

Brittany Paris

Speed, Sensation, Crisis: Constructing the Individual in Web 2.0

Thesis for the

Masters of Arts in Media Studies

The New School

N00215903

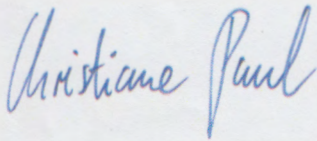
parib903@newschool.edu

397 Greene Ave. Brooklyn, NY 11238

660-341-3792

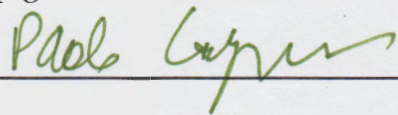
Primary Thesis Advisor

Christiane Paul



Second Reviewer

Paolo Carpignano



Reviewer

Geert Lovink

Reviewer

Elizabeth Ellsworth

Thesis Coordinator

Carol Wilder

TABLE OF CONTENTS

Abstract	3
I. INTRODUCTION	4
Methodology	7
II. WEB 2.0 PLATFORMS	9
Amazon Mechanical Turk	9
Facebook	15
III. THEORETICAL FRAMEWORKS	18
Specters of Marx and Immaterial Labor	19
Individuation	25
Speed	30
Sensation	37
Crisis	43
IV. FIELD STUDIES ANALYSIS	49
Speed	51
Sensation	57
Crisis	62
V. CONCLUSION	67

Abstract

Networked communication technologies hold value in their capacity to connect individual lives to the larger whole of society, providing people with the opportunity to receive volumes of information transmitted over long distances in an instant. Many people have argued that this could establish a less hierarchical way of existing within a fluctuating society that reaches across national and cultural boundaries since instant connectivity allows people to easily consume and produce cultural products and disseminate ideas across multiple platforms. Individual users are treated as consumer profiles produced by data of individual tastes based on a person's use of networked platforms.

I will discuss patterns of production and consumption across networked communication technologies by using Bernard Stiegler's notion of human individuation—as it is concerned with speed, sensation and crisis—to develop a critical framework for studying culture, particularly labor on networked platforms, in an era when boundaries between once seemingly distinct cultural practices have been blurred and the time of life itself becomes the site for production of value.

To understand the socio-technological processes related to interaction with networked communication technologies in terms of speed, sensation and politics, I conducted a field study of interviews with 22 individuals, who engage in a variety of online tasks through Amazon's Mechanical Turk and Facebook, to determine both the forces at play within these networked platforms and the implications of these interactions. The thesis analyzes how these types of activities might be categorized in terms of labor and leisure and suggests how this critical framework might be used to generate new modes of inquiry and

display in related investigations.

Keywords: Bernard Stiegler, individuation, speed, leisure, time, difference, labor, affective labor, Facebook, Amazon's Mechanical Turk, affect, sensation, crisis

I. INTRODUCTION

Under current conditions, networked Internet production and consumption happen increasingly because individuals find these activities “convenient” or because they advance a personal agenda. There is, of course, obvious work involved. Web 2.0 makes it possible to do full-time jobs and many types of independent freelance work, from film to journalism, from home. It also enables crowdsourcing or paying people pennies to partake in marketing tasks. Most people online engage in a range of affective pursuits, such as checking in with friends and family that live far away, online gaming, keeping up with news and seeking interesting or necessary information. On the platforms where this production and consumption exist, these activities—the surplus value of the user—then become economic incentives that mold and generate activities. People still work, but it doesn't feel like work. Then again, free time doesn't feel free either. The data gained from online traffic illustrates that today's relationship between work, surveillance and capture is reminiscent of managerial techniques in earlier periods of modernity and even post-modernity. But, at the same time, these data and related practices present interesting nuances between once concrete dichotomies—self and other, production and consumption, and public and private—that must be reconsidered in the age of labor on networked communication platforms. I seek to investigate how today's work conditions are different from previous ones. I present field studies of the platforms that begin to

show the increasing complexity of online life, which has inspired academic inquiry into the inner functioning of networked technologies that were once considered—and still are by many—to be a benevolent force that fills in for the now outdated industrial economy. As many media theorists have concluded, the use of existing models of media critique and analysis for investigating digitally networked culture does not necessarily provide clear answers, or even a foundation for clear questions. My goal is to elucidate the established hierarchies and dualities of communicative interaction, and to show how Web 2.0 disrupts this order by more radically blurring the lines that separate social categories, especially those of labor and leisure. I will develop a critical framework to investigate activity on networked communication platforms that takes into account the complex and ever-evolving nature of work and play. I will show that these activities now exist as the work of affect and functions of choice.

Essentially, this thesis looks to answer the following questions:

What are the situations that bring about the blurring between once distinct facets of life, specifically as these interwoven phenomena relate to questions of production and consumption, labor and leisure?

Is the notion of digital labor a result of the aforementioned blurring? If so, how?

Can digital labor be categorized?

What are the implications of the answers to these previous questions for people's general awareness of how these processes function in their own lives?

The following section lays out the methodology for the field study investigating the two platforms in question—Amazon's Mechanical Turk and

Facebook. The subsequent section consists of brief fictional sketches of online work and leisure activities that have been generated from stories gathered for the two components of the study. The section also provides more in-depth analysis of these two platforms and discusses why these, in particular, are studied.

I then lay out the autonomist Marxist theories of immaterial labor that serve as a framework for the field study. I draw on Tiziana Terranova's *Network Culture* to prove that while such neo-Marxist theories still hold in many ways, they need to be re-thought or reconfigured for the current era of networked communication technologies in late stage capitalism. On the basis of these theories, I develop an analytical framework for reconfiguring or adding nuance to notions of "immaterial labor" through Bernard Stiegler's *Technics and Time series*, and *For a New Critique of Political Economy*, as well as other related theoretical suppositions. My thesis analyzes human individuation with networked communication technologies through three particular facets: speed, sensation and crisis. Stiegler challenges the neo-Marxist perspective of cultural studies, which supposes that humans and technologies are external to and separable from one another, and argues that humans are, in fact, inseparable from technologies. He asserts that time and materiality constitute subjectivity and that in the present technical system of transnational media, we cannot live outside of the "industrialization" of consciousness. Using this analytical framework, I will conduct an examination of the field study interviews that considers the concepts of individuation, speed, sensation and crisis outlined in the previous sections. The goal is to determine how blurring boundaries manifest in contemporary networked communication technologies, relate to these components of individuation and can be applied to networked economics. Using

this framework, my analysis will compare and contrast these two platforms—Amazon's Mechanical Turk and Facebook—in terms of their respective functions in online life.

The conclusion will provide a summation of the implications of the field study analysis, including a discussion of the ways in which Stiegler's theories affect how this and similar types of internet ethnography can be performed, interpreted and disseminated in new ways. These new methods must consider the idea that man and machine work together in an assemblage, each constitutive of the other. New approaches to knowledge production must also consider how, in an era characterized by broken boundaries, one can impart knowledge that leads to new perspectives on how one might live in the world.

Methodology

Through the framework I built by using Stiegler's philosophy, I analyze 22 interviews with individuals who engage in online activities on two different platforms. Activities on the first one, Amazon's Mechanical Turk, are primarily seen as work. Activities on the other, Facebook, are primarily seen as leisure. From the interviews I have conducted with each group of people, I developed a field study that evinces a blurring of boundaries between work and leisure and its implications on the subjectivities of individuals. This field study is an attempt to reconfigure the concept of ethnographic studies to involve Stiegler's notion of technogenesis—the very beginning and subsequent evolution of consciousness itself in relation to technology—and to bring an awareness of the relationship between human life and technology, both to study participants and to readers. The case study explores how people interact with various platforms and how

these interactions might be interpreted to enact change in their lives.

Many studies have understood the worker's relationship to the modes of cultural production as a site of struggle. These debates have primarily addressed the exploitation of value made possible by internet users' creation of digitally-mediated entertainment and information. However, scholars recently have explored the idea of the appropriation of surplus value generated by online activity, investigating a plethora of political quandaries. While this traditional cultural studies approach is still an important component of critical internet study, it is also important to devise ways to investigate more nuanced questions surrounding the blurring of the social categories of class, status, labor and leisure that occur in Web 2.0. The field study of the thesis seeks to "enframe an encounter" by thinking through Elizabeth Grosz's idea of "concept" as using practices performed on events in order to understand the relationships between these events and how we react to them through applying past and present forms of knowledge.¹ Through respondents thoughts, as they actualize in the virtual flow of their feelings and memories, I do *not* attempt to capture the entire truth of how they use these platforms or their motives for using these platforms. Instead, I relate the results of an encounter between myself and the participants as I ask them to put into words things they have perhaps never thought about or articulated before. Asking respondents to reflect on these aspects forces them to

1. In *Becoming Undone: Darwinian Reflections on Life, Politics and Art*, Elizabeth Grosz discusses a type of knowing that is performative and seeks to "actualize the virtual," using the terms as they are understood in Deleuze's philosophy. Here, to actualize in a brief encounter, allows us to gain insights on the unseen and unknowable virtual, here, is simplified to "onflow of consciousness," which cannot be visible, utterable or understood.

make actual, if even for a moment, possible ideas, thoughts or gestures that exist in the onflow of their consciousness, through articulating statements about the physical forces and thoughts that relate to the work that they do.

The interview component of the research employed oral history interviewing methods designed to engage the participant in answering questions or prompts without interruption. The psychoanalytic approach encompassed in oral history allows for interviewees to speak about their inner life and voice unformed thoughts, to think through their opinions in the act of verbally communicating them. As each interview situation was slightly different, the questions in the appendix provided me with a guide for navigating through interviews. I followed this guide in asking questions about the ways in which respondents' lives are related to networked communication technologies they use and vice-versa.

II. WEB 2.0 PLATFORMS

Amazon Mechanical Turk

It is nearly midnight. His eyes flutter to the upper right hand corner of his monitor to take note of the time. His brow crinkles as he calculates how many more hours he can work, or even physically handle. The screen flashes and he switches between windows. He puts out his cigarette into a now overflowing ashtray as his posture becomes filled with purpose. "Another three hours, maybe." Looking at the ashtray's diminished capacity as he pulls out his last cigarette in the pack, he realizes—he hadn't left his workstation, his recliner, since 6 p.m. He has been working for almost 12 hours already with breaks only for the bathroom. Without breaking his gaze from the multiple browsers on his screen, he lights the cigarette with one hand. As he begins, he hears the local radio station's news report murmur through a list of public schools in the district that would be

closing in the upcoming year. Soon the names of the schools were drowned out by the rhythmic clicks from his mouse.

Today had been subpar. MTurk.com—the site where he usually found tips about what tasks were available and how to find them—showed little activity. He found a batch of tasks writing product reviews for a diet and nutrition supplement website. These tasks were not his first choice, but he was contented to work through them while sporadically looking for other, more lucrative ones. After a few unprofitable hours, he got an instant message from his friend in Phoenix that a huge batch of tasks had just been posted. This batch consisted of the real money making tasks—tagging photos. Following his initial burst of enthusiasm, he almost mechanically slipped into his comfortable groove, clicking on images and typing into web-forms whether images should be listed as clothing, electronics, or household furniture. A new task would only be released once he completed one. He glanced at the chat bubble tucked in the upper left corner of his screen. He was chattier than usual today. His friend in Phoenix seemed to be having trouble keeping up.

“This batch is worth about \$10 an hour,” he says to himself. “Maybe \$12, if I keep this up.” As the images seem to take longer to load, he begins to worry. Something had changed. He begins to wonder if tasks are being deleted from the list as he works on them. In general, he was never fully certain if every task he completed counted towards his income. The tempo of clicking through 800 tasks had felt refreshing when he started them at 4 p.m. But now, as he stares at the chat bubble, he feels his eyes sting and the dull pulse in his temples. He reminds himself he hadn’t made his \$20 per day quota for three days. His bills would be due this week. He could pay the bills. But after that, there wouldn’t be much for groceries and gas. “Okay, back to it.” He is resolute in staying until he meets his quota.

For three to twelve hours a day, seven days a week, this is what he does. Barring a special event, holiday or disaster, this same set of screens has been his life since 2009 shortly after the hotel he managed for 11 years let him go. The hotel industry in Georgia was not exactly booming and he was getting older. He would have retired in three years had he not been let go. Faced with a depressed economy with no solid opportunity for other full-time jobs, he used his unemployment

while looking for something else to do to make money. He had hoped to gain full employment with his hobby at the time—creating web sites—but even as he worked hard to cultivate and maintain clients, the venture was met with no sustained success. After somewhat frustrating trials with various online telecommuting platforms, many of which proved to be scams, he came across a blog on which someone mentioned the platform he now worked for full time. He tried it and it wasn't terrible. In three years, he actually made it his full-time job.

For fees ranging from dollars to pennies per task, 'turkers,' as the workers on Amazon's Mechanical Turk platform call themselves, perform repetitive tasks such as tagging photos, writing short descriptions for online catalogs and separating images in categories such as food, tools and apparel, which humans can do almost without thinking, but a computer cannot do effectively. Amazon's Mechanical Turk is a marketplace where many companies have solicited workers to do everything from transcribing insurance claims for pennies a minute to commenting on blog posts for a dollar per post. Amazon takes a cut from every task performed.

In late 2005, Amazon Mechanical Turk, conceived by Jeff Bezos, launched as a virtual workplace providing "artificial artificial intelligence." Through the mid 2000s this platform, perhaps more than any other, became the focus of debates on the boundaries of labor and leisure in post-industrial society. To condense the essential information from various conferences in subsequent academic inquiry spanning the last half of the 2000s, Amazon had become popular for facilitating online commerce for users—both producers and consumers—by harvesting the preferences of its customers and using those preferences to influence purchases based on taste. In the mid-2000s, Amazon developed the mTurk marketplace, which allows individuals, called requesters,

to make use of crowdsourced human intelligence to perform tasks that computers cannot do efficiently or reliably at a fraction of the price that would usually have to be paid to an assistant or consultant. This networked crowdsourcing platform derives its strange name from a wooden automaton named “the Turk” created by Wolfgang von Kempelen in the early 1800s, automated by gears and pulleys. This machine played chess against human opponents, such as Benjamin Franklin and Napoleon Bonaparte and won. Later it was found that this mechanical wonder was not, as many suspected, what it was hyped to be. It was, instead, operated by a man inside the Mechanical Turk. Similarly, Amazon’s Mechanical Turk provides “artificial artificial intelligence,” through the crowdsourcing of tasks via networked communication technologies. Requesters reap the benefits of gleaning information that humans are more well-suited to complete reliably at a fraction of the price that these tasks would usually be performed if not for the platform.

An investigation by Karen Fort and Gilles Adda featured in MIT Press Journal uncovered in a survey that most individuals thought that working on mTurk was a great way to spend free time and make extra money in the United States, while a larger percentage accessing the site from other countries, specifically India, used mTurk as a source of either primary or secondary income:

According to recent studies in the social sciences (Ipeirotis 2010b; Ross et al. 2010), it is quite true that a majority (60%) of Turkers think that mTurk is a fruitful way to spend free time getting some cash; but it is only 20% (5% of the India Turkers) who say that they use it to kill time. And these studies also show that 20% (30% of the India Turkers) declare that they use mTurk “to make basic ends meet.” From these answers, we find that money is an important motivation

for a majority of the Turkers (20% use mTurk as their primary source of income, and 50% as their secondary source of income).²

Katharine Mieszkowski's 2006 article "I Make \$1.46 a Week, and I Love It" featured in Salon details the function and problematic nature of Amazon's Mechanical Turk:

There is something a little disturbing about a billionaire like Bezos dreaming up new ways to get ordinary folk to do work for him for pennies. Is a cut-rate pittance the logical result of tapping into a global workforce of people with a computer, an Internet connection and an Amazon account? And, really, who are all these people working for a measly 1 cent?³

Many share her idea of Mechanical Turk labor being exploitative, as Mieszkowski details in her article:

Milland's main beef with MTurk.com is that there's no way to complain if a company rips her off by refusing to pay for good, accurate work. 'Amazon basically says, tough, they can reject what they want,' she says. 'There's no recourse.'

Rebecca Smith, a lawyer for the National Employment Law Project, seconds that. 'The creativity of business in avoiding its responsibility to workers never ceases to astound,' she says dryly. 'It's day labor in the virtual world.' Smith sees Mechanical Turk as just another scheme by companies to classify workers as independent contractors to avoid paying them minimum wage and overtime,

2. Karen Fort and Gilles Adda. "Mechanical Turk: Coal Mine or Gold Mine?." *MIT Press Journal* (2010): 2.

3. Katharine Mieszkowski, "I Make \$1.45 a Week and I Love It," *Salon*. (June 24, 2006): accessed October, 2012, http://www.salon.com/2006/07/24/turks_3/

*complying with non-discrimination laws, and being forced to carry unemployment insurance and workers compensation. 'It's an example of cyberspace overtaking a country's labor laws,' she says.*⁴

In terms of turkers, one can assume a top-down structure in which those below are paid a small portion of the profit in relation to the amount of work they do. However, with turking it is more difficult to tell exactly what promotes the reproduction of production. The leading scholar on Amazon's Mechanical Turk, Panos Iperiotis, argues that performing these tasks is primarily a hobby and the small wages that result are a pleasant byproduct. However, the study conducted for this thesis revealed that this was not exactly always true and suggests that the issue is more complex.⁵

*[I was] only [turking] because of the economic pressure. So you have less freedom because you wouldn't be doing it, if not for your circumstances. The pressure to either be there all the time doing the work or researching the work is very strong. At least in the factory or the post office, you'd punch in and you'd get your money and you'd go home. The post office would be there tomorrow. You didn't have to worry about it being gone, whereas with MTurk requesters they show up they put out some work and then they just disappear. So then you just keep checking for them, hoping they'd come back and they never do...*⁶

4. Ibid.

5. Two study participants referenced to Panos Iperiotis' work as flawed. The two participants claimed he offered minimal compensation for HITs, and the more serious turkers would not respond to him as they found his HIT offering too low. Those two suspected that he found that people engage with AMT more casually simply because his HITs did not draw serious workers. Workers mentioned that only American workers are allowed to participate now because Amazon deposits only to U.S. registered bank accounts, thus invalidating, in some ways, Fort and Adda's claims on international workers as being relevant to the current condition of workers on AMT.

6. This response came from an individual who later joined a class action lawsuit against a major crowdsourcing firm, for which documents from this interview were demanded under third party subpoena.

Facebook

The 7 a.m. alarm sounds. Groggily, she swipes the phone alarm off. Through puffy eyes, she thumbs the familiar constellation of clicks and drags to Facebook. Her newsfeed is cluttered with last night's events. Swiping her thumb down, she briefly scans images of people she knows. Posts vary from images of women—old friends of hers—in line for a downtown bar, hands on hips, elbows jutting with lips ever-so-slightly pouted; a coworker of hers, someone she hadn't seen for seven years, made a defamatory gun legislation meme; her three-year old niece baking cookies. "Oh wow, my roommate from three years ago just got engaged to..." A 7:20 alarm sounds, jolting her from her activity. She stretches and jumps out of bed. Fumbling to get dressed, she replays in her mind these images amongst smattering of minutiae.

Throughout the day, she would grip her phone in her pocket. She pulls it out on her way to work, settling it in her palm as she leans her head against the bus window. Whenever she receives a reassuring vibration, she resists immediately opening her phone. She tries not to look at it so often, partially to save up the notifications for binge reading, and partially because she doesn't want to be one of "those" people. She kept the phone in the top drawer of her desk, so that she could discretely check her phone when her coworkers were around. But, why did she stop herself? Checking Facebook was fun. She felt less bored or lonely when she could keep up with what was happening in the world.

When Facebook opened up to all universities seven years ago, she had been a college freshman who liked to think of herself as an early adopter of new trends. She sent friend requests to practically all her classmates, along with her entire family and every friend she could remember from childhood. Now, as a result, her list of friends contained over 1,500 people. Her newsfeed was a never-ending cascade of updates, trending topics and memes from people she knows or knew once. She started to follow news and blog pages to add some diversity to her newsfeed. Being on Facebook made her feel close with her loved ones in cities she never had time to visit. With Facebook, she felt she was really there.

A job had brought her to this city four years ago. She was grateful for her work that kept her relatively fulfilled. But in those four years she hadn't met anyone new that she stayed in touch with. Her work was demanding, leaving little down time, let alone the energy to go out. She was content with living her social life online. Social media kept her connected.

Existing as a successful platform for networked interaction, Facebook's stated mission is "to give people the power to share and make the world more open and connected."⁷ Danah Boyd and Nicole Ellison's work on youth and social media through the mid-2000s found that social networking sites (SNSs) such as Facebook "represent" approximately 67% of American young adults, as of 2007, primarily for the purposes of socialization and identity construction.⁸ SNSs allow individuals to keep in touch with pre-existing offline contacts for relationship maintenance, as well as make new contacts based on common interests.⁹ Nearly a quarter of time spent by users online is spent on SNSs, Facebook being one of the most widely used of these types of sites.¹⁰ Facebook was originally created in 2004 as a networking site for college students. The platform's rapid growth and immense popularity has intrigued scholars with an interest in this new form of networked communication technologies for reasons ranging from identity formation in teens and young adults to investigation of its claims as a platform encouraging power to connect in radically different ways.

7. Pew Research Center, *Internet and American Life Project Post Election Survey* (November 14, 2012): accessed March, 2013, <http://pewinternet.org/Reports/2013/Social-media-users/The-State-of-Social-Media-Users.aspx>

8. danah boyd and Nicole Ellison, "Social network sites: Definition, history, and scholarship" in *Journal of Computer-Mediated Communication*, 13.1 (2007).

9. Ibid.

10. Ibid.

Anything that happens can be disseminated to a large number of geographically dispersed people instantly, not just through written text, but also through images and videos. Both data that is considered public, such as an individual's gender, age, education level and lifestyle preferences stated on their profiles, and privately generated user data and individual user behaviors, such as click-throughs and general traffic, are captured by the organization and sold to advertising companies to target users, generating more corporate revenues for Facebook.¹¹ It is clear that Facebook's customers are those who purchase this data while those who produce this value do it essentially for free and solely because they are driven to connect with other people—though it must be noted that this does not happen completely for free, as users do get the minimum for the production of such value, which is access to the software and the platform.

As such, Facebook can be seen as a more up-to-date expression of late-stage capitalism as it exploits and exacerbates the dissolving boundary between public and private, labor and leisure. By altering the time and space in which social practices occur, certain conventions surface while others remain hidden. People begin to understand the world as constantly “plugged in” and interact accordingly.

Of course, Facebook can be used subversively. In revolutions around the world, Facebook has been used as an effective tool for supporting and sustaining mass protests and civil disobedience actions. It allows people with interests and

11. Christian Fuchs, “Privacy on Facebook,” *Television, New Media*, 13(2) (March, 2012):139-159.

similarities to find one another despite their geographic location. Facebook remains a proprietary platform, whose owners have complete control over the digital life of hundreds of millions of users. These SNSs become increasingly monitored, as we have seen in cases where Twitter accounts have been turned over to authorities in investigations of revolutionary or radical activity. Indeed, exposure of the National Security Agency's widespread practices of data surveillance of Internet companies participating in the PRISM program—Google and Facebook, among others—have caused international outrage and weakened American diplomacy relations. As with all enterprises that make money from selling user traffic data, Facebook knows that its most valuable asset is users' participation. The kind of regulation and order the platform employs must be very subtle.

III. THEORETICAL FRAMEWORKS

The following expounds upon current ways of exploring online work from a neo-Marxist perspective and points to instances in which these theories fail to address the full picture of online activity. I use Bernard Stiegler's concept of individuation and its primary components—speed, sensation and crisis—to address the shortcomings of neo-Marxist theory regarding situations of life, labor, leisure and exploitation in cultures using networked communication technologies.

Specters of Marx and Immaterial Labor

Building on the Marxist concepts of class struggle, labor theory of value, exploitation and alienation, I will begin my discussion of Marxism with the neo-Marxist branch called autonomist Marxism, which has a great deal to bear on the thesis at hand.¹² The autonomists were a group of Italian socialists that emerged in the 1960s and '70s from communist workers movements, in conjunction with the Situationists and student movements, and grew stronger as other leftist movements in the '70s were perceived to have failed. It is, in many ways, still going strong today under different names. The autonomist branch of Marxism is unique in its understanding of resistance from below—not in the form of active protest, but in quotidian circumvention and evasion of the activity of capital. As autonomous Marxism came of age—at roughly the same time as the industrial factory floor was emptied into other environs of work—it came to define

12. In Marx's *Capital* and the *Theories of Surplus Value*, he discussed what he perceived as imperfections of classical theoreticians of political economy, particularly Adam Smith and David Ricardo. In the three volumes of *Capital*, Marx outlined his related conceptions of value, labor, profit and exploitation. The value of a product is only determined by the cost of the labor put into making or procuring that product. Labor is the activity of producing value. Labor power, on the other hand, is the physical and mental capability of a person to produce value that has not yet taken place. Surplus-value, or profits, are generated when workers' labor exceeds that which is necessary to produce a given product. Capitalism harnesses labor power through appropriation of workers' surplus value and allows for economic exploitation, or the act of using another person's labor without adequate compensation. This allows for increasing profit and, as such, is the basis of capitalist accumulation. Marx thought that once the workers understood the reason for decreasing profits and understood this exploitation, the capitalist system of accumulation would be overthrown by workers.

In this system of capitalist appropriation of surplus value, there was no longer any sense of a worker finishing an entire product for his own use or enjoyment. Drawing heavily from his study of Hegel's concept of *spirit*, which results in rationality proceeding in dialectical fashion from ignorance, Marx declared this type of human activity not only to produce objects for oneself, but also to choose one's life trajectory was important to human subjectivity. He argued that in the capitalist system, the human spirit is imbued with commodity fetishism, and ascribes economic importance to the subjective and abstract dimensions of life. This mindset that privileges economic value structures in individual lives, from their activity, to their relationships with one another, resulting in alienation. In this system, Marx argues, the manipulation and management of production and labor is a constant contest between classes, which inevitably involves conflict and violence.

“immaterial labor” as the production of intangible products that encapsulate the subjectivity of the individual, through exploiting cognitive processes, knowledge work or desires. This type of labor is indicative of the current stage of human economic existence. It structures post-industrial societies marked by late-stage-capitalism in which labor no longer produces things, but instead produces desire in consuming subjects. In current iterations of this notion of immaterial labor, capitalist appropriation, cultural production and circulation of information are promoted through embedded technological apparatuses.¹³ What distinguishes this autonomous Marxist concept of immaterial labor from theories of post-structuralism, knowledge work, or a creative class is its link to ideas of autonomy and struggle.¹⁴ It underlines the ways in which corporations are no longer interested in manufacturing material products and augmenting desire for these items. Instead capital increasingly seeks to monetize life, time both inside and outside of work and especially, as I will discuss further later in the thesis, attempts to monetize life through quantifying communicative encounters. Autonomous Marxists also emphasize the ways in which the worker’s desires exceed, challenge and escape corporate control. As capital attempts to constrain resistance within the limits of profit, it leads to persistent proliferation of struggle. These resistances push capital forward in attempts to dismantle

13. Tiziana Terranova, *Network Culture: Politics for the Information Age* (London: Pluto Press, 2004), 7.

14. Facets of post-structuralist theories, for example, Jean Baudrillard’s “simulacra” which holds that there is no concept of reality as we understand it and “simulation” in which nothing can be distilled to its “real” origins and denies critique and analysis. The other side of this coin, the idea of knowledge work as emergent cognitive work, and a creative class from Mosco and McKercher’s 2007 work “Theorizing Knowledge Labor” recognizes boundaries that have been, even now, erased.

opposition by deploying new technologies, altering organizational forms and seeking new possibilities for anticipating profit, which generates conditions for new conflict and struggle. These resistances push capital forward in attempts to dismantle opposition by deploying new technologies, altering organizational forms and seeking new possibilities for anticipating profit, which generates conditions for new conflict and struggle.

Before getting further into the discussion, we must observe that many have found fault with the term “immaterial labor” because the work that is done always has some material outcome or affects material in some way. For example, the individuals uploading videos they have made to Facebook actually enact changes in the materials of production. First there must be the hardware they use to capture the video and the interface that allows them to upload the captured video to the internet, not to mention electricity for these devices to work, which in itself requires materials necessary to generate energy. Information resulting from their friends’ clicking on the video and subsequent traffic also take up space on servers somewhere and can be bought as a data sample. I will, however, continue to use the term “immaterial labor” to mean cognitive, affective and knowledge labor that occurs on online platforms as this discussion follows autonomous Marxist determinations of these types of labor that exist in post-industrial societies, and increasingly in networked communication platforms.

Continuing with the history of the theoretical work that has approached new types of labor in late-stage capitalism is Paolo Virno’s concept of “multitude,” which constitutes a notion of struggle within and against capital.¹⁵

15 15. Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000), 208.

As capital exists increasingly in all places, and has subsumed increasingly all segments of life, rebellion against it ensues at many junctures, from work to leisure, and from many parties, including workers and students and open source advocates proposing that capital adopt more sophisticated technology in order to transform society for the greater good.

To open the discussion of capital adopting more sophisticated technology, it is worth mentioning that a major tenet of philosophy of technology, often called the “paradox of the frame,” explains that new technologies do not succeed because they are efficient and useful, but instead become efficient and useful because time, energy and capital are invested into them.¹⁶ Implicit in this statement is the idea that only those with resources to spare will engage in this type of “technology building” and will often do it with their own purposes and interests in mind. This control over technology allows capitalism to expand into all realms, including that of the social. With boundaries erased, production and exploitation of labor happen everywhere indiscriminately. Even social relations are involved with relations of production, rendering any differentiation between social production and economic production impossible. In the face of this global economic reality Hardt and Negri maintain that this multitude must “in its will to be-against and its desire for liberation, push through Empire and come out the other side.”¹⁷

Tiziana Terranova follows up on the work of these theorists by applying it directly to the age of networked communication technologies and the ubiquitous

16. Andrew Feenberg, “Ten Paradoxes of the Philosophy of Technology,” *Techné* 14(1) (Winter 2010), 5.

17. Hardt and Negri, *Empire*, 218.

saturation of Internet use. In *Network Culture: Politics for an Information Age*, she defines “information culture” as “a meshwork of overlapping cultural formations” that “unfolds across a multiplicity of communication channels within a homogenized information space.”¹⁸ Information culture is inextricably bound to a set of processes—including differentiation and emergence, openness and structure—and politics that involve an active engagement with the dynamics of information flows.¹⁹

Terranova also emphasizes the way in which information culture is particularly involved with this autonomous Marxist concept of the “social factory” or the proliferation of information or communication on behalf of capital. Thus the social and communicative aspect of life itself becomes the site of reproduction of labor power. It fits to mention here also that critical theory from Marx himself to Adorno and Horkheimer, Dallas Smythe and others has argued that capitalism increasingly expands beyond labor into leisure time to strengthen peoples’ ties to capitalist frameworks. What is different, however in contemporary networked communication culture is the way in which technologies can now—and do—capture and exploit the desire for affective production and connectivity itself. Our Instagrams of the food we prepare and eat, interesting things we see in our daily commute, our casual hangouts with friends, illustrate how the desire to communicate and connect becomes data that can be mined and commodified. Terranova says of this process of quantifying desire, “The Internet highlights the existence of networks of immaterial labor and

18. Terranova, *Network Culture*, 3.

19. *Ibid.*

speeds up their accretion into a collective entity.”²⁰

Web 2.0 organizations such as Google, *Yahoo News* and Facebook, among others, currently use algorithms based on a number of statistics for analyzing metrics obtained from user activity in order to allow for personalization of users' pages, primarily giving them a taste of what they know and what they like.²¹ Again, the official stated mode of navigation in this activity is convenience and openness. The value users generate is a byproduct of their searches, leisure activities of seeking information on the web, checking in on friends, etc. By bringing this history to bear on the current era of techno-capitalism, one can illustrate that it is impossible to differentiate cleanly between play and work—between nonproductive leisure activities existing within the sphere of play and within the sphere of the workspace. Such a claim can be understood to mean workspaces expand outward into daily life to such an extent that labor is performed via phone in the train on the commute home or on email walking down the street. This expansion of the workplace and the incessant nature of labor performance is, in many ways, what the turkers and Facebook users in the study performed in conjunction with these interrelated phenomena of individuation, speed, sensation and crisis.

In his 2012 book *The Interface Effect*, Alex Galloway argues that post-Fordism today is a mode of production that makes life itself the site of valorization, much as Virno and Terranova described in their autonomist framework that includes the “social factory.” At present, this mode of production

20. Tiziana Terranova, “Free Labor,” *Digital Labor: The Internet as Playground and Factory*, ed. Trebor Scholz (New York: Routledge, 2013).

21. Eli Pariser, *The Filter Bubble: What the Internet Is Hiding From You*, (New York: Penguin, 2011).

turns seemingly normal human behavior into monetizable labor.²² This normal behavior is the unconscious, acquiescent affective labor being carried out within Google's page rank algorithm or within Facebook's API. These activities are related to the work people do on Amazon's Mechanical Turk as willing laborers on the platform—crowdsourcing and microtasking—as both represent work or labor exchanged for a low cost. In the case of turkers, actual money is exchanged. On Google and Facebook, one pays for these free services by handing over one's privacy.

Individuation

...the real possibility challenging us today, appreciably practicable, is the last evolutionary stage of technics: possibility of an artificial human being who is neither 'last man' nor 'overman'.

Technics in Time II: Disorientation, 149

Individuation, in its most essential definition, is generally considered to be one or a mixture of two interrelated things: 1) The development of the individual from the general or universal, and 2) in Jungian terms, a therapeutic psychoanalytical process in which the individual is developed from an undifferentiated unconscious.^{23 24} Stiegler's approximation of individuation might at first resemble a confluence of these two, but is a negation of both. In his philosophy, man and technology are in ever-evolving constitutive

22. Alex Galloway, *The Interface Effect*, (New York: Polity, 2012), 28.

23. Edward Regis, "Aristotle's Principle of Individuation," *Phronesis*, 21(2) (1976), 157-166.

24. Carl Gustav Jung, "Psychological Types," in *The Collected Works of C.G. Jung*, trans. and ed. Gerhard Adler and R.F.C. Hull (Princeton: Princeton University Press, 1971), *Volume Six: Psychological Types*, trans. and ed. Gerhard Adler and R.F.C. Hull.

relationships.²⁵

Stiegler's notion of individuation relates human cognition to the advent of writing that allowed communication over distances. Thus, the existence of humanity as a communicative organism is imbued with the technical. With the help of proof from anthropologist Leroi-Gourhan, Stiegler argues that humanity itself originates in its use of technology, specifically tools, which subsume the non-human or the non-living material into human existence.

Along these lines, Stiegler delineates that an individual can only be thought in relationship to a larger collection of people with varied histories and traditions, which he calls a "collective individual."²⁶ The *self* is constituted in its relationship with, or orientation towards, an inherited collective tradition, in which a plurality of *selves* interact with and enact one another's existence. Here it is easily understood how Stiegler's notion of individuation includes a *self* that is essentially a process, and not a state. This ever-changing, constitutive process functions so that one becomes indivisible with the rest of one's collective tradition.²⁷ This concept of the collective individual indicates that as humans are specific in their interaction with one another through apparatuses of language, writing etc., humans and these technologies of communication, storage and retrieval are not extrinsic to one another, but intrinsic and inseparable. Later, I will explore how culture is generated from the interaction of the human and the

25. Stiegler's philosophy is influenced by philosopher of science Gilbert Simondon, whose view of individuation sees all existence, organic and inorganic, material and immaterial, as a process that continues without end.

26. Bernard Stiegler, "Desire and Knowledge: The Dead Seize Living," *Ars Industrialis*, accessed October, 2011, <http://www.arsindustrialis.org/desire-and-knowledge-dead-seize-living>.

27. Stiegler, "Desire and Knowledge."

technical, in keeping with this tenet of Stiegler's philosophy.

Technical systems, or simply put "technics," hold a prominent place in Stiegler's notion of individuation. As individuals constantly become something else in relation to their social milieu, the technical system also evolves in conjunction with these emergences of becoming, thus invalidating purely structuralist explanations of social and individual individuation. Stiegler posits that techno-genesis, or the idea that humans are human as a result of their relationship to technology, is absolutely fundamental. Techno-genesis, he argues, necessarily must precede social individuation, "socio-genesis," or the idea of individuation with single cultures.²⁸ Thus techno-genesis, in Stiegler's philosophical framework, is the very basis for culture. As knowledge and memory are made exterior through communicative tools and practices, these "products" of exteriorization are generated, elaborated upon and worked with while configuring culture, or social groups based on tradition, politics or even artistic affinities.

Stiegler privileges writing and communication technologies as retentional apparatuses that allow the individual to become a social being. In explication of his reasoning, it is first useful to explain Stiegler's separation between types of retention. Primary retention is that which happens immediately—for example, one experiences a cat crossing one's path. The event can be experienced with the physicality of the body in connection to cognition nearly instantaneously as the

28. Bernard Stiegler. *Technics in Time II: Disorientation* (Stanford, CA: Stanford University Press, 2008), 2.

event happens.

Secondary retention is marked by this present of primary retention passing and can be understood to exist as the interwoven threads of memory or cognition. Then, following the same example, one knows in one's mind that a cat has just crossed one's path. There is a sort of mental image that can be recalled after the event has happened.

Tertiary retention is a materialization of experience resulting in an exterior assemblage of memory and technology—an exteriorization of the secondary retention. Again, following the example, one can tell a friend using one's voice that a cat has just crossed one's path. Material culture, to the extent that it informs living, determines learning and activities related to memory, according to Stiegler. Thus, tertiary retention precedes the constitution of this world as *the* world as we understand it. We understand the world through these physical traces of tertiary retention—language, writing, photographs, video and even blogs. In the above example with the cat, one could as easily write an email to a friend or post a status on a social network of choice that one has just seen a cat cross one's path. As the flows of primary and secondary retention become spatialized into tertiary retention, individual time becomes collective time.²⁹

Throughout the history of alphabetic writing, mnemotechnical systems, these technologies of communication that are retentional apparatuses of memory, permit a conception of time and space that unfurls in a linear history. Orthographic writing is indicative of a past that one has not necessarily lived. Ubiquitous computing, conversely, happens within the onflow of "live" media

29. Bernard Stiegler, *For a New Critique of Political Economy* (Malden, MA: Polity, 2010), 9.

that are both situated amidst and constituted by physical activities. The digital is possible by the onflow of physical life. In turn, the digital structures physical life.

Stiegler emphasizes the permeability of individual consciousness to the expansion of information and communication technologies and the subsequent disappearance of the interior.³⁰ This view of the interaction between humanity and technology calls into question ideas of 'real time' and 'face to face' and allows for a discussion of capitalist territorialization of these technologies.

In summation, these flows of retention, technological apparatuses and exterior products exist as mutually constituted memories. These processes and systems are of interest as we consider how contemporary networked communication technologies exist within the individual and social milieu in ways that might be different from periods defined by oral or orthographic knowledge. Retentional apparatuses, techno-genesis and socio-genesis can be applied to regimes of production and consumption related to networked communication technologies in determining how culture is constituted in these situations, particularly in relationship to technology being a part of the social milieu. Less obvious, but essential to my thesis, is that this notion of individuation gives certain affordances that allow the development of a new mode of critical inquiry into such cultural practices.

30. Bernard Stiegler, *Technics in Time I: The Fault of Epimetheus* (Stanford, CA: Stanford University Press, 1998), 55.

Speed

Différance is itself also a conjunction of space and time more originary than their separation. It is in this sense, then, that différance will, perhaps, have to be thought as speed.

Technics in Time I: The Fault of Epimetheus, 146

Philosophy concerns itself with questions—what it means to live, how one might live and seeks to elaborate on the implications of these questions in an attempt to understand the human in relationship to the world it lives in. Stiegler's philosophy is singular not only in the way it ties culture to exteriorized products of memory, but also the way it ties what it means to be human to human experiences of time. Stiegler's notion of individuation is thereby connected to that of speed.

The notion of speed in Stiegler's philosophy is related to that which makes humans human. Humans understand time through interactions with tertiary retentions. These tertiary retentions are at once spatial and temporal and come before the human distinctions of space and time. Tertiary retentions or products discretize or break apart into segments notions of space and time from the onflow of lived experience. In turn, humanity stands alone and derives its unique position in the world from its ability to understand the world outside of each individual's specific experience of the world. In using prosthetics or tools of communication and other technologies, humans are "liberated."³¹ Thus this prostheticity, the ability to reach outside the self via exteriorized consciousness in the form of writing, tools, etc., frees the consciousness from what is at hand or directly sensible and available to humans, and opens it to the rest of the world. In

31. Stiegler, *Technics in Time I*, 146.

being open to the world, people search for meaning. An important component of Stiegler's notion of speed and experience of the world is the concept of *différance*. Stiegler draws from Derrida to say *différance* means both "differentiation and deferral, a spacing of time and a temporalization of space."³² This notion of spacing concerns the forces of differentiation and thus the creation of binaries and hierarchies that determine meaning and constitute understanding.³³

Speed, according to Stiegler, is this mobility via prostheticity that allows humans to experience a relation of space and time through exteriorized tertiary memory. This allows a rupture or a delay that permits secondary memory's reflection on events that happen in primary retention and strengthens concepts of self and other, interior and exterior. This conception of space and time, however, is directly related to sensory organs interpreting products of tertiary memory. The notion of speed that precedes all notions of the space of the world and the time of life, Stiegler maintains, must be thought not in terms of a binary human and technical, but as one and the same. Stiegler draws again from Leroi-Gourhan to assert that processes binding the human and the technical dig deep into our evolutionary past from the incorporation and transmission of genetic

32. Stiegler, *Technics in Time I*, 141.

33. We must observe that both Richard Beardsworth and Mark Hansen point out that Stiegler departs significantly from Derrida's notion of *différance*. Derrida asserts that *différance* is more originary than technics, or that it provides a system of sorts that allow differences to emerge and importantly, it cannot be changed by new epochs of technical writing. This writing is made possible by the movement of *différance* that precedes it. Derrida seeks to preserve the ontological difference between the technical synthesis of time and *différance*. Stiegler, on the other hand, values technical synthesis in his explanation of *différance* as the relation between the individual and the group made possible through technical synthesis. For him, technical synthesis is essential in the function of imputing difference.

code to the advent of secondary and tertiary retention.³⁴ It is the act of the sense organs, which are themselves tools that were incorporated into the human body long ago, which both confront and relay affects to secondary retention to make the onflow of life discrete and productive *grammēs* from which consciousness emerges. Grammatization will be discussed further in the next section on sensation.

Humans have this capacity that make speed and mobility possible. This allows a level of delay between primary and secondary retention from the previous discussion. Stiegler goes on to explain in *Technics in Time III*, when new technical apparatuses admit conceptions of time that are considered “media live” or “real time,” these effects generate a profound distortion as the differing mechanism of *différance*. Space and time are no longer encountered as discrete concepts that can be reflected upon in the consciousness. Human sensory perception or affect is forced to meet the onflow of mediation, messages and tertiary products that have been composed for one reason or another. As this proceeds, human primary retentional flows become that of these messages. Stiegler maintains, somewhat radically, that these new technologies that allow this conception of time harbor a threat to *différance*, and thus to understandings of difference that allow reflections to be made on social categories, and distinctions to be made. This industrialized sense of time in which the delay happens on the side of the technical, or the machinic apparatus. Stiegler’s conception of *différance* as it operated within systems of orthographic writing

34. Stiegler, *Technics in Time I*, 134.

allowed sensation and sense-making within the human through the flows of primary retention and secondary memory.³⁵ As such, technologies that allow or promote “real time” advance a “detemporalization” of time that operates differently from the delay experienced in writing and reading. This detemporalization is a disappearance of the deferral or difference from the time of life. Stiegler talks about this phenomenon happening most clearly in the era of “live” televised news coverage. I argue that newer communication technologies are fundamentally different in their inscription of time and life. As people surf and search or even work online, the sense of time they are afforded is not theirs. It is modulated inside the machines accessing the Internet and transformed through the Internet connection. Their experience is cut together as real time, as they seem to be choosing what they watch. But their sense of time is that of the machine, as they interact with mediated products by individuals composing those messages for various reasons. This is where I attempt to update Stiegler’s notions of individuation and speed. Stiegler claims the speed of televisual “live” coverage is the basically same of that which happens in networked communication technologies. The field study analysis section of the thesis shows how a wider range of users’ affective capabilities are engaged because of the speed of networked communication technologies. The sensations of sight, sound and emotion engaged with televisual “live” coverage are accessed with networked communication, along with tactility and movement. Thus people are inscribed in the medium, and open to processing by it.

This differential of speed happens in digital communication technologies,

35. Stiegler, *Technics in Time III*, 126.

Stiegler argues, because the delay between the human and technology is collapsed. By rendering the secondary and primary retention as simultaneous, it conflates affect and consciousness with the temporal object or the tertiary memory. It confuses embodied and precognitive retention with pure image consciousness. This is problematic for Stiegler, as he describes the biggest threat brought by this conflation of primary and tertiary flows to be a short-circuiting of the past, or a disindividuation with culture programs.³⁶ In these platforms for online interaction, we can be “telepresent” in numerous places at once. We are thus allowed new differentials of speed in which we experience different things, people, places, feelings, etc. in ways that weren’t possible before. We are allowed to experience remote situations as they happen to us, or as they seem to happen to us through newsfeeds and constant content generation. We are allowed to choose our experiences of audiovisual culture and, to some degree, reflect on the onflow of networked communication culture. The audiovisual experiences operate at the level of primary retention because it too operates below the level of phenomenological consciousness. I will now explore what it might mean to meet these online audiovisual flows with one’s unconscious and how this short-circuits the past.

Prior to the industrial revolution, human society developed through the individuation of individuals and cultures reproducing historical tradition and what Stiegler calls “programs” or normalized ways of making sense of discretized grammēs of difference in consciousness. This process of

36. Stiegler, *For a New Critique of Political Economy*.

programming always involved technics and exteriorized memory to determine what had already happened and give context and meaning to the onflow of life.

In the years following the industrial revolution, the increasing ubiquity of technical apparatuses has eradicated programs of tradition and history because the speed of life has made it such that the delay allowed by *différance* does not entail reflection on something that is separate or at a distance from itself. Rather it becomes a function of the senses, or the precognitive, constantly meeting the speed of life that is generated by communication technologies. Thus, the individual's ability to process and appropriate the effects brought about by changes in the way technical apparatuses appropriate the flow of life is diminished.³⁷ If the evolution of humanity with technologies has always occurred via subordination of existing ethnic programs to new programs, technologies today completely subvert programs. This has further reduced the ability of individuals to augment or appropriate the changes brought about by technologies. To understand the change, consider the transition from writing to mass media. With orthographic writing, collective interaction with the development and synthesis of symbols generated a community of individuals or collective culture that were contingent upon individuation for its survival. Mass media, of say, televised "live" news coverage, habitually synthesizes experience of world events so that one experiences these messages as if these were his or her world happening to them at the level of the onflow of life.

More than other technologies, networked communication technologies,

37. Stiegler, *For a New Critique of Political Economy*, 58.

with their global reach, frame time for us and give us a surrogate temporal object in whose reflection we become dissociated with the flux of our own consciousness. At the same time, by opening consciousness onto the past, onto non-lived tradition, onto the otherness of that which does not belong to the experience of the consciousness, networked communication technologies in conjunction with temporal objects demonstrate the contemporary manifestation of the interdependence of the human subject and the technical other. In some ways this contemporary manifestation is not so different from any other type of communication that allows messages to be received over distances and time. Writing, for example, is concerned with the idea of allowing reference to a collective past that has not been lived. It is a way to exist at a spatial and temporal distance from culture that one has not lived and become acquainted with it through immersion and conscious reflection. But when we consider this idea of the collective past or collective individuality being influenced by the Internet with its differentials of speed, we see how we thereby become who we are through our bare sensory interaction with this medium and related apparatuses.

This notion of speed is central to the argument that 1) we no longer act within strict categories in our online life because we have at once sensed or met affective onflows of networked life but consciousness is not allowed the necessary delay to appropriate and make sense of these onflows accordingly and 2) the digital allows a discretization of practices that could never have been reflected upon before. This also shows the potential for radical new social formations and evinces the need for revolutionary methods of exploring these new socio-technocultural formations.

The last section of the thesis will analyze how interviews engage the sensation of speed and operation of différance on the side of the technical in a number of ways. I will particularly look at the way in which people regard their own tertiary traces of the onflow of life online, through the work that they consciously do on Amazon's Mechanical Turk and through Facebook as the platform essentially provides a log of online traces to shape and be shaped by user's technological life. Apart from this, the way in which people understand time when engaged on these platforms in contrast to when they are not, will be discussed. As this general phenomenon of speed flattens the time between the onflow of affect and consciousness, notions of difference or categorization begin to erode. The pressures that people feel to work and to play in a timely fashion also shed light onto how this notion of difference manifests in the common notion of blurred boundaries that result from networked communication platforms.

Sensation

Knowledge is the experience of the sensible, for experience is what can be transmitted as the experience of the singularity of the sensible, that is to say, to the extent that experience is always itself singular and unexpected.

Stiegler, "Desire and Knowledge: Dead Seize the Living"

Based on the arguments developed in the last sections, the world is increasingly met with the infinitesimal operation of primary retention as we primarily use audiovisual networked communication technologies. In addition to being continuous (not discrete) and precognitive (non-conscious), this communication, capture, storage and retention are also grounded in the body.

Important to my argument regarding individuation and online labor is Stiegler's concept of "general organology." Stiegler defines this notion of general organology as relations of individuation, which connect the various types of artificial and living human organs, from the brain to the skin, to social organizations in which they evolve and transform themselves.³⁸

The notion of embodied knowledge that radiates outward into political thought is of interest to this project. Bergson's physiology of perception, which speaks to the reductive way humans consciously interact with the world, in conjunction with Brian Massumi's notion of affect, which emphasizes the human body as an echo chamber that constantly reworks and transforms incoming messages, sensations or "intensities," both provoke a sense of knowing generated in the preconscious.³⁹ The conscious world of secondary and tertiary memory seems almost untethered to that of the onflow of life, the precognitive or the preconscious. These are closely related to a notion of 'bare life' in Nigel Thrift's *Nonrepresentational Theories*, which essentially states that the half-second it takes for sensation to register in the body is imbued with difference and can be accessed indirectly to bring about new and interesting combinations of affects, concepts and actions that might result in innovation and change.⁴⁰ Thrift's theory makes affordances for an embodiment of concepts, which allows for the

38. Stiegler, *New Critique of Political Economy*, 35.

39. Brian Massumi, "The Autonomy of Affect," in *Parables for the Virtual* (Durham, NC: Duke University Press, 2002), 5.

40. Nigel Thrift, *Non-Representational Theories: Space, Affect, Politics* (New York: Routledge, 2008), 166.

'performative' that draws on the affect of people. Here, one must note that in addition to the performance of the body, in say, dance or acting, the 'performative' in a project can play with the sensations or affects imparted to the viewer through aesthetic choices that might work to assemble with the viewer on the level of the precognitive or missing half second of 'bare life'. The idea of the performative and the precognitive speaks to the possibilities of what a human can be and the ways in which they can interact with the world. It also points to how the audiovisual grammatization process is possible.

Stiegler explains how this process is possible in digital technologies by drawing on Philip Agre's notion of capture in his 1994 work "Surveillance and Capture." Agre claims that the systematic production of these grammēs of action or discretized digital action are the fundamental building blocks of data that are both necessitated and determined by computer-mediated modes of production. This notion of "capture" is in contrast to the modes of surveillance that conditioned bodies through modernity, as Michel Foucault argues. Following this, Stiegler refers to these technologies of tertiary retention or exteriorization of memory under the banner of "grammatization," that was referenced briefly in the previous passage.

Stiegler appropriates and updates Derrida's "grammatization," which essentially involves breaking of the flow of life into discrete elements. This process can include any constitution of discrete words or meanings from language to technologies for grammatizing audiovisual perception, discretizing the flows resonating in the organs of sensory perception. This allows the onflow, or a portion of it, to be reproduced and reflected upon. All cognitive and affective functions are grammatized and made discrete in secondary retention or

consciousness. Grammatization can be understood to contribute to the fact that the functions of conception, production and consumption are grammatized, and incorporated into an apparatus devoted to the tertiary retentions, controlled by primary and secondary retentional systems.⁴¹ When considering how this links to political economy, we can see that in the 20th century, the processes of grammatization of affect and cognition into exteriorized gestures of labor for automatic reproduction were made more effective with the advent of machines and technologies for reproducing the visible and the audible. These audiovisual technologies increased possibilities for discretizing perception and thus, allowed control of bodily affective activity.⁴²

I am interested in sensation and grammatization as it manifests in the reported aesthetic experience of the two platforms in question in the field study. I will analyze responses ranging from how one feels physically and emotionally as a result of online interaction on them, to the ways in which they use the “space” of the platform to further their goals. One will note that this is not necessarily directly gauging the “precognitive” because respondents mediate their sensations and thoughts through spoken conversation. This, of course, is true. However, there is no way to directly understand the precognitive without mediation. This is one of vast arenas for possibility in this discussion of networked communication technologies and human life.

Here my argument draws on Patricia Clough’s piece “Digital Labor and Measure Beyond Biopolitics” in the *Digital Labor* anthology in which she

41. Stiegler, *New Critique of Political Economy*, 11.

42. *Ibid*, 33.

described notions of measurement that arise from George Caffentzis' disagreement with Hardt and Negri's claim that the value of immaterial or affective labor is immeasurable.⁴³ I seek to prove, among other things, that capitalism has sought and still does seek a way to modulate what, at first, seems chaotic. Similarly to Clough's project in *Notes Toward a Theory of Affect-Itself*, the study at hand seeks both to look at, and more importantly, look beyond the labor of general intellect to a maneuver of affect in a biopolitical society where affect refers to a "preindividual nonconscious, noncognitive and asubjective bodily capacity to affect or be affected."⁴⁴ In the aforementioned work, Clough and her colleagues explore the technical frame of affect, starting with the technologies with which Massumi measured affect as a fraction of time before conscious experience. This technological enhancement or measuring device, she argues, is overlooked by Massumi. Regardless, this measurement taken by an instrument is crucial to Massumi's examples of preconscious affect as an exteriorized technical object—a sort of tertiary retention that effectively moves affect towards consciousness—virtuality towards actualization. Affect is difference in potentials and, as such, it cannot be made real in any sense of a totality, in order to be studied from the outside by capitalist interests or others. It can only be actualized through capturing or framing the onflow of the virtual potential. It might be possible to imagine the body of affect as a technical assemblage or a technology of measurement, where an ontological process ever in-becoming can never be

43. Patricia Clough, "The Digital, Labor and Measure Beyond Biopolitics," in *Digital Labor: the Internet as Playground and Factory*, ed. Trebor Scholz (New York: Routledge, 2009), 113.

44. Clough, "The Digital, Labor and Measure Beyond Biopolitics," 114.

fully captured.

This is interesting to understand in terms of Stiegler's notions of difference, speed and retentional apparatuses. As human relation with technics allows faster speeds that eclipse notions of time, we see the world unhinged. As computer processing speeds and networked connections become quicker, individuals are able to interact with actualizations of virtual selves that have very real consequences or opportunities for human subjectivity.⁴⁵ One can see, for example, how individuals sometimes, perhaps reactively and instantaneously, interact with a friend on Facebook, immortalized for all to see via mechanisms of tertiary retentional apparatuses. This can of course be monitored or measured, as can traffic or traces that result from mere navigation online. What cannot be monitored or measured, however, is the constant onflow of life, that of primary and secondary retention. Even that which is caught in the affective precognitive, is that which we cannot really know without technics, but is also that which creates difference within us, nonetheless. Here we can see resonances in Clough and Thrift with Stiegler's notion that we live in a speeded up world where friction is lost and everyday life skids along on the plane of velocity.

Stiegler's process philosophy of distributed agency claims that technics are an originary part of humanity, which makes it easy to see why theorists are wary of the resulting capacity of technological transformation to capture and manipulate affective potential. As capitalism seeks to capture every excess that is produced, when individuals interact with these technologies, labor can be considered the work of affect.

45. Here virtuality, means those traces of the onflow of ones' self and actions that can be accessed and in some sense, made manifest, through networked communication technologies.

It is worth mentioning that the notion of the ‘missing half second’ or the ‘precognitive’ of Massumi’s and Thrift’s philosophies fit with Stiegler’s ideas of individuation in relation to retentional apparatuses and memory in sort of an awkward association. We can see that primary retention could be understood as the absolute sensing the onflow of life. This idea that primary retention is that of affect directly meeting events can be complicated by the notion of the missing half second that happens within human sense-making organs that imbue primary retention with difference at the moment of ‘direct’ sensation.

Crisis

The grammatization of gesture, which was the basis of what Marx described as proletarianization, that is as loss of savoir-faire, is then pursued with the development of electronic and digital devices to the point that all forms of knowledge have been grammatized via cognitive and cultural mnemotechnologies.

Stiegler, For A New Critique of Political Economy, 33

The speed of life today gives online activity the same importance as it gives the physical world. Both are a constant encounter of flows. As previously iterated, in this situation, sense-making happens not inside cognitive apparatuses of the human, but on the terms of the machine—programmed by humans, of course—but also programmed by and for the sake of capital. At the same time, the aforementioned function of speed in networked communication technologies causes ruptures in distinctions and difference, once strengthened by the function of speed in orthography. This contemporary function of speed collapses or flattens the way humans interact with and understand the world. This includes a breach in barriers separating many commonly held ideas such as the distinction between public and private, reason and emotion and even notions of what it

means to be political. This modulation of difference and speed, is explicitly a capitalist maneuver to incorporate the once “radical potential” of networked communication technologies to cause difficulty and strife at every encounter. Increasingly neoliberal networked communication technology hides the need for strife against, or for counter-action to, the modulation of our very subjectivity through diffusing and reworking notions of time and power.

This section covers how life as a historical development of the modern or Cartesian “self” is abstracted or has become blurred in contemporary culture. Relating this mastery of the flows of difference to the project at hand, we see that networked communication technology is intertwined with neoliberalism, as it works to foster modes of production and consumption for capital. The consumption that occurs on these online platforms happens in a series of affective fields. We see that in cultures of networked communication technologies, information can become available to consumers instantly, through the APIs of Amazon, Google or Facebook. Along with greater access to information, access costs have plummeted. Linkages and associations are automatically generated for the consumer. Information becomes continuous and ubiquitous. Information technology offers continuous interactivity and more reflexivity. The autonomist Marxist notion of struggle against or promoting resistance against capital has become less of a phenomenon because there is increasingly nothing left to overtly resist.

It must be made clear that this is a specific kind of reflexivity or retention of all three types that both promotes and inhibits exchange between producers and consumers. Primary retention, the unconscious onflow of events, instigates performances on its own at the interface. More often, capitalist design of

technology tries to modulate against this tendency by introducing complex mediations as it attempts not to simply approximate being-in-the-world but enhance it, by constructing new kinds of affinity and participation, new communities of all kinds.⁴⁶ It seeks to colonize primary retention as well as secondary retentional flows. Tertiary retention makes capital's desire for capture easier than ever, as now these affective activities, which stem from secondary retention or consciousness, can be tracked. However it fits to note that these metrics are simply quantitative, not qualitative. This quantitative nature, in itself, opens opportunities for disruption of the process of capitalist intervention.

Inevitably this emphasis on the undertow of thought and decision and open training of intuition has led theorists in this field to pay much attention to affect. As Nigel Thrift says in his 2009 *Nonrepresentational Theories*, waves of affect are often born in these small spaces of time out of a series of deep expressive habits and out of different emotional intelligences.⁴⁷

It is no secret that capitalism today is a cultural capitalism, which includes altering the behavior of individuals over that of transforming matter. As social control has arguably moved from what Foucault called 'disciplinary societies' with its characteristic function of controlling processes of production of material things, among other characteristics, to the ubiquitous control of surveillance and advertising to control and promote consumption of individuals we see a change in what Foucault called "biopower," or the regulation of subjects in terms of their bodies. According to Stiegler in a 2010 interview, in contemporary culture, it is

46. Ibid.

47. Thrift, *Non-Representational Theories*, 37.

useful to move on to a related question of psychopower and psycho-technologies that Foucault didn't proffer.⁴⁸ Again, much as Philip Agre's notion of "capture" suggests, industry has been primarily involved with harnessing of attention, which he understands as the channeling of libidinal energy or desire and the progressive destruction of circuits of knowledge of how to live.⁴⁹ These circuits entail memory and knowledge across individuals and culture.

Mark Andrejevic's essay "The Work of Being Watched" updates this phenomenon for the contemporary situation, which incorporates communication technology into a livelihood of corporations that is now primarily interested in obtaining and sustaining an individual's interest in the brand it embodies rather than the products it makes. People appreciate a brand or a service for making life less complicated, while at the same time allowing the corporate entity behind that brand or service to monitor their habits, thus enabling the organizations to cater more appropriately to the individual in question.⁵⁰

This practice of blurring labor and leisure in networked communication technology differs from the age of cinema and television. Adorno and Horkheimer, for example, claimed in their famous treatise on mass entertainment and deception that the "culture industry," or capital's infiltration into mass entertainment and broadcast media to reproduce the conditions of production, created the idea of "free time" or leisure outside of work. The reason

48. Patrick Crogan, "Knowledge, Care and Transindividuation: An interview with Bernard Stiegler," *Cultural Politics*, 6 (2010), 159.

49. *Ibid*, 38.

50. Mark Andrejevic, "Reality TV and the Work of Being Watched," *Reality TV and the Work of Being Watched* (Lanham, MD: Rowman and Littlefield, 2003).

broadcast television did this, the authors asserted, was to falsely compartmentalize the lives of the masses and make them numb to critique of the entertainment industry or the methods of capital in general. At the same time this was a production made by the few and broadcast to the many. A viewer had to choose from limited options from the major studios or broadcast companies.

We can see how this is different in the age of networked communication technologies because leisure or entertainment is not created solely to reproduce the conditions of production, but has become the site of production itself. Many people feel they have more agency over what kind of media they consume because essentially anyone can produce content. Networked communication technologies are not catered to users demographically, per se, but the users produce their own content, customized by their click-and-search data.

Amazon, Google and Facebook have already broached the question of providing a convenient interface for connectivity to the public at the cost of privacy. The data that people produce in tier traffic on the Internet is not their own. The read-write culture of Web 2.0 allows the freedom to connect with technical images, knowledge with other people. By providing an API, managed access is granted. The particular crisis I investigate is that of labor and leisure and how these two notions, once so seemingly easily discerned, have been modulated to become not just two categories of life, but increasingly, as these relate to the autonomous Marxist concept of the “social factory,” to become one indiscernible from one another and from life itself.

Relating the blurred distinctions between labor and leisure to the notion of play is useful in this investigation because, while play and leisure are closely related, play engenders interaction, feedback and modulation that are

components of these blurred boundaries and capital's influence in these actions. Thrift argues that in play, there is a process of experimentation and performance that one can use to make sense of the world. Conversely, he states that capitalist prospects across the field of bodily and overtly affective experience as capital invests in interface designs intended to rework the very notions of the cultural world itself—political economy, labor, etc.—to produce emergent communities that either knowingly or unknowingly make every activity the site of production.⁵¹ While the processes in discussion are not necessarily always “play” in the sense of games, they are aligned closely with sensorial feelings of liberation and openness, of emergence and consciousness of desirable leisurely activity.

Alex Galloway in *The Interface Effect* makes reference to Manuel Castells' and Alan Liu's scholarship on the way capital has engaged a new sociopolitical terrain, generating new forms of flexibility, play, creativity and immaterial labor. These new forms, Galloway states, have superseded the older forms of control, discipline, hierarchy and bureaucracy, etc. This notion of experimentation or play derives from romanticism and thus gives this “leisurely” activity an eternal and vital importance. Schiller's *On the Aesthetic Education on Man*, Liu argues, offers a clear illustration of a dialectical logic that arrives at the concept of the ‘play drive’ in which man uses his full capability for creation with “unsullied authenticity, a tinkering vitality perennially springing forth from the core of that which is most human.”⁵² Galloway argues that in addition to this positive

51. Thrift, *Non-Representational Theories*, 28.

52. Galloway, *The Interface Effect*, 28.

conception of the idea of play, cybernetics, or the organizing theory of chaos of the last century, strengthen the concept of play that privileges homeostasis and systematic interaction. Thus people, actions and ideas are no longer distributed into neat categories for the interest of societal stability, they instead drift within networks characterized by action and reaction, interplay and feedback.⁵³

Through these examples primarily from Thrift and Galloway, one can see how capital attempts to create or colonize technologies that are able to meaningfully modulate along with the precognitive and the cognitive to impute its own intensities and transform unconscious sense making apparatuses of primary and secondary retention. By using technology to capture information about individual and collective activity, especially in networked communication technologies, capital then attempts to mold that activity from the cognitive of secondary retention onward.

IV. FIELD STUDIES ANALYSIS

The previous discussions of individuation speed, sensation and crisis show concretely how we can understand ruptures in culture in relation to networked communication platforms. I will apply the theories of Stiegler and other theorists, as they relate to online work and online life, and use them to assess the field studies conducted on Amazon's Mechanical Turk and Facebook. This field study exploration will show how the velocity of life and erosion of boundaries manifest in the lives of users, specifically as they experience these

53. Ibid, 32.

phenomena in terms of physical affect, perceptions of time and self and their cognitive and economic ties to these platforms. In previous sections I have shown—using the framework from Stiegler and other theorists—how Web 2.0 platforms show a distinct break from previous communication technologies' effects on societies. In the following sections I seek to demonstrate how the platforms in question can be understood to be in keeping with or break from this theoretical framework, as well as how these platforms are similar to or different from one another in terms of the aforementioned theory. The conclusion will discuss the implications of these outcomes for the development of new methodologies for analyzing and interpreting networked cultures.

Questions relating to speed will be addressed by discussing the diverse ways in which people regard their own tertiary traces of the onflow of life online, through the work that they consciously do in Amazon's Mechanical Turk and through Facebook. These platforms essentially provide a log of online traces to shape and be shaped by a user's technological life. Apart from this, I will discuss the way people understand time when they are engaged or not engaged on these platforms. The speed and differencing of networked communication platforms manifests in the existential experience of its users, often with the effect of blurring the boundaries between the social orders of their lives.

Sensation will be addressed through respondents' descriptions of how spending time online makes them feel physically, along with the ways in which they engage with the two platforms spatially, how they access the sites, what geographical location they access from.

The notion of crisis will be investigated through notions of play and labor as they become intermingled in individual lives to a point where people feel that

they are choosing and are obliged to participate in online activities. The reasons for this pressure to participate will be examined.

Speed

In terms of speed and difference, work on AMT fits with Stiegler's specific definitions of these terms. Aside from the time pressure the respondents reported to feel, there still is the notion that there is less of a delay between the worker and the work, both in terms of time and in the relationship between the worker's consciousness and the tools he or she uses—the computers, the AMT interface, etc. These then relate the worker to people on the other side of these technical apparatuses who are as inscribed in the system as the workers themselves.

This interdependent relationship between the workers and the technological tools they use is a result of their log of how much work they have done over a certain period of time. Very clear metrics are captured. Often turkers quoted how many HITs they had performed throughout their turking career, how much money they had made each month and could remember the number of HITs for specific days along with the amount of money made on those days. This digital work makes it easier to discretize one's working life, in ways that are not so different from those methods used in the physical factory or even in the traditional office job. When asked what was the most amount of money made in a day, one respondent shared,

It would have to have been that day that I made 800 bucks. I think I worked for 16 hours straight or something like that. You know, because the work was available and I was making a huge amount of money. You know, I wasn't about ready to get

up and leave. I think what I did do was I ran to the store real quick and I got myself a—a giant coffee and a—and a six pack of Diet Coke and I just—I just worked on the work until it was gone.

Another respondent shared,

... I have my past three months mTurk income and then I have my collective income for the past few months. In February, I made \$1832.50 on mTurk. And I made a total between everything of \$3412.21 for the month of February for my total income with everything. January was a little bit lower. January I made \$1075.71 on mTurk and I made a collective of \$2681.96 for the entire month of January. So, that's between everything. And then December, for mTurk, I made \$1803.69 and I don't have the total for the whole month because I didn't do it, but [laughter] so...

The affects, though, are less discrete—less solidly spoken about and shared. There were frequent reports of physical afflictions that came along with working long hours in front of a screen. More interesting than that is the way in which respondents often talked about a type of time that they experience at work, referred to as “losing-time flow state” or “time flying,” attached to a particular kind of mindlessness.

One respondent, with regard to time and thinking, said,

I think it encourages me to not [think] actually, because I have to flip from task to task so quick. And there's— I'm one thing to the next. If you get stuck, like oh shoot I was doing it the other way, you're dead in the water. So, you—I'm actually almost learning how to forget things faster to move on to the next task with a clean slate.

One respondent, in answering how time passed said,

To be honest, they're kind of mindless tasks. I mean they don't require a lot of intellect at all. So, they pass the time pretty quickly.

Another claimed,

Turking doesn't actually drag. You know, it's been over a year and a half now that I've been turking full-time. It still amazes me that I sit down at 7:00 or 7:30 in the morning, and the next thing I know it's 2:00 in the afternoon, and I'm, "No. That couldn't have happened." You know, but it does, especially if I spend most of the morning doing surveys for example. That will make the time go by so fast because I'm very engaged in the survey. I get tickled, a lot of them, "Did you take a break during the survey?" "No." "Were you distracted?" "No." And, honestly, I'm amazed at how fast the time goes. You know, how in many jobs, you sit there, and it's, like, "Oh, God, this last hour will never end." And I'm working on MTurk, I almost feel like I don't have enough time to complete everything I wanted to complete in one day. It's that—that is a big difference between a traditional job and then doing this.

The interplay between human consciousness and temporal objects of tertiary memory gives evidence of speed and difference that is faster than can be reflected upon. While much of online life passes at 'light time,' which Stiegler says is characterized by this threat to difference and consciousness, there are areas in Web 2.0 in which this notion of a broken time barrier is contested. In the process of sending messages or emails and chatting in Web 2.0, there still is a self who sends a message, but that self is thought through the collective of common practice on the platform. In this way there is a self and other, and a tool one uses. As in the age of orthographic writing, one has a distance though which one can experience tertiary retentions of others and reflect on them. In this sense, the cultural program that Stiegler argues always involve technics and exteriorized

memory to give context and meaning to the onflow of life, is still intact. This can be understood as exemplary in conversation via chat on Facebook.

One respondent explained,

In terms of when you're are socializing to get to know people when you meet up—when they say, 'hi' and you are talking, time is not what you focus on. You focus on getting to know the person, communicating with the other person. Time is something that can take hours and you don't feel like it's wasted.

I feel like it would be similar in chatting or messaging. But, it might be a whole lot different because we have a span of time to think about what we say before we say it. But when you are live, there is so much more to absorb, you really don't know how to approach what you're saying very well. Being online you have a minute to figure out how you're going to talk.

In this example from the field study, this separation of the technical from the human is real or could be understood to be real. There is a person who uses a piece of equipment to converse with others, but there is the delay that Stiegler talked about with regard to other eras of orthographic writing. In this sense, the above passage from the respondent illustrates that the Internet, while being an audiovisual apparatus, still allows for delay and reflection—a transferring of the onflow of life to secondary consciousness, then a tertiary product. This component of the Internet and what I will call “conscious content generation” holds great opportunity for further developing new methods of critique.

Within the framework established in the previous portion of the thesis, it is important to analyze this activity in terms of affect, or the idea of the precognitive or non-cognitive. To some extent this is impossible to determine because, as discussed previously, the precognitive is already a tool that imputes

difference into the cognitive. One could speak of metrics, as individuals click on things they consciously enjoy. This activity could be categorized as life that is made discrete from the onflow of affect that would have previously been inaccessible. However, it is now the case, at least with social media like Facebook, that capital modulates with conscious affect. As opposed to mTurk, which makes workers' stats available, Facebook doesn't allow users to see statistics, but keeps them nonetheless. Most people interviewed did not know how their traffic was tracked, just that it might be, and only some were aware that it was sold for advertising. Most were unclear or had never thought about how Facebook made money.

This was particularly interesting, because most people claimed to use social media when they were bored, as if it were an afterthought or something to interact with in place of the banality of life as they went about their lives riding trains, walking down the street, waiting for people to meet with them, etc. This points to a notion of an unconscious use of social media platforms, as well as mobile devices that fill in for a sort of delay and difference, in which the precognitive and the cognitive or primary and secondary retention interact with the onflow of online life as if it is happening directly to them.

One Facebook study respondent stated,

[With] Facebook, e-mail, whatever, seeing if anyone texted me in the middle of the night or if I fell asleep and like someone answered, whatever and sometimes like procrastinating my alarm, hitting the snooze button, that type of thing but finally get up, whatever I have to do, I always check it as I'm walking out the door. It's like a weird habit. If I have to sit on a bus or subway, or if I'm sitting in a cab I'm checking it just to waste time, just fiddling with my phone. In school during my

six hour studios, when we have downtime, I am fiddling with my phone out of boredom. And that continues as the day goes on, you know, in between class, whatever, and if I'm out doing something, like I went out shopping, I'm not checking my phone, I'm busy.

In terms of speed, we must draw a distinction between networked platforms for labor and networked platforms for social media, although they may exhibit similar characteristics in some ways. Both offer certain functions that disassemble the continuity of everyday life and allow for reflection. MTurk gives information on individual worker performance to workers so that the workers are aware of their productivity. This might possibly motivate them to perform better, or to do more work in a shorter amount of time. Facebook doesn't offer the metrics of interaction to their users. Instead, Facebook's metrics are available to customers—such as advertisers who want to increase the efficacy their organization by both developing and reaching out to new target markets—and to other agencies, who want this data about the population to create predictive models of behavior. In other words, the information given to users online is just the information capital allows to give to further its interests. Of course activity on these platforms can be reflected upon. One can take a minute, if one chooses, to compose a status update. The work on AMT makes one think, if even shallowly, about the answers or responses you will give. However, these platforms control the way in which time is experienced when people use them. They are owned by two companies that wield a great deal of power over how the internet in general allows users to generate speed or reflect and engage with the idea of delay in order to be useful to those platforms.

Questions relating to speed will be addressed by discussing the diverse

ways in which people regard their own tertiary traces of the onflow of life online, through the work that they consciously do in Amazon's Mechanical Turk and through Facebook. These platforms essentially provide a log of online traces to shape and be shaped by user's technological life. Apart from this, I will discuss the way people understand time when they are engaged or not engaged on these platforms. The speed and differencing of networked communication platforms manifests in the existential experience of the users, often with the effect of blurring the boundaries between social orders.

Sensation

As stated before, the onflow of life as it connects to the precognitive cannot necessarily be tracked, but it can be reflected on. The interviews encouraged users' thoughts on how the media platforms in question draw in users' affects. The users' affects can only be accessed through consciousness, while, within this thesis, that which is embodied and passes ephemerally is of particular interest. The focus of the discussion of sensation as a component of online life, included questions about how it feels to be in a technical assemblage with the hardware and software that makes networked communications possible—not only from a physical perspective, but also from the perspective of how one reports feeling and emotions as a result of this assemblage. This study shows that humans, tools and exteriorized products of memory function in much the same constitutive way that they did in the era of orthographic writing. However, these assemblages of human sensory organs, machinic apparatuses and tertiary retention were experienced on both platforms in a nuanced way that

breaks with those relationships present in writing.

A majority of respondents in both studies reported feeling drained, depressed, tired, or physically ill when using computers and various platforms for long periods of time. Breaking down the reported problems according to platforms seems to show that the people working on AMT reported more pervasive physical problems, while people on Facebook reported more mental or emotional problems.

One Facebook study respondent, on this topic, shared:

Talking about more of like my personal social media like where I keep up with my friends, [...] I'm sure there are times when I see someone like post a picture, and they're out getting drinks together, and I'm like, "Oh, that's weird, why wasn't I invited?" So, I mean, there are times when it can actually like invoke sort of feelings of being upset. But there are other times where it's like, I'll see my cousin post a picture of her new puppy, and it's like, "Oh, that's really sweet," I mean, there's definitely an emotional interaction with it. It just depends on what I'm looking at, of course. But definitely it ranges from everything from anger to happiness.

The same respondent also stated,

There have been times like at home where, if I, sit down on my couch with my iPad and start browsing, my personal social media, like my Facebook News Feed or my Instagram News Feed that it's almost like I'll kind of all of a sudden look up and be like, "Oh, wow, I just spent, 45 minutes going through my News Feed," and I feel almost guilty, like that time could've been better spent, [...] I lose a sense of time. I mean, that has happened, it doesn't always happen. But it certainly, as far as like procrastinating and things like that, I could sit down and be on it, and it feels like ten minutes, but it's really 45.

On a similar note, another respondent from the Facebook study said,

I don't have to type anything in the search bar, like oh, okay, what's on Facebook today, you know, and I click on it. But there was one day that I spent a long time on Facebook and I felt like, not like sick, I was going to be sick or something like that, but like my head hurt and I was like, I can't do this, so now I make sure not to like fall into that trap of like zoning in on, cause as it is, like I'm not the most technological person and so like staring at a, like I always have to print my readings out, you know, that kind of thing, staring at a computer screen is like not good for my mental health. So I just try to remember that, if I am on Facebook like just kind of keep it focused and then get off because I think Facebook is very similar to like, I don't know, like Google in some ways where you just go in the search engine and you can just get lost and keep searching and looking and without really even retaining any information that you're looking at. And the one experience that I had where Facebook did that to me where I was looking through photos of people who I didn't know, and I was like, this is getting really intense, I was just like, I can't do this, so I don't do that anymore. Yeah, so in terms of time usage online, it's not, I like make it a point to not have it take up a lot, it could probably easily take up more time but I make it a point not to cause like I don't want to do that.

We see here that this perception of losing time also occurs while engaging on the Internet in general and in social media in particular. Again, this can serve as evidence that sensation and speed are thoroughly intertwined.

Another respondent in the Facebook study described very well how the body and the way that the body experiences time online can structure one's emotional outlook:

Well both are married, tied into each other definitely. So on that question I think that sitting in front of a computer screen makes me feel, it's hard to put into words, but there's very specific feeling that I feel after using any really kind of technology around like close to it, or something like that. Sending long text messages on my

mom's iPhone for her, I'm like, ugh [makes sound] But yeah, computer screen, I guess it's like my eyes kind of hurt and the screen itself, especially if you have a laptop, I mean draws your focus and where you're probably slouching for the better half that you're on the computer and I know that that translates mentally and emotionally as well, just slouching like that and staying in the same position, you're like crushing your organs for like two hours and then like probably don't realize but you don't know how to breathe properly and one day you're like oh my God, I don't know how to breathe, but anyway, that's a different story. ...it sounds silly, but like walking around or going outside for a minute to like give yourself a break cause, I have to do that, like otherwise I really just get, like I feel depressed, I like, I feel like all, you know, I guess the word would be cranky, like you just want to uh, get out of the chair and yeah, I usually feel depressed, pretty depressed. It makes sense. Zombie-ish.

Finally, the reason people use Facebook is to feel close to people whom they are not able to see or communicate with on a daily basis. Through bridging distance, people consciously feel closer to their friends and family. As one respondent shared,

With some of them it is my primary means, and mostly because I cannot get them to e-mail me or talk on the phone. Or texting is big also, but Facebook has become huge, even for my mother.

I mean she'll call me. But she will be—our conversations usually revolve around Facebook. Like have you seen what's on Facebook? No. I thought I'd call and talk to you.

But Facebook has become a big way to keep in touch.

AMT workers more often reported physical and mental fatigue. These responses seem logical as they are using the platform more seriously. They often set goals

for themselves on the platform and do not stop until they are achieved. A particularly interesting example of the way this work on AMT contrasts with a gaming platform was shared by one respondent:

The worst thing is fatigue, in particular eye fatigue. If I sit there and work all day long and things are really hopping, and going good and I'm actually on until 6 to 7 o'clock, my eyes hurt, my head hurts—and I'm not a person to have headaches. I do not have a history of headaches. But I will get them at the end of the day, at the end of a long session.

Interestingly, I think it's because of the static and repetitive screens. I get up and take a break, play with the dog a bit and come back and log in EverQuest and with that constant motion and changing, it's totally different. Totally different. I think working on MTurk is very much eye strain, mental strain. I do feel drained after a long session. Physically drained to where within an hour you've done 250 of them. Woo! I'm worn out. I have to take a break. I'll even go visit my neighbor.

I feel much more social when I'm playing EverQuest. I get a good sense of satisfaction because, well obviously the length of time I've played it, you know, I know what I'm doing. And I enjoy it. I have a lot of anticipation for EverQuest because they have frequent game updates. They have frequent expansions. I love the discovery. I think that's why I enjoy farming HITs that I farm data, because I enjoy discovery. I enjoy searching—getting deep down in it and finding the answer. EverQuest provides that. It provides both the sense of accomplishment, the sense of discovery and a great deal of a social outlet because I'm playing with real people. I feel more energized. There's no way I can log out of EverQuest and just go to bed. Just can't do it.

That's why once I log out I unwind with the TV. It actually energizes me. It does not wear me down.

Another respondent stated,

Any IT thing that you do, you get mentally fatigued. You can't just stare at the—I've done it. I've done 2,000 READABL HITs in five hours. Well, little more than five hours, just out of determination. And then I feel like I'm a zombie afterwards.

But I said, I might do 100 READABL's and then take five minutes, probably grab a smoke or somethin'. Take five minutes screwin' around, check my email.

This notion of sensation, as it is consciously reflected upon and articulated within the field study, is tied closely with notions of speed and reflection. The online platforms in question structure the way people reflect on things or express themselves and also organize the way in which people interact on the internet. They feel a pressure to keep going because it is either fun, they are bored and must be 'entertained' or they need to spend time maintaining their online appearance, in terms of Facebook. In the case of AMT, the pressure arises because they want or need money.

Crisis

The interrelated notions of crisis and blurring will be explored to determine how individuals' interaction on Facebook and AMT engages ideas of broken borders, eroded categories of life, anxiety and a loss of *savoir vivre*. This section of analysis will explore how people respond to questions of how they regard labor and leisure in their interactions with the platforms. I will also look into responses given to questions about peoples' motivations for doing what they do, how it makes them feel emotionally and what benefit or value they derive from interacting with the platform. A crucial aspect of this study is to understand why people are drawn to AMT and Facebook. The study revealed that the reasons are as varied as the people who engage in them. With AMT, some of the turkers appreciate the geographic freedom they are allowed by the platform, others cite the fact that they can do their work barefoot. Some said they chose to

do it because it was the only thing that made sense for them timewise as they wanted to or needed to make extra money outside of a full time job. Having a family often factored high in the decision if the respondent already had a full time job. Others said they did it because they were drawn to tedious tasks and preferred to keep themselves busy. Overall the draw towards making money was strong. All but two interviewees said this work or this type of work on another platform was an important, if not main source of their income. One respondent claimed,

You are only there because of the economic pressure. So you actually have less freedom because you wouldn't be doing it, if not for your circumstances. So the pressure to either be there all the time doing the work or researching the work is very strong. At least in the factory or the post office, you'd punch in and you'd get your money and you'd go home. The post office would be there tomorrow. You didn't have to worry about it being gone, whereas with mTurk requesters they show up, they put out some work and then they just disappear. So then you just keep checking for them, hoping they'd come back and they never do.

In a nearly opposite declaration by another respondent, characterizing her work on AMT as such:

I'm just sitting there. I might be playing my music. I may have my T.V. on in the background. I live by myself. You know, I do need to generate the income. That's a given. But it's almost a hobby as well. What better could I do? I could just be here staring at the TV or something but I realize now that even if I made a lot of money, unless my time was so consumed that I couldn't get on there, I wonder would I ever stop doing it. Even if I had enough income, I might want a little mad money. It's a possibility.

This quote offers very clear anecdotal support of the idea that the physical

factory floor, the office and the event are disappearing, or reappearing in digital form, as new communication technologies make quick interactions over long distances cheaper and more convenient. It shows how capital is now clearly situated outside the physical realm; however, as the previous discussion of “immaterial labor” indicates, this idea is not particularly new. Instead of these types of work being understood as undermining the physical realm of work and subverting it in a positive way for the workers, this type of online crowdsourcing work exemplifies the severity with which distinctions between work and play have been broken. Instead of trying to fight digitization of labor and related practices, capital has adopted practices that allow it to modulate with changes in networked communication technologies so that it seems natural, even fun to the users or in this case, the workers.

This also demonstrates how people feel about themselves as a result of their work on a platform that allows them to work without stopping, if they so choose. It also allows them to live a life that is structured more on their own terms. Thus in some ways one’s more easily discretized working life becomes his or her “life in general,” simultaneously consumed both with work and time outside of work.

In August of last year I got bored and took a look at AMT and realized that if nothing else it was entertaining and gives a “false sense of accomplishment” or a “synthetic sense of accomplishment.” I’m not very good at doing nothing, as it turns out. At the same time, I have no particular need to go work in an office again. It’s that I don’t particularly want to... and I guess I don’t have to. I’m in the midst of retreading—I’m getting my masters. This lets me feel like I’m accomplishing something with out having to get a real job and wear a suit and tie. The real benefit to my external income coming from Mechanical Turk is that it’s completely geographically decoupled. My classes are online as well. It works better for me.

Crowdsourcing work can be understood as an activity that falls closely in line with the ideas of a previous generation of theorists working with the idea of “digital labor,” the work being done visibly generates money, there is a structure impressed from top down. This nonetheless evinces the mutability capital to reach into the homes of millions of individuals and structure their lives so that they enjoy creating value, if they see it as leisure or that they can conversely easily create much-needed economic value.

Workers on AMT are faced with another interesting blurring of boundaries. Often they work to train machines to do their job.

I'm not sure what I think about it, sometimes I don't know if it's a good thing. It's sort of pulling things apart and... people are doing little micro jobs instead of having a big job and it's so, I don't know, it's just they don't have to hire someone to do something because they can get people to do little parts of it for practically nothing and also sometimes with the language thing I get a little concerned, I'm—well I know some of this is improving translation resources online and down the road, they're not going to need a human anymore cause they're using humans now to perfect things as well.

The Facebook study, shows that flows of life are captured and made into artifacts of tertiary memory through capturing traces of individual lives that people can live and not reflect upon. They see these artifacts of a life—photos, status statements, events—as traces that they never lived, but somehow they retain some experience from these artifacts as if they did. They are encountering traces of themselves they never would have otherwise.

One Facebook study respondent explained,

I mean, if there's pictures or, it's funny because recently, I found— this is unrelated to social media, I guess, but I found an old memory card of mine from a camera. And it had years' worth of like photos from high school, and I got to go through them, it was like very nostalgic feeling, like, and I would say the same for social media, I mean, if I go through albums that I have back from 2006, it's interesting, it's like it brings all these memories kind of in the forefront of, "Oh, this happened back then, and that was fun," or, "Oh, that was a bad time, that was sad." It definitely has an impact, but, I mean, in a way, it jogs my memory certainly, if I can't remember something, and I can go back and reference a picture or a quote or even a wall post from that time, it's like, it sort of can help bring things to the forefront.

However, before entering fully into this discussion, it is necessary to examine reports of why and how people use this platform. Many said that they use it when there is nothing else to do, when they are bored waiting on the bus, when they are trying to fall asleep or between projects for work. Fewer said that while they use this primarily as leisure, they could see it as work, because it is their job to manage social media for work or for school projects.

[I think of it as a] leisure activity, I guess. But I never thought about it as labor. But it can also be—parts of it can feel like labor. Like keeping up an image or controlling what you want other people to see about your online life.

Most individuals interviewed said they used their smartphones to access Facebook. Three admitted to being obsessed with Facebook and looking at it whenever they received an alert on their phones. Most individuals interviewed said that they primarily used it to keep up with distant friends and family members through Facebook and text. Most claimed they used it kill time or to see

“what is going on in the world.”

One person admitted to using the platform to connect with people he wouldn't interact with otherwise.

Facebook is a place I can find out stuff about things that I am not really into. Like I used to be into K-pop. I would be able to communicate with people about that on [Facebook]. Nowadays I really just want to explore the different things. I don't really have that because people that are around aren't really into that, like people were just into K-pop or into dance or school or teams. So to get to know I feel like I like different pages that hosted events in like Brooklyn or something. In senior year of high school I went to events that were really bizarre to me, but still very entertaining to me—a different experience. And that what I was really looking for was a different experience.

This shows evidence of technological objects—computers, the internet and platforms contained in Web 2.0 as constitutive of culture or non-lived tradition which does not belong to the experience of consciousness, but that shows how in digitally networked culture, we are able to interact with, experience in some ways and thus inherit an entire past or cultural tradition that we can easily access through networked communication technologies.

V. CONCLUSION

I have worked through the differences and similarities between societies using Web 2.0 platforms and societies using older modes of communication by applying Stiegler's framework of individuation and retention, which are functions of speed. Speed, in turn, is experienced as sensation and embodiment, which constitute consciousness. Using Stiegler's framework allowed me to give the reasons behind the emergence of the idea that practices blur boundaries

between labor and leisure in the milieu of networked communication technologies. The categories so often prescribed to life—especially the notion that a person is a contained individual who exists in external relation to others and who is at a distance from non-organic technologies—become complicated. The results of this study support the argument that capital seeks to use and design technologies that affect the speed and difference of life to further blur these boundaries and modulate behavior. At the same time capitalist design on technology primes people to rely on networked communication technology through a relationship with it that feels “normal” or “natural.” For example, it is only normal and natural to look at your cell phone while you are bored waiting on the train. The corporation that makes the phone employs tons of research and top designers to market a phone that is pleasant to look at and to touch. The content is designed in a similar way. It is comfortable and rewarding to use the interface. You know how to use it to get what you want, whether it be information about friends and family or answers to everyday questions. Everyone does it.

AMT’s platform of conscious work functions very similarly to Facebook’s platform of unconscious or leisurely work. Both result in distinct components of production that can be sold by those companies owning those platforms. This is obvious. Less obvious are the ways in which these platforms modulate with users consciousness. AMT makes it seem attractive to work from home to earn large portions of one’s total income or, conversely to make extra money in one’s free time. As the barriers to entry are so low, it makes it easier and more attractive to participate on a number of levels. Facebook also has low barriers to entry, it is free and nearly everyone is involved. Facebook makes participation

attractive as it provides access to most of one's life, people, events and memories that can be archived on this site and retrieved at one's leisure.

The ways these two platforms capture data and break apart and to some degree quantify the onflow of life for capital profit are similar, but the way in which they present this data to users differs significantly. Amazon provides the metrics involved with one's productivity to workers and pays them accordingly, so that it motivates them to work harder. Facebook does not offer these metrics to users, only to their customers, so as not to make evident that this is the way they make money. Such disclosures might cause some people, portions of Facebook's data sample, to exit participation.

We can essentially see that the ways these two platforms work to intervene in individuation, speed, sensation and crisis are often very similar. They differ in the way they illustrate Stiegler's notion of crisis, but even in that regard, they differ only slightly, in the respective way capital uses them as two distinct forms of capturing value. These two platforms both capture this surplus value by blurring boundaries between self and other, concepts of internal and external that enable sense-making and presenting an open online world and suggest a similar physical world in which one can "move freely" when in fact, these platforms impose very real restrictions on the user.

Last, the approach of this study as a whole suggests the necessity of a form of critical cultural analysis that can address the precognitive or embodied knowledge, as I have shown in this thesis, capital is interested in modulating with just this component of our subjectivity. But as primary retention is the onflow of life, it is constantly performing and imputing its own difference in these interactions of life with networked communication technologies. Herein

lies the possibility for resistance, though it must be made clear that this has nothing to do with the idea of power being consciously subverted. It instead deals with the subversion of power within the sensory organs themselves. It becomes clear that in the critique of capital's attempt to benefit from the design of networked communication technologies in order to meet primary retention, we cannot demote technologies to the status of mere "things" that we use to facilitate our living.

It is therefore reasonable to suggest that producers of knowledge should also be interested in presenting findings from critical cultural inquiry in a way that can modulate the consciousness of people accessing this knowledge. This thesis has shown that networked communication technology is intertwined with neoliberalism. At the same time, it has shown that this technology engages affect, and exists as a decentralized, communicative space which can be—and is—used to question or disrupt the neoliberal agenda. Following this line of thinking, a critique of capital as it exists on networked communication platforms should exist, not only in written form, but also in a form that engages the aesthetic nature of the technology of interest. The temporal and aesthetic aspects of video, navigation, collectivity, and interactive design could be used, for example, to engage in cultural critique. Such a project could extend beyond written argument and simulate an experience for the reader, encouraging the reader's precognitive to interact with audiovisual flows that emphasize the relationship between networked communication technology, affect and capital. Thus a critique and a desire to be against these practices of capital would be surreptitiously injected in much the same way that the desire to make life a productive activity for capital is currently infused in networked communication technologies.

Bibliography

Adorno, Theodor and Horkheimer, Max. *Dialectic of Enlightenment*. New York: Continuum, 1969.

Agre, Phillip. "Surveillance and Capture," *Information Society*, 10(2) 1994: 101-127.

Althusser, Louis. "Lenin and Philosophy and Other Essays." Trans. Ben Brewster. New York: Monthly Review Press, 1971.

Andrejevic, Mark. "Reality TV and the Work of Being Watched," *Reality TV and the Work of Being Watched*. Lanham, MD: Rowan and Littlefield, 2003.

Baudrillard, Jean. *Simulacra and Simulation*. Trans. Shiela Faria Glasner. Ann Arbor, MI: University of Michigan, 1995.

Beardsworth, Richard. "Thinking Technicity," *Cultural Values*, 2, (1998): 70-86.

Bergson, Henri. *Creative Evolution*. Mineola, NY: Dover Publications, 1998.

Bergson, Henri. *Matter and Memory*. Trans. Nancy Margaret Paul and W. Scott

Palmer. Digireads.com Publishing, 2011.

boyd, danah. "Facebook's Privacy Trainwreck: Exposure, Invasion and Social Convergence," *Convergence: The International Journal of Research into New Media Technologies* (2008): 13-20.

boyd, danah, and Nicole Ellison, "Social network sites: Definition, history, and scholarship," *Journal of Computer-Mediated Communication*, 13(1), (2007).

Clough, Patricia. "The Digital, Labor and Measure Beyond Biopolitics," *Digital Labor: the Internet as Playground and Factory*. New York: Routledge, 2009.

Crogan, Patrick, "Knowledge, Care and Transindividuation: An Interview with Bernard Stiegler," *Cultural Politics*, 6(2) (2010): 157-170.

Dean, Jodi. "Whatever Blogging," in *Digital Labor: The Internet as Playground and Factory*, ed. Trebor Scholz, New York: Routledge, 2013.

Deleuze, Gilles. *Francis Bacon: The Logic of Sensation*. Minneapolis: University of Minnesota Press, 2003.

Deleuze, Gilles. *Cinema I: The Movement Image*. Minneapolis: University of Minnesota Press, 1986.

Deleuze, Gilles. *Difference and Repetition*. New York: Columbia University Press, 1995.

Deleuze, Gilles. "Postscript on Societies of Control," *October*. 59 (1992): 3-7.

Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: University of Minnesota, 1987.

Deleuze, Gilles, and Félix Guattari. *Anti-Oedipus: Capitalism and Schizophrenia*.

Trans. Brian Masumi. Minneapolis: University of Minnesota, 1987.

Dyer-Witherford, Nick and Grieg de Peuter. *The Games of Empire*. Minneapolis: University of Minnesota Press, 2009.

Fort, Karen and Gilles Adda. "Mechanical Turk: Coal Mine or Gold Mine?," *Computational Linguistics*, 37(2) (2011): 413-420.

Foucault, Michel. *Birth of Biopolitics: Lectures at the College de France 1978-79*. New York: Picador, 2008.

Feenberg, Andrew. "Ten Paradoxes of Technology." *Techné* 14(1) (Winter 2010): 3-15.

Fuchs, Christian. "Social Networking Sites and Complex Technology Assessment," *International Journal of E-Politics* 1(3) (2010): 19-38.

Galloway, Alex. *The Interface Effect*. New York: Polity Press, 2012.

Gramsci, Antonio. *Prison Notebooks 1-3*. Translated and edited by Joseph A. Buttigieg. New York: Columbia University Press, 1992.

Grosz, Elizabeth. *Becoming Undone: Darwinian Reflections on Life, Art and Politics*. Durham, NC: Duke University Press, 2008.

Hansen, Mark. *Bodies in Code, Interfaces with Digital Media*. New York: Routledge Press, 2006.

Hansen, Mark. "'Realtime Synthesis' and the Différance of the Body: Technocultural Studies in the Wake of Deconstruction," *Culture Machine*, 6 (2004): accessed Nov. 13, 2012,
<http://www.culturemachine.net/index.php/cm/article/viewArticle/9/8>.

Hardt, Michael and Antonio Negri. *Empire*. Cambridge, MA: Harvard University

Press, 2000.

Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. Chicago: University of Chicago Press, 2011.

Heidegger, Martin. *Lecture on the Question Concerning Technology*. New York: Harper and Row, 1977.

Heidegger, Martin. *Being and Time*. Albany, NY: SUNY Press, 2010.

Innis, Harold. *Empire and Communications*. Toronto, Ontario: Dundurn Press, 2007.

Jameson, Frederick. "Cognitive Mapping," *Marxism and the Interpretation of Culture*. Edited by Nelson, C./Grossberg, L. 347-60. Champaign, IL: University of Illinois Press, 1990.

Jung, Carl Gustav, "Psychological Types," in *The Collected Works of C.G. Jung*, trans. and ed. Gerhard Adler and R.F.C. Hull (Princeton: Princeton University Press, 1971), *Volume Six: Psychological Types*, trans. and ed. Gerhard Adler and R.F.C. Hull.

Kwinter, Sanford. *Architectures in Time: Toward a Theory of Event in Modernist Culture*. Cambridge, MA: MIT Press, 2001.

Latour, Bruno, *Reassembling the Social*. New York: Oxford University Press, 2007.

Lazzarato, Maurizio. "Immaterial Labor," *Radical Thought in Italy: A Potential Politics*, Edited by Paolo Virno and Michael Hardt. Minneapolis: University of Minnesota Press, 1996.

Massumi, Brian. *Parables for the Virtual*. Durham, NC: Duke University Press,

2000.

Marx, Karl. *The Grundrisse*. Translated by David McLellan. London: Harper & Row, 1971.

Marx, Karl. *Capital*: Vol. 1-3. Translated by Ben Fowkes. London: Penguin, 1992.

Marx, Karl. "A Workers Inquiry," *La Revue socialiste*, (April 20, 1880)
Translated by Curtis Price (1997): accessed September 20, 2012,
<http://www.marxists.org/archive/marx/works/1880/04/20.htm>.

Mieszkowski, Katharine, "I Make \$1.45 a Week and I Love It," *Salon*. (June 24, 2006): accessed October 13, 2012, http://www.salon.com/2006/07/24/turks_3/

Mosco, Vincent. "Current Trends in the Political Economy of Communication," *Global Media Journal – Canadian Edition* 1 (1) (2008): 45-63.

Mosco, Vincent and Catherine McKercher. *Knowledge Workers in the Information Society*. Lanham, MD: Lexington, 2007.

Pariser, Eli. *The Filter Bubble: What the Internet Is Hiding From You*. New York: Penguin Press, 2011.

Plato. *Complete Works*. Edited by John M. Cooper. Hackett Publishing Company, 1997.

Regis, Edward. "Aristotle's Principle of Individuation," *Phronesis* 21(2) (1976):157-166.

Sennett, Richard. *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*. New York: Norton, 2000.

Shirky, Clay. *Cognitive Surplus*. New York: Harper and Row, 2010.

Simondon, Gilbert. "The Genesis of the Individual," *Incorporations*, edited by Jonathan Crary and Sanford Kwinter. New York Zone Books, 1992.

Simonite, Tom. "What Facebook Knows," *MIT Technology Review*. July / August 2012.

Stiegler, Bernard. "Anamnesis and Hypomnesis," *Ars Industrialis*. (2010): accessed September 20, 2011, <http://www.arsindustrialis.org/anamnesis-and-hypomnesis>.

Stiegler, Bernard. *Technics and Time I: The Fault of Epimethius*. Stanford, CA: Stanford University Press, 1998.

Stiegler, Bernard. *Technics and Time II: Disorientation*. Stanford, CA: Stanford University Press, 2008.

Steier, Bernard. *A New Critique for a New Political Economy*. Translated by Daniel Ross. Malvern, MA: Polity Press, 2010.

Stiegler, Bernard and Irit Rogoff. "Transindividuation," *E-Flux Journal* No. 14 (2010). Accessed March 10, 2012, <http://www.e-flux.com/journal/transindividuation/>.

Stiegler, Bernard. "Desire and Knowledge: The Dead Seize Living," *Ars Industrialis* (2010): accessed Oct, 2012, <http://www.arsindustrialis.org/desire-and-knowledge-dead-seize-living>.

Terranova, Tiziana. *Network Culture: Politics for the Information Age*. London: Pluto Press, 2004.

Terranova, Tiziana. "Of Sense and Sensability: Immaterial Labor in Open Systems," *Creating Immateriality Systems: On Curating Digital Media*. Edited by G.

Cox, J. Kyrza and A. Lewin. *Data Browser Series: Autonomedia*, 2006.

Thrift, Nigel. *Nonrepresentational Theories: Space, Politics, Affect*. London: Routledge Publications, 2007

Virno, Paolo. *Grammar of the Multitude*. Los Angeles: Semiotext(e), 2004.

Umpleby, Stuart. "History of the Cybernetics Movement in the United States," *Journal of the Washington Academy of Sciences*, 91(2) (Summer 2005): 54-66.

Weiner, Norbert. *Cybernetics or Control Communication in the Animal and the Machine*. Kesslinger Publishing, LLC., 2007.

Zizek, Slavoj. *Violence*. New York: Picador, 2008.