespective of the consumer or laborer role, generating the

perception of trust and security. This 'soft control,' through algorithmically mediated 'information asymmetry' between the platform and the driver (Rosenblat and Stark, 2015), though punitive, nevertheless functioned as an attempt to eliminate differences between driver and passenger in the sharing practice, predicated on mutual surveillance. For example, one interview subject directly denied any identity, class, or power differential between driver and passenger. He stated, "the type of person that drives […] is, there is no type of person. The type of person that you meet […] could be any person." This interviewee reproduced the sentimental fantasy of the on-demand economy as connoting a new form of social inclusion based on in equal access to economic participation and irrespective of difference, despite the inaccuracy of such a claim.

The quantification of self-policing was therefore framed in a positive light, connoting the production of an intimate and safe public that 'good actors' could build together by reporting on one another's behavior. Building on this latter point, next I turn to how sharing provides a positive frame for the, in many cases pejorative transformation of work practice, supported by the legal classification of workers. Through a sentimental appeal to sharing as a transformative form of social interaction and inclusion, sharing works as a mask for the dubious classification of workers as contractors in the on-demand economy, and further contributes to the normalization of flexible labor (Benner, 2002; Peck, 2002) and precarious forms of work (Gill and Pratt, 2008) under neoliberal capitalism.

5.4.3. Legal classifications of on-demand labor

As noted above, attitudes toward those who work as contractors for on-demand platforms were often ambivalent. Research subjects did not explicitly ignore workers, but their role was imagined as only social, thereby downplaying the power differentials endemic to both property ownership and the purchase of others' labor-power. Though not all on-demand firms and platforms purchase individuals' labor-power (unremunerated, emotional, and other forms of labor notwithstanding), many do, and those workers are usually legally classified in the United States as independent contractors rather than employees.[3] This classification, alongside the transformation of the sharing discourse, has

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[3] Uber, Lyft, Shuddle, Postmates, and Taskrabbit all hire workers as contractors.

considerable ramifications for how labor-power is understood and precisely how the capitalist-consumer objectifies workers (Neo, 2010). Some interviewees displayed a blatant lack of care for contract workers and an ignorance of the legal context of this transaction. In a conversation with one entrepreneur fundraising for his ride-sharing platform, I asked what he thought about a then-recent court decision that Uber would have to re-classify a driver as an employee (McBride, 2015). The tone of his response was abrupt and defensive: "Why, do Uber own the cars now?" he asked, implying that workers' ownership of their cars necessitated a contractor rather than employee status.

Though perhaps not surprising, this response was indicative of the general attitude towards the legal classification of on-demand work. Contract work in the on-demand economy and beyond tends to be framed positively yet condescendingly, as broadly available, flexible and fun work that could neatly fit into the lives of any individual to earn them a little extra pocket money (Christopherson, 2008; McDowell, 1997). This 'flexibility' is presumed desired by and desirable for the worker. Popular commentary often ignores contract work altogether by framing sharing work in the on-demand economy as good for the consumer (Koopman, et al., 2015b). Crude arguments against hiring workers as employees usually cite the reason above (that drivers own cars or other 'shared' assets) or that flexible, part time, and off-site work preclude on-demand labor an employee status. Yet, from a legal perspective, the amount and frequency of hours worked serve as a poor measure of the difference between contractor and employee (Barron, 1999). Judges are likely to favor decisions based upon the 'economic reality' of the worker's circumstances - the degree of control firms exercise over purchased labor-power.

Tests for 'economic reality' include factors such as the degree of control workers have over the details of work, ability for workers to negotiate remuneration, amount and

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Purchasing labor-power in some form is not essential to the on-demand economy (e.g. Airbnb, Turbo, and Boatbound all make available assets rather than labor-power), though contract work is an area of particular controversy surrounding the emergence of on-demand platforms. Though firms claim that they would not function (or that consumers would be unfairly disadvantaged) without the hire of contractors, some firms, including Shyp and Instacart, have transitioned the legal classification of their workers from contractor to employee status.

degree of supervision, management of worker behavior, conditions surrounding termination, and degree of dependency the worker has on the employer. From this perspective, as one interviewee noted, workers in the on-demand economy are more convincingly framed as employees rather than contractors. Commenting on his own experience driving part time while working for a startup, he said,

> "they tell you who to pick up, they tell you when you can't ride for them anymore, you know, you have to accept a certain amount [of rides], they tell you a lot of things you have to do, it doesn't sound like too much like a contractor to me, it sounds like a loophole. […] They have complete economic control over you. There are certain times when you make more money, so you're gonna work that time, you're actually on a schedule."

A software developer working for a ridesharing firm emphasized how much economic control platforms have over drivers. Reflecting on the practice of letting drivers go, he stated, "we can just turn them off, there's no HR, there's no firing or hiring, it's just, at the back end we say we don't give them rides anymore, then they're not employed with us. But we never tell them they're fired." On-demand firms are able to adjust the contract's terms without notice to workers through unilateral changes to the digital platform connoting high degrees of economic control over workers (Rosenblat and Stark, 2015). The behavior of contractors is carefully curated through a distributed method of 'soft control' of peer review rather than a top-down hierarchical system of managerial oversight. Wages fluctuate without notice or appeal, and contractors must accept a certain proportion of work if they are logged into the platform, undermining the assumption that flexible work is 'convenient.' The bargaining power of workers is severely curtailed since they are forbidden from communication with others, and though many do so anonymously through online communities, their work could be terminated without notice if their online identity is linked to their account on the platform.

Recourse to the law as a framework for determining adequate recognition and treatment of purchased labor-power has considerable limitations. These limitations favor on-demand firms, which are able to roll out their platforms in new urban settings quickly and influence popular attitudes and labor practices without recourse to legal frameworks. These frameworks are often outdated, ambiguous and work on a far slower timeframe than the operation of on-demand firms. Functionally too the law has limitations. For example, because the capacity for collective action among on-demand workers is

restricted, legally this implies a contractor rather than employee status. Yet this restricted capacity is itself only produced precisely because workers in the on-demand economy are already classified as contractors. The law is thus tautological, and the argument that drivers should be able to communicate together and negotiate for better circumstances is necessarily inhibited by their existing classification.

This is further complicated since decisions are based in large part on reference to common law, meaning that the legal context of decision-making includes precedents set by judges that have presided over similar cases. Yet precedents do not readily exist in the case of on-demand platform work. Unless courts in separate states come to contradictory decisions (meaning that the Supreme Court may have to make a decision affecting all workers at a national level), court decisions on the 'correct' classification on on-demand work will be piecemeal, decided state-by-state, and platform-by-platform. Legal ambiguities work in on-demand firms' favor, which are quickly able to roll out their platforms to new urban contexts, and since laws are ambiguous, not applicable, or outdated, on-demand firms are able to work on a model of apology rather than permission. Their hope is to take advantage of this ambiguous legal context, while working with the affective sentimentality of the sharing discourse, to create a space in which new standards for flexible and precarious work can emerge.

My contention is not that sharing is meaningless or incidental, or that it can be simply replaced with a term more accurately representing the supposed 'economic reality' of on-demand labor. I suggest that the sharing discourse has been co-productive of the on-demand economy itself. Indeed, taking discourse and affect seriously in the context of economic practice means, in this case, examining how "sentimental politics bridges fantasy and realism precisely insofar as the blatantly artificial register of conventional troping stands as the textual performance of universality itself" (Berlant, 2008, page 36). Pointing out the blatant artificiality of sharing (as some popular commentators have done) misses the point, and does little to deflect the power of the sharing discourse, since sharing offers subjects comfort and solace through its "conventional troping" of the ordinary. Sharing has become a normative script for on-demand work, a strategy for talking about work in sentimental terms of social relation and participation in neoliberal capitalism. This demonstrates the imbrication of discourse

and economic practices, and shows how neoliberal capitalism, far from being associated with the production and perpetuation of 'flat affects,' (Harvey, 2005) can be more accurately thought of as directly constitutive of the production of new sets of social meanings and collective structures of feeling (Anderson, 2015; Konings, 2015).

5.5. Neoliberal discourse, sharing as neoliberal strategy

> "Discourse is not simply that which translates struggles or systems of domination, but is the thing for which and by which there is struggle, discourse is the power which is to be seized" (Foucault, 1981, page 52-53).

Building on my earlier evidence, I argue that the sentimental affect of the sharing discourse attempts to justify flexibility and precariousness as acceptable and desirable characteristics of work under neoliberal capitalism. As others have argued, neoliberalism as a concept has become so capacious as to be of almost questionable conceptual value (Barnett, 2005; Castree, 2006). For neoliberalism to be a useful concept, it cannot simply reproduce what was saliently critiqued of globalization narratives, by serving as totalizing or capitalocentric, and positioned as a neutral or inevitable moment in an only capitalist Western history (Gibson-Graham, 1996; Larner, 2003; Larner and Walters, 2004). Neoliberal reason can be more usefully thought as a contested, fragile, and incomplete discursive and linguistic system that is "disunified and nonidentical with itself in space and time," (Brown, 2015, page 21; see also Foucault, 2008; Springer, 2012), and conceptualized in addition to (and without ignoring) a set of mobile urban and state economic policies (Harvey, 2005; Peck, 2004; Peck and Tickell, 2003; Ong, 2007). Neoliberalism is constitutive of and constituted by 'structures of feeling' (Anderson, 2015; Berlant, 2011) and emotional investments (Konings, 2015), such as the particular example the sentimental sharing fantasy examined here. The language of sharing works to establish sets of working practices and bodies willing to labor in new ways under new discursive frames. Neoliberal discourse attempts to frame the valuation of subjectivity measured in worth by its capacity to carefully calculate self-appreciation and economic participation (Feher, 2009; Szeman, 2015), rather than by a liberal concept of citizenship defined by participate in a public sphere.

The language of sharing borrows from existing discourses narrating mandatory contributions online in the making of alternative forms of community based on economic

participation, and sentimental tropes promise inclusivity through the sale of one's labor-power. Laboring, or sharing bodies are attuned to an entrepreneurial mode of flexible work in which the consumer views labor, borrowing from the intransitive sharing demand particular to social media use, as little more than an informational, abundant, reproducible, 'bit' (Brown, 2015) or 'dividual' (Deleuze, 1992) of human capital. Labor understood in these terms, in correspondence with the demand to share content or information in the social media context, is conceptualized as an infinitely available commodity for on-demand purchase with barely any value. This labor becomes taken-for-granted and is made into an expendable object through terms set by the sharing discourse and the whims of smart-phone users to nullify the distinction between digital commodities and labor-power. Consumers expect compliance from labor as they would from commodities, and enforce these normative standards through practices of peer-enforced 'soft-control' mediated through the platform.

Research subjects noted the promise of sharing as offering a 'new' mode of participation in capitalist society. Yet some, like this interviewee, were skeptical:

> "it almost feels like it's building out this promise that technology had of democratizing everything, and making everything free and available, but at the same time sometimes it feels exploitative, and that it's creating this society of the people that can afford to use these services, and the other people that make these services run, that drive your car or deliver your goods or any of this stuff. [...] I'm not sure if it's making the world better, or just accelerating a lot of the inequality that we see."

This interviewee outlined a possible consequence of the on-demand economy - the potential of further fragmentations of society by divisions of class. Marx (1976) framed class divisions at their most basic as between those in control of the means of production through private property ownership (the capitalist) and those who must make a subsistence living by selling their labor-power to the former (the worker). This interviewee feared that new class divisions under the sharing rubric might create a circumstance in which the capitalist class can afford *not* to privately own resources (connoting a decadent, yet minimalist aesthetic, while still owning the means of production) but instead demand access at any moment to others' resources and labor-power - those who make up the new working class. This latter group must invest what little surplus they have in assets with minimal prospects of appreciation (e.g.,

automobiles) to support the former for whom on-demand access to others' labor-power, in place of the direct ownership of these resources, is novel. In this view, overt social differences between classes are removed from the public sphere, as the capitalist no longer meets the worker at a physical market to purchase their labor power, since that transaction can be conducted at a moment's notice, under terms set by a third party platform, through the use of a digital application. This further enhances the illusion of equality between capitalist and worker, who both participate in a mutual fantasy that the demand made by the former's in terms of the purchase of the latter's labor power is an inclusive and social form of sharing. On-demand workers constitute, without participating directly in, this digitally mediated form of capitalist exchange.

Others interviewees participated in this 'post-'capitalist fantasy, one even framing it as a socialist image of a supposedly utopian future. With this utopian view one interviewee framed his startup (a crowdsourced financing platform) as "like a bank, kind of like village banking, but modern village banking." Another said,

> "we're sort of bringing things back to this village idea back when humanity first started or civilization first started. We didn't really have money and people traded goods and services for one another. So, you know, or they traded favors, […] if there's an ideal sharing economy it's more like that."

Sharing, as discussed as a form of 'village capitalism' or 'socialism,' associates sharing and the practices it encourages with a form of normative sentimentality, nostalgia for a more 'authentic' form of inter-personal economic engagement, and a promise for a new form of social participation. The sharing discourse re-orients the way we talk about labor and work in the 21st Century, while holding out on a real transformation and hope for alternatives to the capitalist system.

Sharing discourses also hold out on the promise of a change to the capitalist mode of production and encourages complicity in the normalization of flexible labor. While Marx (1976) describes in detail how workers are treated like commodities under industrial capitalism, and Foucault (2008) describes the worker's image of themselves as framed by the rhetoric of 'human capital' under neoliberal forms of reason, on-demand platforms encourage an understanding of commodities and labor as continuous, not distinct. Labor in the on-demand economy is merely a form of excessive, and therefore cheap, always-available information. Sharing creates the conditions for discussing labor

as something consumers are entitled to access conveniently and at any moment. The on-demand economy is thus an attempt to create a set of conditions for talking about and understanding labor as something disposable, and always at the mercy of the demands of smartphone users.

5.6. Conclusion - shared discourse, sentimental affect

Sharing is made possible on the basis an affective fantasy that denies difference and in which intersubjectivity is always rendered negatively as a form of objectification. Young (1990, page 231) writes, "the sharing […] is never complete mutual understanding and reciprocity. Sharing, moreover, is fragile." This fragility is connected to the transitive, yet proximate character of discourse, a proximity that, as related to both domination and resistance, always connotes a promise of intimacy, reciprocity, authenticity, and inclusion, yet is also ultimately also ephemeral. Intimacy is held out as a *promise* (but only a promise) that might allow subjects to flourish, but only wares them out in a form of attrition (Berlant, 2011; Povinelli, 2011). The desire to share, and to form an economic vocabulary around sharing as a practice, reifies economic transaction and private ownership as essential to 'life' as such, and situates personal labor-power as an abundant resource that appropriately virtuous and altruistic individuals *should* make available to the demands of others as the basis of an authentic and just society. To share without abandon as a confessional practice, as a desperate attempt to be known and knowable, to objectify oneself as exchangeable and to relentlessly partake in exchange becomes the only 'true' form of social participation, is an aggressive and opportunistic attempt to solidify bonds of trust with others, or to orient oneself toward to 'right' way of behaving, a economic corrective to a positive 'good life' fantasy (Ahmed, 2010).

The on-demand economy treats labor as a ubiquitously available cheap commodity, connoting an economic practice that is supported by a particular *way of speaking, talking, and performing* a disinterested attitude toward labor. In short, discourse and economic practice are mutually constitutive phenomena. In this chapter I have related cultural analyses to the political economy of digitally mediated work and labor online (Leszczynski, 2012). In broad continuity with the normalization of flexible labor in the United States since the 1970s (Peck, 2002) and in the context of new media production (Benner, 2002; Christoperson, 2002) labor in digital contexts is oriented

toward low-paid, on-demand, piece-work, in which remunerated workers are situated in geographically distinct contexts, undermining possibilities for collective action (Irani, 2015; Lehdonvitra, 2016). Rather than collapse digital forms of work as 'affective' and coterminous (Hardt and Negri, 2000), different circumstances of work, as well as a legal framework that may require cases to be heard on a platform-by-platform basis (see Barreneche and Wilkin, 2015) demand attention to how work and the capitalist mode of production are changing with and through digital infrastructures, and alongside the production of working subjectivities, discursive formations, and affective infrastructures.

The rhetoric of sharing is powerful precisely because it taps into primitive, universalist, and normative discourses, and can attach to various objects, that include democracy, community, kinship, family and friendship, activity online, and forms of neoliberal capitalism. We associate sharing with the innocence and naiveté of a childhood activity, of sharing a meal, and of sharing with friends and this sharing stimulates positive associations that we desire to repeat as the supposed universality of the shared experience. For example, sharing for the research subjects in this chapter is described as a naturalized facet of human behavior, and offered a promise of social change based on the situation of economic relations as authentic and ordinary, something in which we all can, and should, participate.

Yet, as an invocation of something we were 'all' once taught how to do, the sentimental affect of the sharing discourse covers over attention for whom precisely is included in the definition of 'all.' The desire to share, and to form an economic vocabulary around sharing as a practice, reifies economic transaction and private ownership as essential to 'life' as such, and situates personal labor-power as an abundant resource that appropriately virtuous and altruistic individuals *should* make available to the demands of others as the necessary predicate for an authentic and just society. Foundationally, in the context of the digital on-demand economy this universality is associated with capitalist transaction and exchange both in terms of ownership of private capital and labor-power as personal capital. Labor-power is framed in the discourse of the sharing economy as abundant, as a form of information, as something that everyone has and which can always be assigned a market value however meager or marginal. In the neoliberal context of the on-demand economy the labor-power particular to our bodies

becomes this universal 'all' (the minimum prerequisite for participation and inclusion in the economic social) which, as responsible and altruistic individuals, we have a responsibility to share with others, in which 'to share' now means to make available, or more accurately, to make disposable. This self-objectification is an ethical imperative from the point of view of neoliberal reason, which takes economic participation as the first step toward inclusion in a definition of economic citizenship.

Chapter Six: Discussion and conclusion

6.1. Entrepreneurialism and digital work

In this dissertation I have presented three examples of different kinds of work in San Francisco's digital media sector. Entrepreneurs and others workers in this sector form a particularly privileged example of work practice in contemporary capitalism. San Francisco's entrepreneurialism is hailed as an idealized model for economic growth and success. Yet, occluded by this script of technological modernity and economic progress are the stories of failure, stress, exertion, of personal loss, and economic practice that might be read as a form of mourning for a fantasy that most can never live up to, and far fewer ever realize. I've asked, aside from forming a key component in America's national economic strategy, what else is produced through the discourse on innovation and through entrepreneurial working practices? Collateral and correlative work is often excluded from these narratives. In the context of the material I have presented here, examples of this work include social media users and on-demand contract workers who form the necessary and constitutive condition for digital media work, yet fall outside of what's included in the startup narrative. Precisely what is produced through startup work is a narrow regulation of the range of statements and visibilities that are allowed to populate working narratives and practices. The discourse on work in neoliberal forms of capitalism has multiplied and intensified the forms and contents of work itself, but also conceals broader questions about the reasons for work's primacy and priority in everyday life.

In these analyses I have paid attention to the complexities of workplaces in which traditional models of production and accumulation are not necessarily present. I have emphasized how work can be understood as closely associated with feelings of attachment, with the production of working subjectivities, and with narration and meaning making that allow subjects to justify their insecure work to themselves and to others. I suggest that these aspects of work are not reducible to 'the economic,' and logics of the market, yet they also have great explanatory power in economic analyses, since they can help us to understand why workers feel compelled to work more, harder, and for less. This speaks both to the procurement of relative surplus value, but also to what in the introductory chapter I called 'value's surplus,' that is, those excessive productions that

might work toward the increase of absolute or relative surplus value, but also may have other unintentional and productive effects on the subject, or are productive of subjects themselves. From the point of view of mainstream economics, the question of why workers continue to work, rather than strike or make demands for better circumstances (which some assuredly do) is particularly puzzling. Explanations usually suggest that workers need their wage, are in no position to negotiate, or have no other options. These 'no alteranative' explanations do nothing to explain the production of work practices themselves, why subjects that hardly need to work continue to do so, or why those that have the capacity to work otherwise do not. By considering the workplace and work itself as a site of social attachment and personal investment, of affect and desire, as a site for the production of compulsive forms of subjectivity, I have thus attempted to provide a more nuanced and complex approach for understanding work and the workplace. Following the theoretical threads of writers like Kathi Weeks, this project has contributed to attempts by others to understand the continuing importance of and immense value placed on *work itself* and on particularly productive bodies in contemporary society (rather than, for example, its results or products) and how this value is reproduced by working subjects, often to their detriment.

In chapter three I presented an account of entrepreneurial affect that sought to examine the attitudes and perspectives of entrepreneurial workers, and explain how they negotiated their working lives and selves, especially under conditions of failure, fatigue, stress, and overwork. I suggested that entrepreneurs locate in their work a form of embodied personal satisfaction, linked intimately to their productivity, which they see themselves as having a personal responsibility for and toward. Collegiality, enthusiasm, and passionate attachment toward work demonstrate a kind of 'compulsory sociality' that functions to reproduce normative attachments to particular kinds of work and working practices. This attachment reinforces and reproduces rigid distinctions between work and life, in which the former is prioritized over the latter, to the detriment of individuals' health, personal lives, and relationships with friends and loved ones. Entrepreneurs form an attachment to their circumstances of work to the extent that they are willing to remain committed to an idea of working success, even as the chance to realize that idea recedes from view. Through this example, I suggest that an account of desire can be located

directly in the infrastructure of economic production, which means that the attachment to particular kinds of work represents not only the efficacy of some forms of accumulation over others, but also psychic investments in those systems.

In chapter four, I examined the role of users in the revenue strategies of social media firms. Here I offer a different example of how desire and affect are located in the infrastructure of economic production, and one that seeks to more thoroughly link this account with Marxist political economy. I suggest that, since many social media firms do not immediately generate revenue, the 'work' of users is not necessarily productive of value. Rather than suggest therefore that social media firms prior to the generation of revenue or the realization of value are not yet relevant in political economic analyses, instead I argue that these firms can be viewed as systems that are productive of desire and user attachment, prior to the packaging and sale of data, but directly implicated in the later accrual of value. Social media firms are able to measure this attachment through user-engagement metrics, and these data are directly implicated in the success and failure of firms since they are used in meetings with investors and at pitch events as a kind of guarantor of the later coincidence between users and profits. In this sense affects and systems of attachment are directly related to systems of production and the, albeit deferred, procurement of surplus value. I argue that social media firms are experimenting with the idea that the cost of producing systems of user engagement that encourage productivity without remuneration is cheaper than encouraging that same or other forms of productivity through the wage-technology.[1]

Finally, in chapter five, I sought an analysis of the fidelity between language and economic systems through the example of the sharing trope in the on-demand economy. I argue here that sharing in the context of digital and social media has come to mean a demand for information, used intransitively as a partial statement and as an injunction for users to 'share' content online. As noted in chapter four, information contributed by users has value (though not by necessity) though this value is meager. Sharing and shared information is a pre-requisite condition for participation online (the nonnegotiable gift of one's data is rewarded with the 'free' use of online media) and has the characteristics of

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[1] I'm not arguing that this cost differential actually exists, merely that it is perceived, and that this perception is itself powerful and productive.

being abundant, excessive, infinitely reproducible, and, closely related to these previous characteristics, is of almost no value. 'Shared' labor in the on-demand economy retains some of these characteristics of shared information in the context of social media use. This discursive framing contributes to the devaluation of labor, which becomes an aggressive expectation of immediate and predictable service at the smart-phone user's whim. I also suggest that sharing is condescendingly imagined through the lens of altruism, community, participation, and belonging, through a nostalgic and sentimental attachment to sharing as a non-reciprocal relation of equality between individuals who are connected through a vague but persuasive reference to the inherent goodness of humankind. Yet, the rewards and restrictions encouraged through the sharing discourse are felt unevenly by passengers and drivers in the on-demand economy, which points to the inequalities endemic to this 'sharing' relationship.[2] The analysis in this chapter points to the relationship between narrative, troping, and language in the economic system, another excess of production that is also intimately connected to it.

All the examples presented here, of entrepreneurs, social media users, and on-demand contractors demonstrate different aspects of the biopolitics of precarization outlined in chapter three. This biopolitics entails a uneven distribution and regulation of economic risk, yet not the elimination of that risk, as the prerequisite for access to particularly privileged forms of subjectivity, in which some subjects (the entrepreneurs) remain the beneficiaries of this form of governmentality, while others struggle to find their footing in a system that remains committed to the perpetuation of their unnegotiable, flexible, part-time, and underpaid, and in some cases, unemployable conditions.[3]

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[2] As Lauren Berlant (2016, page 395) has recently commented on utopian public and academic discourse on the desire for 'the common' as a particularly optimistic attachment, "just because a space on a grid is shared intends nothing about the affective and material substance or even the fact of membership." Berlant points to the fact that the characteristic of 'sharing' in and of does not imply belonging. Thus to attribute sharing to a form of altruism obscures the differential form and contents of circumstance implied in that which is denoted as a 'sharing' activity.

[3] I do not mean to imply that any of examples I present here discuss those constitutive yet unrepresentable in the biopolitics of precarization, those whose lives are unproductive or not sufficiently productive (that is, lives that are simply not exploitable *enough*) and who are consequentially devalued by this system of economic rationality to the point of expiration or death, which might include the paperless, differently abled people, those

Narratives and models of entrepreneurial success and the devaluation of digital forms of labor are both implicated in this biopolitical model, in which standards of economic success and valorization are set and maintained unilaterally by those entrepreneurial subjects. In the biopolitics of precarization, subjectivity is always economic subjectivity, and life is narrated only in terms of value, productivity, self-appreciation, the ability to work, to repay debt, to become the source of one's own satisfaction and so on. Insofar as life is constituted always and only as economic life, the ability to narrate and imagine forms of being together not predicated on economic relations is foundationally and fundamentally undermined. As Doreen Massey (2013, original emphasis) writes, "if we do not challenge this common sense we shall always be arguing on 'their' ground; we end up having to answer *their* questions; in effect, we are always on the defensive."

Massey suggests that in combating the hegemonic common sense of market relations and economic rationality, a simple and revealing question to ask is "what is the economy for?" In asking this question, the tautology and absurdity of economic logic might be quickly revealed, since touting the importance of economic supremacy and competitiveness as goals *for themselves* rather than in the service of a population or democratic system quickly resembles a form of economic tyranny, technocracy, or dictatorship. Yet, in the analysis that I have presented here, it is clear that there is a difference between the conscious recognition of cruelly optimistic forms attachment, and the ability or even willingness to detach or seek alternative forms of attachment. Recognizing a system as unjust is not the same as being able to change it, or even generating consensus around the necessity for change. This is because, as I have argued throughout the material presented here, attachment and affect (and for that matter, 'the economic' itself) are not necessarily rational systems, and the recognition that a desired object is lost or is bad for us (in this case, that object might be the ideal of a particular set of working practices, conditions, or subjectivities) is not the correlate of the desire for (or even presence of) an new object of desire. This is not to suggest that Massey's analysis is

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with criminal records, and transgender people, and also, increasingly, the indebted, sub-minimum wage workers, and those without the guarantee of healthcare or paid sick leave. Overwhelmingly, my research subjects represent the beneficiaries of this biopolitics of risk, and though the labor-power of on-demand contract workers is certainly devalued, I do not intend to frame their circumstances as the most urgent or desperate.

incorrect, but instead that any challenge to the hegemony of economic language must contend with and understand that language is, at least in part, constitutive of and constituted by a desiring system in which affective attachments to existing economic practices are a primary component. Locating desire in the infrastructure of economic production complicates political economic analyses substantially, since doing so must necessarily include the possibility that workers may powerfully identify with and believe in those systems of accumulation that exploit them.

Just as the ethics and ideals of work continue to mutate, in this context, at least partially related to the development, availability, and production of digital and mobile technologies, so too do the modes of production and the methods by which capitalists seek to extract surplus value. Given feminist insight, analysis, and critique, we can push back on the idea that the wage function is the only technology of capitalist exploitation. Instead, examining how free labor is elicited in a variety of forms, the wage technology being only one, seems like a far more exact method for examining capitalism across different modes of production. In chapters three and four, the wage function is, to some degree, absent from the sphere of production itself, which is instead populated by equity owners and workers, and the unpaid social media user respectively. Chapter five presents a case of the digital piece worker whose labor is mediated and morally mandated as a form of sharing. In each of these cases, the extraction of surplus value fits into more and more meager times and spaces as production's hidden abodes multiply, collect new space-times of privacy, and find new ways to hide themselves. Examining labor and work from the point of view of workers themselves, at the micro-scale, remains an important strategy for understanding how discriminatory and exploitative work practices are reproduced and reified, and thereby also in the construction of a sophisticated position on labor politics and questions of economic justice. As I've demonstrated in the material presented here, doing so requires understanding the workplace not as a part in a rational economic system, but as a dynamic inter-personal site that is at once cultural and social, as well as economic. From this point of view, conceptualizing the workplace as a system of attachment, examining the forms of production that exist alongside the production of economic value, and highlighting the lines of power that form and are communicated therein, is an imperative approach to any theorization of the enduring centrality of and

acquiescence to work as a supposedly necessary and intransigent feature of everyday life in the 21st Century.

6.2 Destroy the future

The most important aspects of startup work that I barely examined in this research, and that forms a basic prospectus for future study, were the different financial technologies that structure this work. Granted, I did not precisely ignore finance, since, as noted in chapter two, asking questions about the financial structure of a firm, or being aware of how recently a round of investment had been raised gave important clues into the emotional states and affective dispositions of interview subjects. But finance was not the focus of this research, and as I got to the end of the fieldwork, I began to think that understanding how desire is located in the infrastructure of economic production necessitates a close engagement with the question of finance and financial flows. Indeed, more than technology, capital structures the laboring practices of entrepreneurial work, not only because entrepreneurs and their firms need capital in order to work, but also since, as I suggested in chapter three, entrepreneurs imagine themselves more alongside capital itself than alongside labor (or technology for that matter), and identify and objectify themselves as living though atomized, self-appreciating bits of human capital. The desiring-production of startup work is overwhelmingly not directed toward the production of technology, but aligned alongside the pursuit of capital, and its accumulation, and the production of pecuniary subjectivities and affective dispositions oriented toward that goal of accumulation for accumulation's sake. Hence the ironies and failures I noted in chapter one, and the approach I took to this research in general, as a study of work rather than one of technology, since I felt that the latter perspective would obscure more than it would reveal. Thinking about startup work as simply productive of digital media radically fails to account for the working practices it encourages and validates, and the financial systems and structures that underwrite it. If this project has been associated with examining the devaluation of labor and laboring practices in San Francisco's startup scene, the necessary and constitute correlative of this story is the relationship of this devaluation of labor to flows of capital.

Once again, technology is not absent in this image. But in the context of this study

it has been far more productive to conceptualize technology as subordinate, as an excuse, as a form of rhetoric, as an ad hoc explanation, as an apology, and so on, rather than as cause, origin, or object. Startup work is implicated in production of a three-fold attachment to and orientation toward the future. The orientation toward the future in the startup scene are produced around three main elements: technology itself, finance, and normative (masculine) (hetero-)sexuality.[4] The first, technology, as writers like Fred Turner (2006) note, organizes the future in the view of technology as progress, as the inevitable change that the world needs and deserves, imagined through a high-tech tomorrow, and in which history is a tale of linear technological development from an uncivilized tool-being, to the hyper-civilized smartphone user. In the second financial aspect of this production of the future, speculation and other economic activities such as investment, appreciation, issuing lines of credit, and so on, finance is necessarily a trade on the future, a form of economic activity predicated on a particular set of assumptions about the modernist linear arrangement of time. At its most basic, finance is an attempt to anticipate the value of labor and the value of productivity. The monetarist shifts in the 1970s in the United States were associated with the deregulation of financial mechanisms (notably merchant banks and pension funds), market liberalization, the privatization of public resources, and the transfer of personal and family savings to private securities and bond speculation. Yet, as many writers on financialization in geography and beyond note, the future-oriented technology of finance is not restricted to business practices, but inaugurates new forms of speculative, self-appreciative, guilty, and indebted subjectivities, that are directly implicated in the third production of the future stated above. In this sense, the future-oriented characteristics of finance intersect with everyday intimacies and the production of normativity, as subjects are asked to become financially literate and responsible, to improve credit scores by taking on debt, to invest personal savings and pension plans, and so on. Indeed, the biopolitics of precarity that I outlined in

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[4] I have often put 'hetero' in parentheses in this section since there are a great many normativities, and while heterosexuality is a particularly dominant one, this is not to suggest that, for example, white gay men's sexual performances are necessarily more inclusive, progressive, or less prescriptive, than heterosexual forms of normativity. Some writers in geography have erroneously celebrated gay and queer spaces as necessarily emancipatory, which is a view that I cannot endorse.

chapter three is necessarily implicated in the future-oriented financialization of the self through the calculation, assessment, regulation, and management of risk, at the level of both populations, and increasingly, as data about financial selves and lives becomes more granular and ubiquitous, individuals. Hence, the future-oriented normativity of finance becomes associated with another future-oriented normativity, that of discourses on sexuality, on the nuclear family, on the reproduction and responsibilization of the self, and on the distribution and management of hetero- and homo- normativity. This intersection is perhaps most clearly seen in the deregulation of pension funds in the United States in the 1970s, opening family pensions - and therefore futures - to new dimensions and dynamics of risk.

Though the perpetuation of the image of the family is not directly implicated in the financial technologies that structure new media work (though nor would I argue is this image absent altogether),[5] it is clear that produced alongside the working norms and ideals that structure this work is a particular set of (hetero-)normative and masculine business practices and performances. This ideal is clear in the differences of opportunity and financing awarded to white male entrepreneurs in new media work, which might be interpreted as a more or less explicit fetishization of the youthful, clean-cut, and professional male entrepreneurial body by male investors. This is closely related to what Eve Sedgwick (1985) explicitly identifies as 'homosociality' in the reproduction and consolidation of patriarchal relationships between men. Through this concept of homosociality, Sedgwick situates social and sexual same-sex relations (that is, non-genital and genital encounters specifically, the uncertain gap between non-sexual friendship and homosexuality) in a continuum rather than dichotomy to examine how circumstances of advantage are exchanged in the gendered economy of male performativity, in which advantage is often passed through a subordinated yet constitutive other (often a minority or feminized subject), who must be present but cannot participate directly in this socio-sexual game. Digital media work is a site in which the twin pillars of productivity, the laboring self and the reproductive self, are protected and

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[5] Digital products are often marketed on normative images of family intimacy. To give two examples, a major advertised selling point of smart locks is in protecting one's family and digital picture frames are often sold as a way to manage contact with one's extended family.

invested in, both underwritten by a polished and professional performance of virility that is at once entrepreneurial and sexual. This future is not just the future of finance, but also an embodied future in which the entrepreneurial self must demonstrate through bodily performance that they are a secure investment, that putting money on themselves and their firm will be worth the risk. In this sense, the financial subjectivities of entrepreneurialism are also the production of dominant masculine subjectivities. In addition to the production of entrepreneurialism itself therefore (as I argued in chapter three) startup work is an economy and trade on particularly appropriate fiscal and gendered performances, in which the body has to demonstrate an appropriate orientation toward these twin securitizations of the future, the financial and the sexual, masked and mediated by a third: the appearance of a technologically oriented future.

This combination of three futures - the financial, sexual, and the technological - forms an optimistic set of attachments to an ideal of future high-tech productivity, an ideal entrepreneurial good life that only a small minority can achieve, but to which many subscribe. In this sense, combating the economic language and rhetoric of contemporary neoliberal reason and the capitalist state that tends to view the development of the former as the goal toward which society must always be driven, might involve the reorientation of desire away from this normative future, and instead toward the production of affective attachments to alternative temporalities. This is no easy task, of course, and I do not suggest a practical solution here, merely a theoretically informed approach to academic critique that may provide a framework for thinking through the relationship between economics and sexuality and the normative futures they produce, that I argue, and have consistently argued in this project, are irretrievably interwoven.

Perhaps the strongest critics of normativity in general, and the future-oriented normative regimes of compulsory heterosexuality in particular, that I suggest are increasingly caught up, as scholars of financialization describe, with the financialization of subjectivity itself, are the so-called anti-social or 'negative' queer theorists. Lee Edelman (2004) serves as the archetype for this kind of thinking, offering a polemic against future-oriented ideologies. Edelman suggests that the future functions as a normative biopolitical ideal, as the justification for the sacrifice of less than productive or

procreative bodies.[6] Bodies that cannot contribute to the production and reproduction of the hetero-normative future become those lives that are expendable within this regime. Queerness in Edelman's account is a re-orientation of politics away from the reproduction of the future in liberal politics, in which those unproductive bodies, while constitutive, are always left out. Edelman's polemical solution, rather than extending notions of productivity and life to more or more bodies (the dominant representational strategy of liberal democratic politics in general, which does nothing to replace the futurity of precarious biopolitics), is instead to reject hope and optimism for this future-oriented temporality wholesale, to substitute the future (epitomized and fetishized in contemporary heterosexual politics by the sentimental and nostalgic image of Children and Childhood,[7] those innocent lives that are not already ruined, the unquestionable import of which queerness is often accused of polluting) for another form of temporality, one of queer negativity that rejects the promises of self-knowledge and the 'better life' that structure the Symbolic. Edelman suggests a challenge to the value of the social itself by embracing and celebrating the right-wing accusation that queerness and otherness present only a threat to signification and the status quo. Rather than demanding inclusion and condescending forms of tolerance in the appropriate confines of the symbolic order, Edelman argues that queer politics should instead be associated with that order's ungrounding, its destruction, and the eradication of the social itself, at least as we know it. Thus Edelman's (page 31, original emphasis) negativity: "it is we who must bury the subject in the tomb-like hollow of the signifier, pronouncing at last the words for which we're condemned should we speak them or not: that *we* are the advocates of abortion; […] that the future is mere repetition and just as lethal as the past."

This wholesale embrace of queer negativity is of course an extreme position.

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[6] He writes (page 60), "futurism thus generates generational succession, temporality, and narrative sequence, not toward the end of enabling change, but, instead, of perpetuating sameness, of turning back time to assure repetition – or to assure a logic of resemblance (more precisely: a logic of metaphoricity) in the service of representation and, by extension, of desire."

[7] It is worth emphasizing that Edelman is not talking about children as such, but about the *dogmatic image* of the Child as that which is privileged by and drives contemporary politics, and in particular conservative politics. Edelman is discussing instead the *figural image* of the Child *in a structure of identification* with the future. Edelman often indicates this by using a big instead of small 'C' to refer to the Child.

Edelman writes, as I noted, in the genre of polemic. He also acknowledges the material and psychic impossibility of his own position. Despite this, I think aspects of his critique can be taken seriously, at least insofar as he suggests that precisely the problem is the attachment to normative and cruelly optimistic images of the future. The future, for Edelman, has become a dogmatic image of thought and object of contemporary politics, over and against the concerns of the present, and precisely the challenge, whether we accept Edelman's almost suicidal social nihilism or not, is to attempt to present thought with alternative or multiple images, to search for the differences that swarm beneath the sameness of, in the context of my own research, the collaboration between financial and heteronormative futures. In this light, other forms of queer theory in this tradition are helpful. Sara Ahmed (2010) for example, highlights how feminist, queer, and anti-racist struggle have always been associated with the production and procurement of particular forms of negativity and unhappiness with regard to the status quo. For Ahmed, the possibility of social change and happy acquiescence to existing circumstances are mutually exclusive categories. Simply put, progressive politics and the demand for change, for alternative and perhaps less positive future-oriented temporalities, must always be, at least to some degree, fundamentally *unhappy*. The point for Ahmed, in some correspondence with Edelman's project, is not to ask queerness or other forms of difference to fit within the dominant model of capitalist and state-sanctioned happiness, but to form more ambivalent attachments, to become comfortable being *unhappy* in order to provide systems of support and belonging for those whose differences are so different that they cannot fit into the narrow models of normative happiness.

Queer historiographer Heather Love (2007) in a similar light sees value in the historical backwardness of queer subjectivity, and criticizes queer theorists for arranging queer history into the linear and future-oriented temporality I've been exploring here. These normative queer histories that Love critiques, she argues, attempt to inaugurate sexually ambiguous or marginalized historical figures that have ambivalent and uncertain relationships with the contemporary categories in line with dominant queer narratives today. That is, these theorists attempt to locate identity politics into a simple chronological transformation from early 20th Century times of supposed queer shame and melancholy, to late 20th and early 21st Century times of acceptance and happiness. Love

suggests that this production of queer history does a disservice to those others that lived in times prior to the designation and classification of the modern discourse of (homo)sexuality (i.e. the late 19th Century to early 20th Century) [8] by unfairly instrumentalizing their experiences as forms of necessary queer abjection in service of a later happy inauguration of queer subjectivity into the late liberal discourse of biopolitical modernity. Instead, drawing on ambivalent figures such as Willa Carther, Love suggests that we look for genuine validity in the backwardness, sadness, melancholy, regret, doubt, shame, unrequited and hidden love, awkwardness, unbelonging, and loss that these possibly-queer and certainly non-normative historical figures express.

The point for these authors is not as extreme as Edelman's, but does address the failure of normative forms of attachment to linear and future-oriented temporalities. Lauren Berlant (in Belant and Edelman, 2014) suggests that Edelman's position entails a form of living with negativity that would mean an attempt to live with only that unbearable part of the self over which we have no control, an utterly unsovereign and co-dependent kernel. Though she does not suggest that Edelman's argument is entirely untenable, Berlant states that this living with only the unbearable (and, therefore, for her at least, without attachment altogether) is too much to bear and she instead offers the contrasting position (that she frames as 'utopian') that we can continue to cultivate an optimism for attachment (while not denying that negativity is the defining characteristic of change itself), even if attachment must be reimagined as ambivalent and unoptimistic. Berlant endorses Edelman's concern for the destruction of the status quo, but she also suggests that Edelman refuses to think about the question of social repair. Berlant worries that in the absolute destruction of the social through a commitment to the transformative and constitutive power of negativity itself (insofar as no change can occur without some reference to that productive negativity), the potential for repair and reattachment may also be rendered inaccessible to the subject. These authors describe optimism as "this orientation toward a future, toward something always yet to come, conceived as bestowing a value on life by way of the future anterior, by way of the life one *will have lived*, conceived, moreover, as justifying this refusal to live it *while one could* (Berlant

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[8] Michel Foucault (1978, page 43), perhaps facetiously, gives the date of 1870 for the invention of the 'species' of the homosexual.

and Edelman, 2014, page 3, original emphasis). Optimism is a form of not living justified by the anticipation for and attachment to the promise of a better life. And Berlant's proposed way to re-think this future-oriented commitment to normative models of sex and sexuality - what Edelman calls in the quote above 'living *while one could*' instead of attempting to live a life 'one *will have lived*' - those models that precisely *work against* the flourishing of life (at least in the overwhelming majority of cases) rather than working for it (which as I argue is increasingly implicated in a biopolitics of risk and precarity, and the financialization of entrepreneurial subjectivity), is in "imagining how to detach from lives that don't work and from worlds that negate the subjects that produce them; [...] to expand the field of affective potentialities, latent and explicit fantasies, and infrastructures for how to live beyond survival" (page 5).

Hence the critical and theoretical approach I outline for the study of the financial technologies (in particular with venture capitalists and venture capital firms) that structure new media work - both a thorough commitment to the labor politics and ethics in close conversation with both political economy and cultural theorists presented here, and a queer commitment to anti(hetero)normative attachments to the future, forms of subjectivity, and social infrastructures. This approach is associated with understanding how the social is co-produced through the attachment to accumulation and the cultivation of normative masculine heterosexuality, in which sexuality is not subordinate to economy, not rendered "merely cultural" as Judith Butler would put it, and established instead as a form of "political anatomy" in Michel Foucault's words. That is, in establishing how financial flows also follow lines of sexual orientation and seek to regulate the discourse on sexuality that produces the boundaries between an always only dualistic modern discourse on hetero- and homo- sexuality. This study will have to examine, through continued primary data collection and qualitative methods, how venture capitalists conceptualize their work and their working selves, how they understand the sums of accumulated capital (that is, an aggregate of exploited labor-time, the morbid monetary representation and arbiter of dead labor) that they distribute, spend, waste, and how they narrate their gambling of funds procured from charities, personal savings, and pension funds. I will continue in this project to draw on perspectives in cultural economic geography, and in particular turn to newer research in geography and beyond on

financialization. As noted in this section, I think that feminist and in particular queer approaches provide fascinating perspectives through which to seek lines of intellectual connection, especially given the intimacy between the distributions of capital in San Francisco and other digital media sectors, and the validation of mostly male developers and entrepreneurs. With writers like Eve Sedgwick, we might theorize the intimacy between sexuality and finance in terms of the production of dominant masculine subjectivity *precisely through* the exclusion of minoritarian others in the financial flows of startup work. These marginalized others constitute dominant financial subjectivities without being able to participate in them. They are required and necessary, yet unacknowledged. Examining financial speculation alongside that which is excluded from the discourses and narratives that support and structure it entails an understanding of how the valorization of speculation, as the ultimate goal and good of an only future-oriented production of the social, exists in intimate proximity with the speculum of otherness and abjection, that is, by those unrepresentable in the biopolitics of precarity and co-produced alongside entrepreneurial modes of work.

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VITA

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