

DISTRIBUTING PRODUCTIVE PLAY:
A MATERIALIST ANALYSIS OF STEAM

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Abstract

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Valve Corporation's digital game distribution platform, Steam, is the largest distributor of games on personal computers, analyzed here as a site where control over the production, design and use of digital games is established. Steam creates and exercises processes and techniques such as monopolization and enclosure over creative products, online labour, and exchange among game designers. Stuart Hall's encoding/decoding framework places communication at the centre of the political economy, here of digital commodities distributed and produced by online platforms like Steam. James Gibson's affordance theory allows the market Steam's owners create for its users to be cast in terms of visibility and interaction design. These theories are largely neglected in the existing literature in game studies, platform studies, and political economy, but they allow intervention in an ongoing debate concerning the ontological status of work and play as distinct, separate human activities by offering a specific focus on the political economy of visual or algorithmic communication. Three case studies then analyze Steam as a site where the slippage between game-play and work is constant and deepening. The first isolates three sales promotions on Steam as forms of work disguised as online shopping. The second is a discourse analysis of a crisis within the community of mod creators for the game *Skyrim*, triggered by changes implemented on Steam. The third case study critiques Valve Corporation's positioning of Steam as a new space to extract value from play by demonstrating historical continuity with consumer monopolies. A concluding discussion argues Steam is a platform that evolves to meet distinct crises and problems in the production and circulation of its digital commodities as contradictions

arise. Ultimately, Steam shows how the cycle of capital accumulation encourages monopolization and centralization.

Keywords: political economy, digital labour, Steam, platforms, play, distribution, games

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Dedication

For my parents,

Margaret Joseph and Donald Joseph

Table of Contents

Abstract	iii
Acknowledgements	v
Dedication	vi
List of Figures	ix
Chapter 1: Introduction	1
Steam's Basic Features: A Short Primer	19
Store	19
Library	21
Community	22
User Profile	24
Methodology	25
Case Studies	25
Critical Discourse Analysis	26
Description	29
Chapter Outlines	30
Chapter 2: Play, Work, and the Political Economy of Games	34
Huizinga's Conception of Play	35
Towards a Taxonomy of Games: Roger Caillois	39
The Political Economy of Games	54
Modding and Digital Labour	57
Affordances and Media: Two Interventions	61
Encoding/decoding and Affordance Theory	63
Affordance Theory and the Work Task	68
Conclusion	73
Chapter 3: The Steam Sale	75
Trading Cards and the Discovery Queue	81
The Lunar New Year Sale	86
Steam Summer Picnic Sale	88
Three Productive Sales Promotions	88
Chapter 4: The Discourse of Digital Dispossession	93
The Commodity Fetish	97

Enclosure, Primitive Accumulation & Accumulation by Dispossession	99
The Major Themes	110
Commodification	110
Community	112
Intellectual Property	114
Greed	115
Market Failure	116
Conclusion	117
Chapter 5: Space, Shopping, and Steam	121
Digital Platforms and Distribution	127
The Discoverability Problem	133
The Discursive Construction of Steam as Digital Marketplace	136
Distribution as Commodity	138
Value	141
Productivity	148
Distributing Productive Play: A Discourse	150
Conclusion	151
Chapter 6: Conclusion	153
Assemblages and Platform Studies	156
Ontology of Work and Play	158
Digital Labour & Platform Capitalism	159
Opportunities for Future Research	162
The Steam Community Marketplace	163
Steam Greenlight	164
The Steam Web API: The Bizarre Case of Gambling Rings and Scams	165
Study Platforms Now	167
References	168

List of Figures

Figure 1. <i>The front page of the Steam store.</i>	20
Figure 2. <i>Customer reviews.</i>	21
Figure 3. <i>The library tab.</i>	22
Figure 4. <i>The multifaceted “right click” menu associated with every game in the Library</i>	22
Figure 5. <i>The community tab.</i>	23
Figure 6. <i>The community marketplace.</i>	24
Figure 7. <i>The profile tab.</i>	25

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Chapter 1: Introduction

In 2013, Gabe Newell, the CEO of Valve, described his vision for the future of capitalism (Newell, 2015). He described lessons he'd learned in the mid 1990s before he founded Valve, while he was an employee at Microsoft to develop their flagship operating system, Windows. Newell's experience at Microsoft meant he had a front row seat to its growth as the monopoly in operating systems. When Microsoft quickly gained market dominance, Newell noticed the company struggled to lucratively manage the distribution of Windows. At the time, Windows came preloaded on nearly every computer sold in the 1990s, yet Microsoft had no record of how many copies of Windows remained installed on those computers after they left the store. The company also lacked information about how their products were used—information that would let them build both better products, while further cementing their competitive edge in the marketplace.

Newell saw an opening, and Microsoft finally took it. The company opted to conduct a survey of users to find how and for what purpose they used their computers. Newell said the results surprised Microsoft, because at the top were two categories their business model had left out entirely: porn and games. Microsoft ignored the porn, but was intrigued by the importance of gaming for its users. Similarly impressed by the popularity and potential of games, Newell later left Microsoft and co-founded Valve, where his focus became manufacturing a high-quality product in a marketplace that the world's largest computer monopoly had ignored. Many years and games later, Valve is known for its success as a game development studio; yet it is increasingly known for another of its products: Steam, a digital distribution platform for digital games on the PC.

Some would argue that Valve's business is in fact less and less about making games, and increasingly about Steam. At the gaming enthusiast website Waypoint, Patrick Klepek (2017) explained that while many recognize Valve for its successful games like *Portal* or *Half-Life*, "Valve has publicly shifted into a different company, which is an argument that people should rethink how they look at Valve. It's better known for Steam, an online marketplace." In this dissertation, I argue that Valve's shift toward running an online marketplace was a move to find value in previously untapped places. Valve had originally started making games because it was a massive untapped market. Likewise, Steam, and the digital marketplaces inside of it, was another large, untapped market.

This dissertation investigates the contradictions at the heart of Steam, a technology that emerged, I argue, as a way of *distributing productive play*. For decades, Steam and other distribution platforms have managed to avoid much scholarly scrutiny, while other pieces of hardware—mainly video game consoles—have become the subject of book series titled "Platform Studies" (Apperly and Parikka, 2015; Montfort and Bogost, 2009). This dissertation focuses on a variety of aspects and contradictions taking place on and adjacent to Steam, and is thus an intervention into the field of game studies on several fronts. The first is an extension of the methods and theoretical toolkits of communication and cultural studies into the field of game studies. This is inspired by the work of Dyer-Witheford and de Peuter's (2009) *Games of Empire*, which was written, as Bart Simon noted in his review (2011), "with scant attention to game studies as a field and with even less concern for a direct engagement with game studies scholars". Despite this, Simon noted that those in game studies had "no excuse" to avoid reading it. He went on to say that "game studies would find its most formidable opposition not in the entrenched media effects paradigms of positivist psychology and communications research but

rather from a more thorough and careful trajectory of thought in critical media studies and critical theory.” In this vein, my research on Steam directly engages with the field of game studies, while being itself firmly planted within the literature and methodologies of communication and cultural studies.

Beyond *Games of Empire* (2009), the Platform Studies book series has addressed some of the subject area of this dissertation. However, this dissertation does not operate within the same methodological paradigm as Platform Studies. In particular, the series editors Nick Montfort and Ian Bogost (2009) outlined the broad elements that a platform study should attend to:

A focus on a single platform or a closely related family of platforms.

Technical rigor and in-depth investigation of how computing technologies work.

An awareness of and discussion of how computing platforms exist in a context of culture and society. (p. vii-viii)

While I certainly attend to the first and third elements, a technical investigation of how computing technologies work was not within the scope of my research or methods.

Thus, rather than emulating the tradition of platform studies research as it has existed in the field of game studies, I have focused my methodology on previous studies of platforms performed in communication and cultural studies. Ganaele Langlois & Greg Elmer (2013) break these down into three major approaches. The first comes from critical political economy, which dealt heavily with concepts like “immaterial labour” (Hardt & Negri, 2001), “semiotic capitalism” (Berardi, 2009), “digital labour” (Terranova, 2003), and “cognitive capitalism” (Moulier-Boutang, 2012). The second tradition emerged from critical empirical engagement with platforms in software studies, using methods that practitioners considered to be “native” to the technology (Gillespie, 2012). Finally, Langlois and Elmer (2013) argue that the last tradition

came out of media activism and software design, which focused on theorizing and finding concrete solutions for problems raised by critical political economy or software studies (Lovink, 2012). Langlois and Elmer (2013) saw that all of these traditions could be productively unified by stressing that each approach focused on different moments in the production of communication and culture, and that each offered specific attention to the *articulations* that mutually reinforced each other moment.

Langlois and Elmer (2013) argued that to move forward, critical social media research must contextualize the extent to which platforms are enmeshed with a ruthless capitalism. This sets distinct limits on what researchers can hope to understand and know about the platforms they study. They noted, “Corporate social media platforms obfuscate: their logic goes against critical approaches at many levels (p. 8)”. Similarly, the data these platforms produce is far from “objective”, which means that researchers using this data must constantly situate and contextualize it. As such, the researcher of a social media platform must ask the question: “how can we unpack the different articulations of corporate and participatory logics by examining what is available to the researcher with limited access to corporate social media data and to the social media algorithms that organize life online?” (p. 14). In other words, researchers must consider the limits of what they can know about these platforms so that the questions they ask can actually be answered.

In this dissertation, I reveal how Steam has become a distributor of *productive play*. I began my study with the question: “How does Steam materially and discursively shape and reshape work and play?” In the process of answering this question, other questions arose. For one, how did it become a monopoly for the sale of games on computers? How did hobbyist modders who use it respond to changes in the platform? How does the platform capture value

and how does it direct labour to where it *can* be captured? At a higher level, what are the ontological and epistemological relationships between work and play?

To help me frame and answer these questions I came to use two distinct theoretical systems. The first is James Gibson's (2015) affordance theory, which allows the market Steam's owners create for its users to be cast in terms of visuality and interactive design¹. These theories are largely neglected in the existing literature of game studies, platform studies, and political economy, but they allow participation in an ongoing debate concerning the ontological status of work and play as distinct, separate human activities by offering a specific focus on the political economy of platforms that rely on visual or algorithmic communication. In the same vein, Stuart Hall's (1980) encoding/decoding framework, which places communication at the centre of political economy, is influential here. Hall's "moments" in the process of communication are surrounded and contextualized by the discourses that inform their production, and the "relations of production" in the wider economy that frame a now ascendant form of "platform capitalism", where monopolistic platforms mediate a critical mass of commerce and communication (Srnicek, 2016).

When Newell founded Valve in 1996, he paid attention to how many companies were either trying to commodify distribution and to those that ignored it entirely. After making a few hit games, the first of which was *Half Life* in 1998, Valve developed Steam in 2003 as a means to distribute updates for one of its most popular multiplayer games, *CounterStrike*². The aim was to streamline the game's playability, ensuring that everybody would have the same version at the same time. It didn't remain merely a software-update portal for long, however. Starting with the

¹ The three sales I specifically look at are informed by techniques like "gamification" or "gameful design".

² This will be discussed in depth later, but it's important to note here that *CounterStrike* is particularly important to the history of Valve. It was one of the first examples of how Valve has explicitly co-opted and incorporated the work of digital game modding communities into their business.

highly anticipated *Half Life 2* in 2004, Steam became a retail platform selling direct downloads online. In 2005, Valve opened Steam's store to third-party publishers and developers, leading to what is now a flood of games available on the platform (Stanton, 2012). Different estimates have suggested that Steam controls anywhere from 50 to 75 percent of all digital game sales on PCs (Chiang, 2011; Screen Digest, 2013).

Steam then expanded even more. It created an internal marketplace in 2012, community forums, a user-review system in 2013, and a database of user-created game modifications in 2008 (Know Your Meme, 2015; Makuch, 2012; Steam, 2008). Valve had found a way to value and commodify distribution by creating a platform when digital distribution of digital goods was just coming into being as a viable sales' method. It simultaneously found ways to commodify and capture the value of fragmented forms of digital labour taking place. The more users who posted reviews and mods, for example, the more the value of Steam's service increased.

Steam is so many things at once, each facet a different part of the internet's appeal as a platform for communication and commerce. I began my inquiry with the goal of understanding Steam as a product of its historical context, and as such, a product of both capitalism and leisure, of work and play. I wanted to find out how Steam mediates the play at the core of digital games, and about the labour that creates and supports them. I also wanted to identify Steam's position within the context of gaming history. This dissertation is the result of that questioning impulse. I conducted three case studies, researched and contextualized the economic environment in which Steam was created, and situate the struggles that happen on and through Steam within the history of digital labour and play.

Steam provided me with a *space* to analyze the assumed dialectic between work and play, and how this dynamic plays out on digital platforms, where the distinctions between play and

work are routinely conflated. In this introduction, I briefly discuss the background of Valve, the rise of hardware consoles for digital games, and the growth of platform capitalism, where labour and commodity production are funneled through a series of value-extracting choke points: platforms (“Platform Capitalism,” 2017; Srnicek, 2016). I then show how Steam fits into this dynamic, which still conforms to Marx’s general theories of commodity fetish and alienated labour as material conditions at the core of capitalism, specifically the dialectic of overaccumulation and crisis (Harvey, 2004). This discussion will set a foundation for the following chapters comprised of the literature, theoretical framework, original historical analysis, and case studies under analysis.

Until now, very little has been said about Steam in critical communication studies, and even within the field of game studies. So far, cursory studies have been conducted about communities that use Steam’s forums or networking tools, or about games developed by Valve that rely heavily on the Steam’s interface. Blackburn et al. (2014), for example, address the importance of Steam as a mediator between cheaters and the games in which they cheat. Kang, Yong, & Hwang (2017) use data collected from Steam’s user review system to conduct sentiment analysis to see if reviews are “useful” to platform users. Moore (2011) analyzed Steam’s popular competitive first-person shooter, *Team Fortress 2*, to study the intersection of commerce and affect. Namousi & Kohl (2016) analyze Steam as a “crowdsourcing platform” to discuss how crowdsourcing takes place on the internet and how large groups of people come together to create and consume culture.

Much of the scholarly research relevant to my study of Steam has focused on theorizing digital labour, playbour, and the political economy of mod making. For example, Kücklich’s (2005) work developed the still relevant (and still debated) concept of “playbour”, and how mod

developers produced value for the corporations whose games they modded. Postigo's (2016) research on YouTube, streaming, and "let's play" culture inherently addressed the importance of digital distribution platforms as the shaping element in the form of labour that these activities become. Nieborg's (2008, 2015) research has developed an analysis of the specific forms of labour in and around the modding communities, as well as the new industrial makeup of the digital games industry due to the boom in mobile gaming on smartphones. Still, these previous works have not dealt with a platform with the scope and depth of Steam, which has so many features that it was very difficult to know where to begin my study.

It's also important to situate my research specifically within the field of game studies and the political economy of communication. In game studies, my research is a call to look deeper into the political economy of the digital games industry, and the specific conditions that shape the technologies and messages they create. In the political economy of communication, my work is part of an ongoing call to researchers to explore an industry which is understudied and undertheorized. While telecommunications, film, and book publishing have all been subject to substantial quantities of research, the digital games industry has attracted significantly less, partially because of the relative youth of the industry, but also because game studies is less well established in communication studies than other subfields. Instead of looking at a more general history of media and distribution platforms, this study is a highly focused analysis of the politics of platform capitalism in a specific context (the digital games industry), contained within the field of game, media, and communication studies.

Hardware platforms have been around for a while in the digital games industry, in the form of consoles. Consoles traditionally were pieces of hardware manufactured by one company, that would play first-party games (games produced by the console manufacturer) or third-party

games (produced by independent game developers). The Atari VCS was one of the first to have wide market success, following their previous success with *Pong*'s home console. Yet Atari was also at the centre of the crash of 1983. One explanation of this crash came in the form of *too many* games, or a crisis of overproduction. One explanation was that the VCS lacked the ability to control third-party development for their console, leading to a flood of games from a variety of manufacturers, some more reputable than others (Chiang, 2011; Montfort and Bogost, 2009). Yet an oversupply of poor quality games only explains one aspect of the crash of 1983. It was a broad process, and likely had as much to do with overinvestment and inflated expectations from capital markets as it had to do with product quality. After all, Warner Communications had bought Atari only four years after it had produced its hit *Pong*, and proceeded to inject 300 million in cash into the business to start development of the VCS. Atari sub buried a bunch of *ET: The Extra Terrestrial* cartridges in the desert, and the video game fad was presumed over (Geuss, 2014).³

Learning from this crash, the Japanese toy manufacturer, Nintendo, launched the Famicom (later renamed Nintendo Entertainment System or NES) in 1983 (1986 in North America and Europe) with much stricter regulations on content than Atari. Its console would not play games that were not approved by Nintendo's internal vetting system, which was set up to control quantity and quality (Altice, 2015). For example, Nintendo made sure that third-party

³ This particularly story is one of the founding myths (that turned out to be true) of the second era of digital games consoles. When the market started to turn sour in 1982, Warner declared a loss of \$300 million with another \$10 million of unsaleable Atari merchandise sitting in a warehouse. Atari ended up shuttering its manufacturing plant in El Paso and then dumped a reported 14 truckloads of stock in a landfill in Alamogordo, New Mexico. It became a legend that millions of *ET: The Extra Terrestrial* cartridges were dumped there. In 2014 enthusiasts interested in the legend dug in the landfill and discovered an assortment of Atari merchandise, proving the myth true. This is certainly one of the most bizarre and yet characteristic stories of how capitalism functions during a crisis: by destroying excess stock and capital (Geuss, 2014).

games developed on the platform would have to conform to strict content guidelines. There would be no ultra-violence or sex on the NES. More importantly, Nintendo would make sure there would be no oversupply of games. This was managed by being the only manufacturer of cartridges while also limiting the quantity of cartridges to which each publisher would have access. If any bootleg cartridges were manufactured elsewhere, they would still have to have access to the digital key that the NES required for a cartridge to be played. At the same time, Nintendo demanded strict adherence to its business guidelines from distributors of Nintendo's games, which the United States government considered to be anticompetitive, and in the process was investigated by the Federal Trade Commission for antitrust activity in 1992 (*Atari Games Corp. v. Nintendo of America Inc.*, 1992). This approach laid the essential groundwork for platforms today: control through contracts, code and distribution. With this form of control, Nintendo turned video games from a fad into an industry again.

Consoles provide a window to the rise of digital platforms generally. Digital platforms take advantage of the lessons learned from control through hardware, but are even more abstracted. By functioning on top of already existing hardware platforms, they can appear as less strictly regulated and controlled spaces. Because they are often software platforms or work inside web browsers (and as such, are free) they appear as less draconian and more open to consumers. Because of the economies of scale, they also allow more people and businesses to sell commodities through them, generating an air of democracy. But appearance is misleading. They are, in reality, highly regulated spaces. They operate under strict controls to which the people who use them to connect with each other, for commerce or communication, must adhere. And perhaps most importantly, they are spaces that permit and encourage the production of value while capturing that value. Digital platforms can extend capital into new spaces, going where it

was previously impossible to imagine. For example, in his talk at the University of Texas, Newell described Steam as a portal not just for consumption but what he saw as a kind of productive labour: “to maximize productivity of users in creating digital goods and services”(Newell, 2013). My argument is that Valve isn’t interested in making games anymore, but instead in *distributing productive play*.

What Newell is talking about is Steam as a social space, a platform on which users create value — a sort of factory. But unlike traditional factories, the workers are tasked with self-management in an entrepreneurial meta-competition, seeking new ways to craft or sell virtual items for profit. For example, in *CounterStrike: Global Offensive*, players unlock or purchase crates and weapon “skins” with real money.⁴ These items can be sold or bartered on an open marketplace, and just like actual commodities and stock markets, opportunities based on arbitrage, supply and demand, and other considerations present themselves. Users compete with each other to come out ahead in this game beyond the actual gameplay of the game. The proceeds of these transactions then remain on Steam, which continues to take a percentage of *every* future transaction made with this money. This is an elaboration of the platform logic of the NES, extending it greatly not only into control of how content is distributed and what is available, but also into the capture of users’ labour in new ways. This puts it into the league of other digital distribution platforms like YouTube, which distributes a billion hours of video

⁴ *CounterStrike: Global Offensive* is the most recent version of Steam’s long running competitive first person shooter franchise. In it players compete in rounds against each other on opposing teams, trying to complete objectives and eliminate other players from the game using an assortment of weapons. The weapon skins described here are different paint and colour schemes for the guns and knives that players use while playing the game. Decorating weapons like this is now a common feature in lots of competitive online shooters.

inventory a day, much of it contributed and organized through the unpaid labour of consumers (Goodrow, 2017).

In Dyer-Witheford and de Peuter's (2009) *Games of Empire*, the case is made that digital games are a distinct commodity of our era. Among their reasons were these: video games are made with highly-skilled forms of mental labour, reflecting the economic trend towards a structural emphasis on science, technology, engineering and mathematics (STEM) fields; video games conform to the worldwide division of labour where workers in the global north provide the high-skilled labour to develop the code while the material parts of computers are manufactured (and later dismantled) in the global south; and their digital qualities makes them subject to different and increasingly pervasive forms of control. Video games open ideological space in which freedom and choice can be reconfigured. In their production process and in how they are consumed, video games exemplify the material conditions of neoliberalism: they idealize and structure experiences of individual freedom and self-empowerment (through code or play), while themselves being the product of the exploitation of labour made possible through deliberately uneven global development.

Games of Empire (2009), is heavily influenced by the writings of Michael Hardt & Antonio Negri (2000, 2005), who were themselves heavily influenced by the Italian operaismo (workerism) and Autonomia movements which grew in size and influence in the 1970s. Both were heterodox (for the time) interpretations of Marx's work, which gained a widespread popularity in activist and theoretical circles in the 1990s and 2000s. Dyer-Witheford's *Cyber-Marx* (1999) introduced these theories to communication studies and political economy, creating a powerful critical lens for those of us who research these topics. I have some serious reservations about this particular strain of Marxist political economy, especially concerning the

class consciousness and political efficacy of the universal subject (“the multitude”) that was proposed and other categories, like “immaterial labour”. I and my co-author, Daniel Greene, argue that:

Our analysis of new digital spatial fixes, especially the “primitive accumulation of time” that develops from earlier, similar strategies, demonstrates that the struggle to capture, measure, and valorize surplus labour time is still at the core of the contemporary labour-capital relation. This analysis proceeds under the assumption that “immaterial labour” is anything but (Caffentzis 2007). Work that produces affects is always deeply embodied, as in the centuries of “women’s work” required to reproduce capitalism. The informationalization of production is always reliant on “dirty” labour-intensive industries elsewhere on the supply chain. And service or cultural work always relies on fixed capital projects and always produces commodities that, though they may not be physically tangible, are certainly material in their production and consumption (e.g. the millions of working hours going into a big-budget video game). (Greene & Joseph, 2015, p. 226)

From this viewpoint, we sided explicitly with political economic approaches influenced by Dallas Smythe (1979), like Christian Fuchs (2008, 2012a, 2012b), who makes a robust case for analyzing and making sense of the un-coerced, unpaid labour that takes place through broadcasting technologies, and the internet.

Media conglomerates and other industries have long sought monopolies on production or distribution by owning things like rail yards, movie theatres, and the land on which stores, distribution centres, warehouses and factories are built. This infrastructure provides these organizations with the means to *produce* and *distribute* the commodities they sell. It also reduces

marginal costs (i.e. the cost of producing each individual commodity is reduced the bigger in size an organization becomes), and allows organizations to build better, more effective monopolies. What digital platforms are best at is replacing a lot of this infrastructure for certain kinds of commodity production. Warehouses become servers. Shipping becomes bandwidth. Movie theatres become apps on smart television. Most importantly, however, is how certain platforms increasingly afford users the ability to create their own content, some of which are turned into saleable commodities alongside the well-established capture of users as audiences, which are then sold to advertisers (Jenkins, 2008; Smythe, 1977; Fuchs, 2012a).

Nick Srnicek, in his book *Platform Capitalism* (2016) argued that the defining feature of platforms is that they are “digital infrastructures that enable two or more groups to interact” (p. 43). Platforms work as intermediaries: tools that bring together consumers and producers, advertisers and audiences. For example:

Microsoft’s Windows operating system enables software developers to create applications for it and sell them to consumers; Apple’s App Store and its associated ecosystem (XCode and the iOS SDK) enable developers to build and sell new apps to users; Google’s search engine provides a platform for advertisers and content providers to target people searching for information; and Uber’s taxi app enables drivers and passengers to exchange rides for cash. Rather than have to build a marketplace from the ground up, a platform provides the basic infrastructure to mediate between different groups. (p. 43-44)

This means platforms are technologies that *produce* centralization spatially and economically⁵. Platforms increase in value because their network effects increase in power as their size grows.

⁵ Marx discusses this process extensively in chapter 25 of *Capital vol. 1* (1990). As smaller “capitals” are bought out by bigger capital “Capital grows in one place to a huge mass in a single hand, because it has in another place been lost by many” (ibid, p. XXX).

This means other platforms and services either are bankrupted or are integrated into growing platforms and the conglomerates that own them.⁶

These network effects also produce and encourage centralization, which means that the question of space has to be addressed carefully. Platforms create a space in which specific forms of exchange can occur, and set the terms for those exchanges, all while extracting rents in the form of transaction fees. This is true not only in the virtual realms of massively multiplayer online role-playing games (MMORPGs) like *EVE Online* (where new territory and new forms of goods are created that exist only within the game) but also of digital labour platforms like Uber or Lyft.

Space has been a serious consideration in political economy, and an area of serious theoretical development since *Capital* (1990) was published. Rosa Luxemburg (2003) argued that colonialism was primarily about expanding markets and labour forces. Lenin (1970) argued in 1915 that capitalist economies generate an excess of capital relative to internal investment opportunities so capitalists need to create new markets and integrate new labourers into the workforce to exploit them both. Daniel Greene and I have made the case that this process persists not only in geographic space but also in the “spaces” of the internet in our article “The Digital Spatial Fix” (Greene & Joseph, 2015). The goal is to find pieces of life that aren’t already commodified and bring them into the orbit of capital, taking things that were once free and selling them to us by constructing infrastructure around them. Marx (1867) called this process

⁶ The glut of capital in Silicon Valley is evidence of this trend. Out of Google a new holding company, Alphabet Inc. was created to manage the vast assortment of companies and technologies that have been bought by Google since its founding (Alphabet, 2017). Other major platform owners like Amazon likewise have continued to buy up services and companies, growing ever larger as their capital valuation grows (Muoio, 2016). It’s unclear if most of these technologies will ever be profitable, but what is certain is that an assortment of monopolies in this business sector now control the vast majority of services on the internet (Bratton, 2015).

either “expropriation” or “dispossession”, whereby socially useful objects and practices that once existed outside of capitalist value accumulation are now being sold to us. The same process of dispossession and enclosure that has characterized the expansion of capitalism happens online. Internet users are being dispossessed of their time and attention, which are being enclosed through surveillance and platforms, and then quantified and monetized.

Things never work entirely smoothly during dispossession. There are innumerable instances of people voicing their anger (and revolting) when what they think is theirs is taken from them. For example, two of the earliest struggles around dispossession in the early-modern era were those of peasants burning down “satanic mills”, and the Luddites breaking the machines that were deskilling them (Marx, 1990; Polanyi, 2001). The micro-computer hobbyist community knew it too. In 1975, one of the first microcomputers, the MITS Altair 8800 signed a license with Bill Gates’ ‘Micro-soft’, agreeing to license his Altair BASIC operating system. The computers would be sold for \$500, and Altair BASIC, which the computer would not work without, would also be sold for \$500. Most of those who paid for the computer considered it obvious that Micro-soft had already been paid to make the software. In addition to this, they found it hypocritical for Gates to complain, as he had used a publicly owned computer (a PDP-10 owned by the Department of Defense at Harvard) to develop the software. The Homebrew Computer Club copied the software and distributed it for free, so they could get on with developing programs for it. Bill Gates (1976) then wrote his infamous “Open Letter to Hobbyists,” asking them to stop stealing the software, but to them it was their right as creators and hobbyists to use their hardware in any way they wanted (Felsenstein, 2008). The content of both the letter and the community aren’t explicitly political, but they do represent the implicit

conflict around intellectual property and the relations between the owners and users of that property.

With platforms the same conflict occurs, but the owners don't have to write bitter letters, or file lawsuits, or otherwise try to forcibly assert control over the marketplaces they perceive to be their property. They can instigate unilateral updates to the platforms themselves by changing the code, thereby changing both the policies and the affordances of platforms. More often than not, the community has little to no input, and so these unilateral changes can throw the community of users into disarray.

Here's one example I will be exploring more in depth later on, but something that I think is particularly relevant here: several years ago Valve decided to fundamentally alter a small, moderately well-known kind of hobby called modding. Mods are user-created add-ons or alterations to video games, often made with the consent of the game developer. Historically the bargain was this: mod makers (or "modders") could tinker with proprietary game engines to build expansions, add new content, and create new games, but they would not be allowed to sell them (Kücklich, 2005; Nieborg & van der Graaf, 2008; Postigo, 2003, 2007). But in April 2015, Valve and Bethesda (the developer of the first-person fantasy role playing game *The Elder Scrolls: Skyrim*, which is particularly popular with modders) decided to roll out a new feature that would enable the sale of mods using Steam's mod database as a platform (Joseph & Williams, 2015). This was carried out immediately after the feature was announced with a blog post (Valve Corporation, 2015). One moment the platform was the way it had always been and the next moment a mandatory update was rolled out. All of a sudden, the platform afforded the

sale of mods as if they were one of the many full games already on sale on Steam. A mod that was free five minutes ago now needed to be purchased.

Several days later, following intense discussions within the modding community showing serious discontent because of the paid mods program, Gabe Newell went to Reddit, the most trafficked web forum in the world, to ask the community, in public, what was wrong (“MODs and Steam • r/gaming,” 2015). It became clear that the modder community’s way of life was thrown into uncertainty by the commodification of their hobby. How would they handle intellectual property claims, considering that their mods were built on other mods, sometimes with dozens of authors? What about mods that enabled *other* mods to be used? Some anticipated a flood of for-profit mods that would overshadow collective projects that prioritized quality over entering the market at the “right” time. Many worried that it would look like the Apple App Store: a graveyard of cloned games (games that copy the rules of an already existing style of game, but with different code or cosmetic differences). These kinds of projects assumed that the perfect customer was an uninformed customer, somebody who buys what is put in front of them, instead of shopping for the best product. Disconcertingly, existing users of mods would be forced to become customers, wondering whether mods were worth paying for after having enjoyed them for free for so long.

The community pushback, as evidenced by the reddit thread, was so forceful that Valve and Bethesda shut down the paid mods program within the week it launched. This collection of hobbyists and community labourers with Patreon and Paypal⁷ accounts resisted the commodification and capitalist organization of their labour, revolted against two multibillion

⁷ Patreon is a online fundraising platform that continuously bills subscribers who “support” individuals or organizations with a monthly or per project donation. It is used by writers, podcasters, and artists often as supplementary income to support their work.

dollar companies, Valve and Bethesda, and was able to get both to walk away from the decision they had made. Some of the most prominent modders had said they would leave the community because of the program, and the threat of this alongside community dissatisfaction, caused some of the power of these platforms to fall apart. This wasn't necessarily understood consciously as *class struggle*, but it could have been under different circumstances.

Steam's Basic Features: A Short Primer

Before going any further, it's important to have an idea of what Steam looks and feels like. This section is a brief but thorough description of Steam, accompanied by some screenshots to help illustrate what the user experience looks and feels like.⁸

Store

Steam is divided visually into a main "page" that is demarcated by a series of tabs at the top. The Store is the leftmost tab, meaning that it is the first page to open as a default. The Store, as a rule, is always changing in features and presentation, but it remains focused on the task of highlighting and selling games, software, and most recently, hardware. The default page currently features a slideshow that rolls on timer, showcasing recently released or discounted games, about 10 at a time, in 5 second intervals.

⁸ I want to stress that while my dissertation is influenced and guided by thick description as a method, this section is merely a brief description of Steam. The following chapters will do the work of placing Steam more firmly within the paradigm of thick description (Geertz, 1973; Ponterotto, 2006).

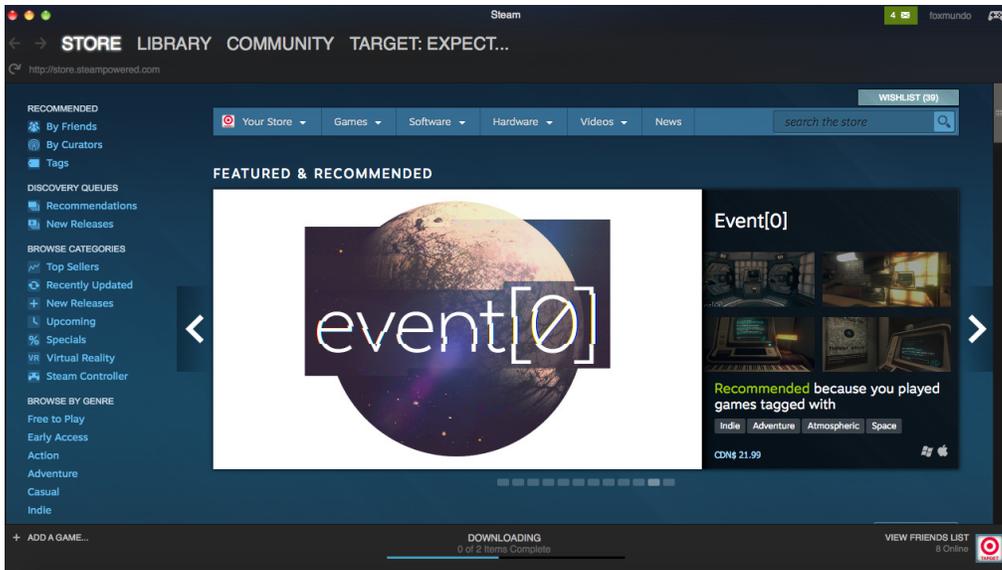


Figure 1. *The front page of the Steam store.*

If a user selects a product, they are brought to its personal product page. It features a slideshow of game screenshots and demonstration trailers, a short text description of the product, and a series of numerical metrics that reference Steam's internal customer review system. Below this content are the user reviews, presented in a way resembling most public user commenting systems on Facebook, reddit, and other web-based services now operate. A comment (short or long) accompanied by a rating.

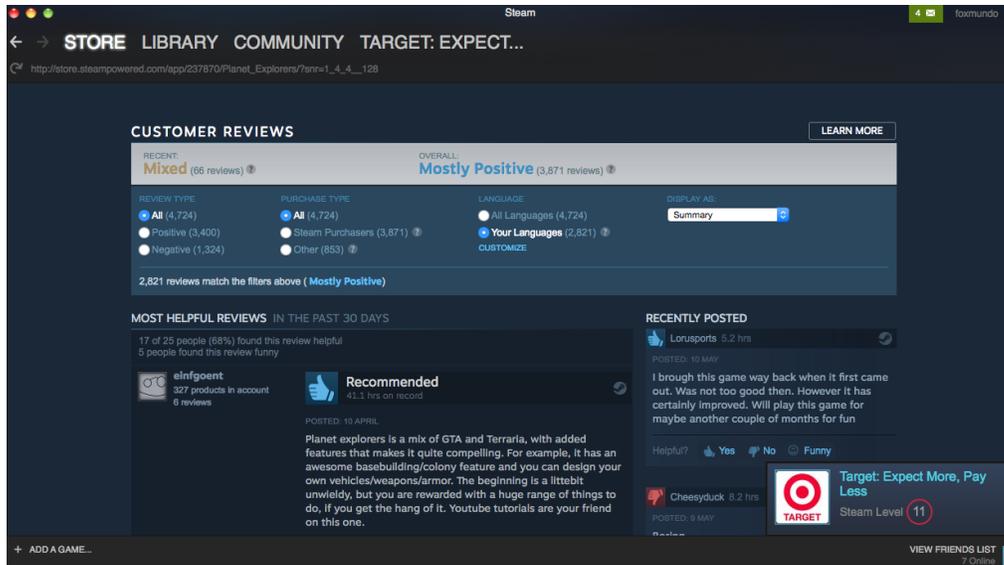


Figure 2. *Customer reviews.*

The store is all about providing as much information as possible within a small space. If a user takes advantage of these, they can then take state of the game’s access to them: they can buy the game, add it to the library, and then download it.

Library

This is where users download and access the games they have purchased through Steam (or where they have routed other games on their PC through the Steam client). It serves a twofold function. One is to provide an organizational tool for people to access their games. The other is to be a portal to the community tools on Steam. On the left side of the screen is a list of their games. When one is selected, in the centre right of the page they are shown what “friends” also play the game, recent news about it, and links to the ‘community hub’ for the game⁹.

⁹ The friends list is populated by other Steam users one adds to it. After they are connected you can see when they are “online” and playing other games.



Figure 3. *The library tab.*

The Library also allows one to “right click” on a game and choose from a series of options, such as uninstalling or backing up local game files.

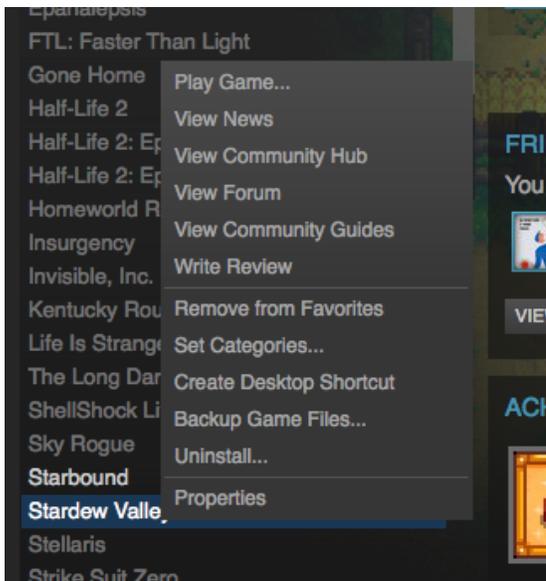


Figure 4. *The multifaceted “right click” menu associated with every game in the Library Community*

The Community tab looks similar to a website, but it’s a window to the user-driven, digital labour-intensive side of Steam. This is where users post on discussion forums, upload

player content like screenshots, artwork, video streams (such as Amazon’s Twitch.tv) and gameplay videos (often originating from YouTube).

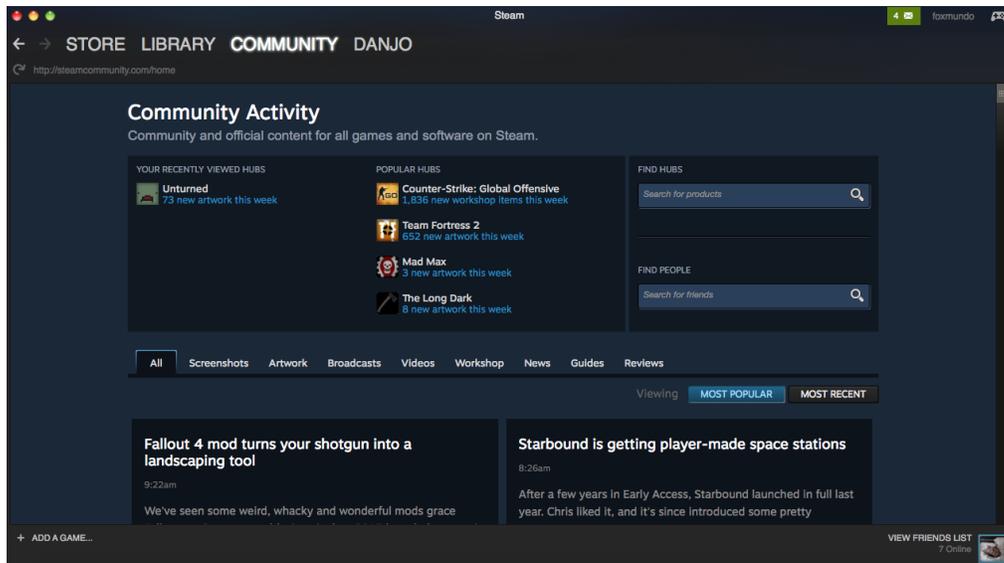


Figure 5. *The community tab.*

The Steam Community Workshop is also located here, which is where some user generated content, such as mods, are hosted. This is significant because the Steam Community Workshop is a fully-integrated component of the platform, and as such regulates the wide variety of “content” that Steam users can see for the games they have. It’s where creators and hobbyists interact with the platform.



Figure 6. *The community marketplace.*

It offers quite a few affordances: one can use the search bar to find official game community hubs and read about games on the platform. Other actions are available too: writing posts, moderating forums, uploading mods, and writing reviews.

User Profile

Because Steam has a fully integrated social network built into it, users can go to this tab to customize their social profile. Here one can post photographs and game screenshots, manage friends lists, and highlight specific user information for others to see.

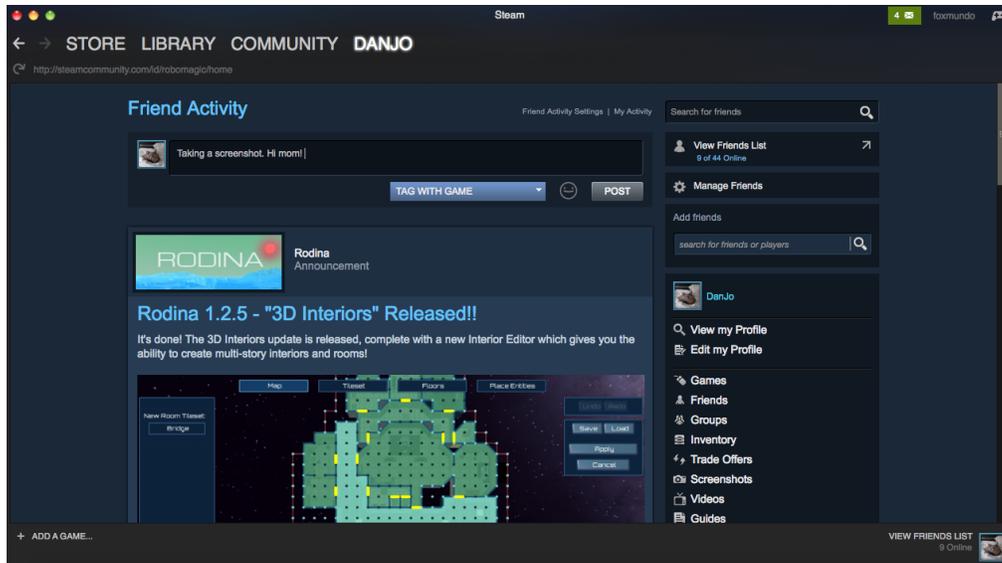


Figure 7. *The profile tab.*

A user on one's friends list can be sent invitations to join in multiplayer games, and it also allows “meta-competitions”, where users can see what in-game goals (in the form of “trophies”) have been achieved.¹⁰

Taken together the Store, Library, Community and User Profile make up the space on Steam in which users interface with games, other users, ecommerce, contracts, and play. Now to make sense of these specific aspects of the platform, a methodological approach is needed that can contextualize each within their wider social, cultural, and economic context.

Methodology

Case Studies

This dissertation is an in-depth study of Steam, subdivided into three distinct case studies, each using a mixed methods approach. Chapter 4 uses thick description and ideological analysis of three promotional sales on Steam; Chapter 5 applies historical context setting and discourse

¹⁰ Cybulski's (2014) research into in-game trophies is relevant here. Specifically, trophies are the front facing product of surveillance and data collection on users.

analysis of the *Skyrim* modding community during the paid mods debate; and alongside discourse analysis Chapter 6 employs economic and spatial analysis of Gabe Newell's talk at the University of Texas in 2013.

A case study approach is a form of longitudinal research that is methodologically distinct from other kinds of time-based research methods, be they qualitative or quantitative (such as cohort or panel studies). Neuman and Robson (2015) describe case studies as objects where “a researcher examines, in depth, many features of a few cases over a duration of time with very detailed, varied, and extensive data, often in qualitative form” (p. 18). Each of this dissertation's chapters constitutes a distinct case; however, I argue that each of these case studies is a different moment in my ongoing study of Steam, and that together they constitute a broader case study of the platform. Some of the data for each case was collected over a series of weeks, and other data (for example, Newell's speech at the University of Texas) happened once (I did not compare multiple public presentations over time to see how they changed in form or content). That particular case study very much resembles what cross-sectional research looks like, but because it is a part of the larger whole, it remains a case study.

The overarching framework of the analysis I present throughout each case study is the operationalization of historical materialism, or Marxism: what Berger (2015) calls “ideological criticism”, which itself is a distinct method. This, of course, is why I discuss in detail affordance theory, and the encoding/decoding model of communication in depth; as Shaw (2017) argues, the former can easily slot into the latter's Marxist framework. Beyond these analytical models, however, it's worth discussing a little more the methods of discourse analysis and thick description, as both inform how I practice ideological criticism.

Critical Discourse Analysis

I use discourse analysis in this dissertation largely because it does the theoretical work of linking language and social action in a dialectical (self-reinforcing) relationship, and slots well into my theoretical and analytical framework. This last point is vital, because, as Jørgensen & Phillips (2002) argue, discourse analysis “... cannot be used with all kinds of theoretical frameworks. Crucially, it is not to be used as a method of analysis detached from its theoretical and methodological foundations” (p. 3-4). Discourse analysis as a method and methodology means that my research isn’t just counting the frequency of words, as one might with content analysis. Instead, discourse is intimately tied to both how the subjects of our research understand and discuss things amongst themselves, as well as how we understand the perspective and biases of those who are doing the analysis.

A tricky thing with discourse analysis is that it is often framed as a methodology *and* a method, adding another layer to any work that claims to use discourse analysis in combination with other epistemological frameworks, specifically Marxist ones. The problem is that as a methodology, discourse analysis comes out of the writing and research of Michel Foucault and his descriptions of what he thinks the relationship between society and discourse is. In other words, some of those who conduct discourse analysis would say that unless a researcher epistemologically understands discourse (the language “above the sentence” as Cameron & Panović (2014) call it) in the same way as Foucault, they are not actually conducting discourse analysis. That’s because unless one interprets language as being tied into the structure of society (and in fact, the epistemological limit of knowledge itself), as Foucault does, it’s not discourse one is analyzing, or making concrete claims about.

I would say that Foucault’s work is, in practice, a product of his Marxist education and his materialist understanding of the world, which (much like Gibson’s (2015) ecological

psychology) starts from a standpoint about the role human action and language plays in the world. For example, Jørgensen & Phillips (2002) make the case that all of the most prominent strains of discourse analysis start from a shared epistemology and assumption about language and the subject. They start from the Structuralist and post-structuralist claim that our access to reality is always through language. They also agree that with language we create representations of reality that can never be reflections of a pre-existing reality. Instead language contributes to constructing what we know as “reality”. Meanings and representations are real, as well as physical objects that do exist, but only gain meaning *through discourse*. Of discourse, Foucault (1972) says in *The Archaeology of Knowledge* that:

We shall call discourse a group of statements in so far as they belong to the same discursive formation (... Discourse) is made up of a limited number of statements for which a group of conditions of existence can be defined. Discourse in this sense is not an ideal, timeless form (...) it is, from beginning to end, historical — a fragment of history (...) posing its own limits, its divisions, its transformations, the specific modes of its temporality. (p. 117)

Firmly placing discourse within history, rather than beyond it, shows the materialist orientation of Foucault’s work and his methodological commitment to a theory of knowledge and society that is distinctly dialectical.¹¹ In this way, I think that discourse analysis is firmly methodologically compatible with my overall project, but also with the theoretical and analytical framework that I set up earlier.

As a method, I aligned practically with some of the specific techniques of analysis and organization outlined in Fairclough’s (2008) conception of “critical discourse analysis”. Critical

¹¹ My understanding of Foucault’s work as materialist in character doesn’t, however, ignore that he had a longstanding critique of historical materialism (Foucault, 1980).

discourse analysis takes the distributed force of power for granted, and looks for the immanent power relations that exist between actors in a “field” (i.e. a distinct social space). I looked for certain, commonly repeated words that stood out upon analysis as having significant ideological weight to them. To help with the analysis, I took the various written and transcribed works chosen for this study and coded them with the qualitative analysis software NVIVO. Having narrowed them down, I then describe in detail the most common words, and discuss how they articulate together into a concrete discourse with different themes and messages.

Description

It’s not enough to simply describe things: the description itself needs to be methodical and analytical. At various points over many of my case studies I use descriptive techniques that are influenced heavily by what some call “thick description”, whose origin lies in the philosophical work of Gilbert Ryle (1971) and the anthropological work of Clifford Geertz (1973). Both of these authors declared that the distinction between “thin” and “thick” description was mostly that of context and intentionality. A researcher could describe actions in simplistic mechanical terms such as “A woman repeatedly uses a purpose-built shaft to hit balls into the same space”. Or they could use “thick” description, and in so doing describe a woman practicing her golf skills, specifically, her drive. Ponterotto (2006) summarizes the method as this:

Thick description accurately describes observed social actions and assigns purpose and intentionality to these actions, by way of the researcher’s understanding and clear description of the context under which the social actions took place. Thick description captures the thoughts and feelings of participants as well as the often-complex web of relationships among them. Thick description leads to thick interpretation, which in turn leads to thick meaning of the research findings for the researchers and participants

themselves, and for the report's intended readership. Thick meaning of findings leads readers to a sense of verisimilitude, wherein they can cognitively and emotively "place" themselves within the research context. (p. 543)

It is with this eye towards contextualization and placing the reader within the structures in and around Steam that I wrote my analysis. While I do not claim that the case studies are enacting what Ponterotto (2006) details as thick description, the work that follows is very much informed by that approach.

This dissertation, then, is a project of mixed methods and a methodology, a melange of materialisms. Case studies provide opportunities for in-depth, rich data analysis. The actions that users take and discuss with themselves are understood through the affordances of the platform, which can only be understood through the "thick description" which contextualizes it. The ways in which technologies are discussed and interpreted are acts of discourse, and discourse is itself both a material process and an ideological justification for things as they are and as the discourse would like to them be. These approaches all combined to create a solid methodological foundation from which I analyzed Steam and the world around it.

Chapter Outlines

This dissertation is an investigation into the intersection of the architecture of Steam with the struggles that take place in and around it. Chapter 2 continues my consideration of the literature on play and the games that define my argument within the field of game studies. I focus on reviewing the formal ontologies of play that came out of 20th century philosophy and liberal sociology that defined games and play in terms of children's socialization rather than leisure's relation to the broader political economy of society. I then demonstrate the inability of these theories to properly encapsulate the current state of play and games within their frameworks,

most specifically their relationship with work and labour. I discuss several contemporary theoretical approaches to games and play, Taylor (2009) and Bojin (2008) whose approaches to games and play are specifically capable of addressing their relationship to work and labour. I then summarize work in the political economy of the games industry.

Finally, Chapter 2 ends with a discussion of my theoretical framework, a combination of affordance theory (Gibson, 2015; Postigo 2016) and the encoding/decoding model of communication (Hall, 1980; Shaw, 2017). This framework provides me with a detailed analytical model that can look deeply into the varied aspects of a platform like Steam. Here is where I establish *how* I draw conclusions and analyze the data I collected. The framework provides me with the tools I need to describe, in detail and with analytical clarity, how a platform “works” in the double sense: how it works for the owners, Valve, and how users labour on it, adding value to it.

Chapter 3, “The Steam Sale”, discusses Dallas Smythe’s concept of the audience commodity, and shows its relevance with a thick description of three “on sale” promotions that took place on Steam in 2015-2016 (Ponterotto, 2006). I make the case that these discounted sales demonstrate a variety of methods and techniques that funnel users through a system designed to solve what I call the “discoverability problem”, which is a unique spatial issue for digital distribution platforms with large quantities of commodities for sale.

Chapter 4, “The Discourse of Digital Dispossession”, elaborates on the political economy and history of Steam. It first returns to consider Marx’s (1990) “commodity fetish” in more depth, as an important starting point to understand the market dynamics surrounding Steam. I then introduce two other concepts, dispossession and enclosure, to show how they are still highly relevant in understanding both the platform and the communities that create commodities on the

platform (Harvey, 2009). Using this framework, I conduct a discourse analysis on the thread Gabe Newell started on reddit, and on how the community of modders created a discourse that was explicitly antagonistic to the dispossession taking place.

Chapter 6, “Space, Shopping and Steam”, continues the discussion of Steam’s role in the marketplace, historically situating it in a wider history of post-World War II consumption patterns in North America. It traces the history of consumption from the town centre, to the suburban shopping mall, to the origin of e-commerce and the digital distribution platforms of today. The case study then pivots to a discourse analysis of a talk Gabe Newell gave at the University of Texas in 2013, in which he discussed the future of Steam as a space where “productive play” takes place.

In the concluding Chapter 7, I review the findings of each previous chapter, and what each contributes to my theoretical argument concerning the political economy of work and play. Work and play should always be contextualized as historical concepts firmly embedded in the society they sprung from, and as such both on Steam are a product of the wider political economy that I constantly return to in each chapter. The struggles of modders to preserve their hobby, the contradictions of space and shopping, and the rise of online distribution monopolies all are products of, and produce, the relationships inherent in capitalism. I also discuss the ramifications of this for future research in game studies. Of specific interest are several areas of research on and around Steam that I think would be worthwhile and important, especially those associated with online gambling and virtual marketplaces. However, before I can meaningfully explore these topics, I need to begin with an in-depth discussion of the origins of several theories of games and play, which I will address in the next chapter.

Chapter 2: Play, Work, and the Political Economy of Games

In *Homo-Ludens* (1944) Johan Huizinga said that his project was to show that “genuine, pure play is one of the main bases of civilization” (p. 5), which certainly seemed to reinforce the notion that “play” as a serious subject had been ignored for too long. Why else make the claim that the core topic of so much of the humanities, civilization itself, is indebted to an understudied and undertheorized concept? Instead of being traditionally categorized as some frivolous activity, here is somebody saying that the play act itself is coded into humans as something almost metaphysical, and which can be co-credited for the wonders of a rapidly industrializing world. The case I’m going to make in this chapter, however, is fundamentally the exact opposite of Huizinga’s: that play (and games) are instead very much products of our civilization, for better or for worse. This is because the question of play is inextricably one of epistemology and materialism. Play cannot be considered in a vacuum separate from work, because play (however a society may define it) depends on the reproduction of human life for it to take place.

In this chapter I describe several major areas of study and theory that I draw on to situate this argument. I first discuss three major theorists of games and play (Huizinga [1944], Caillois [1958], and Suits [1978]), and how each theorised play's relationship to work. This is an in-depth review of their relevant ideas so as to pivot and show the inadequacy of their conceptions of games and play in the face of sociological and materialist analytical categories. I then bring up the ontological discussions concerning work and play in contemporary game studies, and how the work of T.L. Taylor (2009) and Bojin (2008) and others are by far the most useful to those who want to understand the current rich and diverse interactions of games, play and work. I then move on to a summary of existing research on the political economy of the digital games industry, which is where I situate my direct contribution to the literature. Part of

this contribution is to continue to make the case that James Gibson's affordance theory is useful for those of us researching technology and media. I review some concrete examples of affordance theory in media, game and platform studies, showing how it offers a critical toolset to describe what platforms *afford* those who use them. I argue that affordance theory is particularly useful for researchers to make sense of the concrete relationships that humans have with the technology that we labour and produce value for.

Huizinga's Conception of Play

Huizinga's *Homo Ludens* (1944) begins with an account of play in human society, ranging from basic conceptual definitions and a long engagement with Plato to ruminations on the popularity of Bridge. Huizinga's goal is to show that what he defines as "genuine play" is "one of the main bases of civilization" (p. 5). Huizinga's definition of play is broken down into a series of requirements for an activity to be characterized as play. The first is that it must be voluntary, in that it can be deferred or suspended at any time. The participants can, without penalty, stop playing: "... it is free, is in fact freedom" (p. 8)¹². The second element of play is that it must be "disinterested", in that it "stands outside the immediate satisfaction of wants and appetites..." (p. 8). In this way play sits as an activity above both biological and social production, leading Huizinga to conclude that play is unproductive and exempt from material concerns.

The third condition for play is a spatial one, in that play is secluded from everyday life. It must have a playground or stage of some kind. It is "marked off beforehand either materially or

¹² I would suggest that Huizinga's classical liberalism shows through most clearly here in defining play as the ultimate expression of freedom when it is disconnected from productivity of any kind. Losurdo's (2014) argument is that liberalism is a history of ideas that take precedence over material concerns (i.e. private property producing scarcity and poverty, etc.). Play as freedom only when it is unproductive shows that the liberal conception (the idea) of freedom overrides all other considerations of life.

ideally, deliberately or as a matter of course” (p. 10). This reinforces Huizinga’s theme that play is *apart* from everyday life. Whether it is materially or ideally apart is of no consequence, what matters is that both the players and spectators behave as such.

The next condition is that play must create *order*, in that in “an imperfect world and into the confusion of life it brings a temporary, a limited perfection” (p. 10). The rules of the game are clear and demarcated explicitly, in which there is no doubt cast. Deviation from the rules leads inevitably to a game’s “worthlessness”. This adherence to rules in games and play means that games are aesthetic experiences, as much as ludic ones. Play is filled with *tension*. This means for Huizinga that games cast a spell over us “enchancing us” in a way other activities can’t.

In sum, for Huizinga play is a *free activity* quite consciously outside ordinary life and is *non-serious* but at the same time something that absorbs the player *intensely and utterly*. For Huizinga serious play takes place all the time, but it should lack the gravity of life and death, which for him “real work” is comprised of. Work is about the production of food and shelter, while play and games is the production of truth (through inviolable rules), tension and skill.

Most relevant to my work is that later on in *Homo-Ludens* Huizinga reflects on play and games in contemporary civilization, specifically commenting on what he sees as the distorting effects of both technology and the marketplace on them. He argues that the rise of sporting life in Europe and North America was largely due to the specific material conditions of England: the prevalence of local self-government, community solidarity and flat communal land were the perfect conditions for people to develop organized sports and other games. Following this, in the 19th century he notes, with a tinge of regret, both the growing seriousness with which sports are taken, arguing that the “increasing systematization of sport” lead to a loss of “pure play” (p. 197).

From here Huizinga goes even further, arguing that play is nearly nonexistent in modern society due to the creeping influence of the marketplace and the state. This is in contradiction to what those societies that “respected” play did, which maintained a separation between everyday life and their play and games. In modern society this “ritual tie” has been severed. Games thus become “unholy” and “profane”, lacking in organic connection to the structure of society. Here it is worth quoting him at length:

The ability of modern social techniques to stage mass demonstrations with the maximum of outward show in the field of athletics does not alter the fact that neither the Olympiads nor the organized sports of American universities nor the loudly trumpeted international contests have, in the smallest degree, raised sport to the level of a culture-creating activity. However important it may be for the players or spectators, it remains sterile. The old play-factor has undergone almost complete atrophy. (p. 197)

The conclusion one must reach from such proclamations is that play in modern society is distorted from the ideal that Huizinga imagines it to be. For Huizinga sport is “normally” known as play but because it is organized so technically and scientifically that the play-spirit, the childlike quality so important to it, is lost.

Huizinga similarly questions the rise of the play-spirit in commerce and business, saying that some (he doesn’t say exactly who) would say that commercial competition between capitalist firms would be almost playful, as they compete in the market. He notes that statistics do indeed bring a play-like quality to commerce: the idea of “trading records”. Echoing some of the modern concerns about gamification¹³ he wonders about the contemporary (for his time) obsession with the “the fastest crossing” of oceans or the “biggest tonnage” shipped:

13 Gamification is the application of game-like mechanics and systems to non-game contexts and activities.

Here a purely ludic element has, for once, got the better of utilitarian considerations, since the experts inform us that small units - less monstrous steamers and aircraft, etc. - are more efficient in the long run. Business becomes play. This process goes so far that some of the great business concerns deliberately instil the play-spirit into their workers so as to step up production. The trend is now reversed: play becomes business. The play spirit here is tossed around in the market economy - not retaining its purity, but instead utilized to gain notoriety or increase production. Play and work flip-flop, shifting positions as they are manipulated by the market.¹⁴ (p. 200)

Homo-Ludens is a pessimistic book. The thread that ties Huizinga's project together is romanticism for past cultures that venerated play in a way that "modern" western society was no longer capable of. Huizinga's conception of play as a freely agreed upon, non-serious and simultaneously absorbing activity that most resembles the play of children is so far from what he saw in his own time that it was hard to figure out what exactly he wanted society to do about it. Sports and competitive parlour games were just coming into their own in his time. Since the 1940s professional sports leagues have become multibillion dollar businesses while the digital games industry sells more product in games than Hollywood does selling films.

As such, Huizinga's ontological argument about games is intriguing but insufficient for making sense of games and play. Huizinga built a series of arbitrary standards that *he* came up with and then compares all of society to them. This analysis led him to one conclusion: society had lost the "real" spirit of games. My argument would then be that Huizinga is in fact engaging in idealist philosophizing rather than serious analysis. Nothing in the world seems capable of

14 Marshall McLuhan's (1994) relatively brief consideration of games similarly makes the case that this is a kind of false play, mostly because he says that those who "play" the stock market aren't playing a game because nobody actually agreed on the rules.

standing up to his idea of what games and play ought to be, so the question is begged: what utility is this kind of definition to those of us who study games and play? Analysis going forward has to make sense of games and play as they were and as they are now, rather than circling around the fact that they seem to have disappeared. One attempt at this can be found in the work of Roger Caillois.

Towards a Taxonomy of Games: Roger Caillois

Caillois' *Man Play and Games* (1958) was written in direct conversation with Huizinga's *Homo Ludens*. Caillois knows that he is working in the shadow of Huizinga, and as such notes that Huizinga did something that nobody else had done to that point, which was devote his entire attention to play and games. But Caillois' ontological project is distinct from that of Huizinga, who theorized the "play spirit", while Caillois' goal was to theorize a conceptual taxonomy of games. Caillois also attempts to address some of the problems that I have also described with Huizinga, by focusing on games as they are played in society when he was writing, rather than on historical or ideal conceptions of them. This allows Caillois to incorporate into his taxonomy games where the players are workers or where money is exchanged, such as gambling.

First and foremost, games for Caillois have to be a *free* and *voluntary* activity. If someone was forced to play, "It would become constraint, drudgery from which one would strive to be free" (p. 7). Second, they should be *separate* and circumscribed with limits of space and time, defined and fixed in advance (p. 9). They should be *uncertain*, in that the result is not attained beforehand (p. 9). They should be *unproductive*, creating neither goods nor wealth (p. 10). This means that games that exchange property or wealth fall into this category as long as nothing new is made. They should be *governed by rules*, under conventions that suspend ordinary laws while establishing new ones for the duration of the game (p. 10). Finally, they should be *make-believe*,

accompanied by a special awareness of a “second reality” or a “free unreality” (p. 10). Thus, they are “against real life” (p. 10).

Above is a list of minimum formal constraints on games and play, not too dissimilar from Huizinga. What Caillois develops from this are four categories of games that follow these formal rules. They are: *agôn* (competition), *alea* (chance), *mimicry* (acting) and *ilinx* (vertigo). All of these also exist on an continuum between two poles: *paidia* and *ludus*. *Paidia* is defined by chaos: diversion, turbulence, free improvisation and “carefree gaiety”. It is “uncontrolled fantasy”. On the other end is *ludus*, defined by discipline. Instead of anarchic free association one sees a tendency towards binding it with arbitrary rules and “tedious conventions”.

In Caillois’ system social activities oscillate between the four quadrants of *agôn*, *alea*, *ilinx*, *mimicry*, and *vertigo* within the continuum of *paidia* and *ludus*. Caillois’ intention with this scheme isn’t to jam every game and play activity into each category as distinct, cordoned-off types, but to use each to locate broad and specific themes within the games.

Caillois devotes considerable attention elaborating on one of Huizinga’s blind spots: the involvement of money in various kinds of games. Recall that Caillois says that games should still be *unproductive*, creating no goods or wealth. Yet he also argues that wealth can be exchanged *through* them. This is an assertion about the material nature of games, but also about how they fit into contemporary economic systems. Huizinga suggested that money and gambling are corruptions of the play spirit, yet where there are human beings there are games of chance, and not far behind, gambling.

For Caillois, games of chance, or even games of competition, can have material interest for the players. The reasoning is that “The sum of winnings at best would only equal the losses of the other players. Nearly always the winnings are less, because of large overhead, taxes, and

the profits of the entrepreneur” (p. 5). Differing from work or art, no physical good or product is created:

Nothing has been harvested or manufactured, no masterpiece has been created, no capital has accrued. Play is an occasion of pure waste: waste of time, waste of energy, ingenuity, skill, and often of money for the purchase of gambling equipment or eventually to pay for the establishment. As for the professionals - the boxers, cyclists, jockeys, or actors who earn their living in the ring, track or hippodrome or on the stage, and who must think in terms of prize, salary or title, it is clear that they are not players but workers. When they play, it is at some other game. (p. 5-6)

Games of chance are particularly prone to this kind of material interest, but competitive games and advanced forms of mimicry (theatre and film) all can involve “players” who are actually working for their own material gain. In the end for Caillois, however, there *ideally* should be no net gain of wealth for society through the playing of games. They should always consume resources, and never produce any.

Like Huizinga, Caillois worried considerably about the degradation and corruption of games in modern society. Unlike Huizinga, his worry didn't stem from the corruption of the childlike “play spirit” that was the animating factor of games for him. Games and play are not ruined for Caillois because of over-seriousness (in the case of Huizinga's most hated fad of his era: Bridge), but because of the creeping of everyday life into games. For Caillois it is an issue of boundaries. The separateness of games from the rest of life was eroding when he was writing that “If play consists in providing formal, ideal, limited, and escapist satisfaction for these powerful drives, what happens when every convention is rejected? When the universe of play is no longer

tightly closed? When it is contaminated by the real world in which every act has inescapable consequence?” (p. 43).

In other words, this corruption stems from the blurring of the “sharp line” between the ideal rules of the game world with the drudgery of “real life”.

For *agôn*, games are corrupted when the competition continues outside of the official bounded space (p. 46). In this way, *agôn* becomes brutality. If a referee cannot impact the game any longer it is corrupted. For *alea*, a game of chance is corrupted when the player begins to rely on superstition to “influence” the results of the game, robbing the game of its impartial levelling of all players to the hand of destiny. *Mimicry* is corrupted when the mask one wears doesn’t come off at the end of the performance. *Ilinx* is corrupted through addiction to drugs. In each case the line between the real world and that which is sought in play and games is broken down. The ontological and social distinction between the world of play and games and the reproduction of social life disappears and suddenly games become “not just a game”. They become about work or practices of unhealthy moral decay.

What is particularly noteworthy in Caillois is his quadrant of *agôn*, *alea*, *mimicry* and *ilinx* stretched within the continuum of *ludus* and *paidia*. Both combine to form a rhetorically powerful taxonomy of games. This is because of Caillois’ willingness to eschew Huizinga’s (romantic) concept of the “play spirit” and instead rely on the interplay between *ludus* and *paidia*. For Huizinga, all that mattered in “real” play and games was when they angled as closely as they could to *paidia* and childlike glee. Caillois’ doesn’t automatically judge the worthiness of a game entirely on adhering to one end of the *ludus*-*paidia* spectrum. It means that more games as they are actually played are neither excluded nor condemned as corruptions.

If there are limits to Caillois' taxonomy they lie with his insistence that games stay separate from the everyday: their distinctness from real life. Since 1958 the intermixing of the everyday, work, and play has accelerated. One example would be the rise of play and "funsultants" in the corporate world (Andersen, 2009). Another would be the trend of gamification in offices (Deterding, Dixon, Khaled, & Nacke, 2011). If this means most games are corrupted by Caillois' standards, then we live in a society of "corrupted games". I think it would be more productive to insist that activities don't even need to necessarily be distinct from the real world to qualify as a game. Instead, it is better to understand them as games that are entangled with social life. Games are not merely degraded versions of what was once real, but instead reflect the real world while operating through it. Caillois gets somewhat close, but falls short. Another theorist of games, Bernard Suits, has similar difficulty trying to achieve a conceptualization of games without getting lost in their strict definitions.

The Grasshopper

Bernard Suits' *The Grasshopper* (1978) is both unique in its style (it is, for the most part, written as a Socratic dialogue, instead of as an academic text) and its singular dedication to constructing a definition of what a "game" is. This separates him from Caillois and Huizinga, who busied themselves with the concept of play as a starting point for their discussion of games. Instead, Suits assumes play as a given, and starts immediately with trying to fashion limits to his definition of a game. Suits' work is particularly distinct from Caillois and Huizinga because, as a work of philosophy first and foremost, it doesn't engage with empirical examples of games. Instead it is composed entirely of thought experiments as rhetorical tools.

Suits (1978) uses the allegory of Aesop's "The Ant and the Grasshopper" as the basis of his book. What makes this story different is that Aesop's Grasshopper was doomed to die in the

winter, as he had sung all summer. The Grasshopper dies while the hard-working ants live. This was a morality tale about the importance of hard *work*. Suit's Grasshopper, on the other hand, spent the summer playing games and philosophizing about them. At the end of his life, the Grasshopper tells the story of a dream he had to his disciples Skepticus and Prudence, which they take to be a riddle. The disciples then spend their time reflecting on The Grasshopper's definition of games, to understand the dream, and hopefully understand why the Grasshopper valued games so much above and beyond work.

Suit's early, broad definition of games is simple enough: "My conclusion is that to play a game is to engage in an activity directed towards bringing about a specific state of affairs, using only means permitted by the rules, where the rules prohibit more efficient in favour of less efficient means, and where such rules are accepted just because they make possible such activity" (p. 34). To support this early definition, Suits considers the attitude of the game player to be central, and this attitude is the "lusory (ludic) attitude". It is "... the attitude without which it is not possible to play a game" (p. 34). The attitude is the agency of the player that must be *in line* with the game. The lusory attitude unites the goal, the means of achieving the goal, and the rules.

A more analytical definition is as follows: "To play a game is to attempt to achieve a specific state of affairs (prelusory goal), using only means permitted by rules (lusory means), where the rules prohibit use of more efficient in favour of less efficient means (constitutive rules), and where the rules are accepted just because they make possible such activity (lusory attitude)" (p. 41). More simply, "... playing a game is the voluntary attempt to overcome unnecessary obstacles" (p. 41).

The majority of the rest of the book is dedicated to one disciple, Skepticus, engaging in a series of targeted challenges to this definition. Every chapter begins with what Skepticus considers to be a serious logical problem, which is then resolved through different allegorical tales that the Grasshopper tells in return. In grand rhetorical style, they are all surmounted, but only after much consternation.

At the core of Suits' argument is the idea that games are by definition inefficient and done as *ends in themselves*, keeping in line with the general theories put forward by Huizinga and Caillois. They cannot be instrumental, because games are by definition *inefficient* (p. 22). If somebody undertakes an instrumental task in an inefficient manner, they begin to intrinsically value the act of inefficiency itself, rather than the instrumental goal. This very act makes the task itself into a kind of game.

It is through this logic that Suits argues against Caillois' contention that professional players are not really "playing games". Being a game player for Suits has nothing to do with whatever motives one has for playing it. Skepticus challenges the Grasshopper and asks that if somebody is getting paid to play, are they really a partaking in the lusory attitude? Aren't they an imposter or some kind? (p. 143) Suits is very clear that being a player of a game is achieved merely by playing by the rules, not by whether one "believes" in them or not. The attitude towards the game matters considerably less than the attitude toward the rules of the game (p. 143).

Here Suits positions himself between two ends of a spectrum: games as radical autotelism and games as radical instrumentalism. The radical autotelists argue that "unless games are played solely as ends in themselves, they are not really games, that is, that amateurs alone are playing games" (p. 146). The radical instrumentalists, on the other hand, argue that games are

instruments for some other kind of social or biological function, never as ends in themselves. In the middle is Suits' definition: that games are ends in themselves only insofar as the rules are followed, irrespective of the belief in the game.

The problem posed by the professional player is what is elegantly solved here. Even if play is serious, or begrudgingly taken, or forced, what matters is that as long as one obeys the rules one is a player. And because this is the case, the issue about professional players playing games for an instrumental purpose, or about people profiting from the games themselves, does not call into question the ontological stability of the game. A significant part of Suits' definition is that productive, intentional activities are always separate from games if they can be completed, without hassle, with more efficient means.

The reason the three theorists above are important to my argument is that their work impacts so many discussions of what is and isn't a game, and what is and is not play. As such, they very much influence how we understand games, play, and *work*. Work and labour are central to this dissertation, and so is the question of the submersion of play to work. Huizinga argues that games cannot have anything to do with work or productivity. Caillois says games can at least be about the exchange of goods, but are not work, and cannot be productive. Suits says that as long as the players follow the rules, games can also involve work. I would say that these theories lack a solid materialist analysis of what games are. I think that only such an analysis can get at the heart of the relationship between games and play and work under capitalism, which is where my analysis of Steam begins.

An Epistemological and Historical Theory of Play

Even if some of the definitions of games and play describe elements of actually existing games, Brian Sutton-Smith (1971) stated that they will always come up short in their quest to

fully define these activities. “Any earnest definition of play has to be haunted by possibility that playful rejoinders will render it invalid” (p. 213). According to Nis Bojin (2011), one of the biggest problems of defining play and games is that basing one’s definition on the three major theorists I’ve already discussed (and those who are themselves influenced by them) has always relied on stipulative descriptions. This means that these definitions of games and play are *a priori* definitions that are created before analysis begins. It creates a fully transhistorical (i.e. definitions that exist outside of time and space, regardless of context), platonic definition. Going in search of a perfect stipulative definition, that won’t run into a variety of problems with the games it is tasked with defining, remains elusive and ultimately impossible. Bojin suggests approaching game definition through an analysis of the language used to describe play by the players themselves: “Shifting our attention to language, then, how does one come to know what it is that some call ‘play’ to begin with? How does one *know* how to label such a thing when one experiences it?” (p. 2)

To do this, Bojin turns to Wittgenstein and Gramsci. For Wittgenstein, the concept of a game can’t be “contained” by any single definition. Instead, games are a fluid body of concepts that share a “family resemblance” (p. 3). There is no ideal game, shared by all cultures throughout time. It is merely a word, produced by language, which is the product of social customs. A concept like play is “not born of universal truth, but are products of fluctuating and often seemingly arbitrary origins (p. 3).” “Play” and “not play”, “games” and “not games” (work, labour?) then, are both *subjective* and *social*. Their subjective state is incommunicable in the sense that all subjective mental states are *impossible* to communicate in their fullness. To communicate play one might rely on social cues, and these, instead of being purely subjective, are produced and reproduced in conversation with the wider social world. In this way the

material limits of language set some definite limits for what one can know about play. This also renders these concepts *discursive*, in the Foucaultian sense, and subject to change with the accompanying discursive formation (Foucault, 1972).

This means that deception can certainly take place — what Gregory Bateson (1967) calls a paradox of play, “where play is signalled, but is not actually happening” (p. 4). While all the primary ontological definitions of games and play can easily render judgement upon this kind of play (“It is a game!” “No, not a game!” “It depends!”), the situation makes one confront the reality that the knowability of play is still subjective. There are many definitions of play floating around, as personal as they are social. Because of this, play needs to be thought of something that exists with/in culture, subjectively and simultaneously in conversation with history and its material effects.

To make sense of this, Bojin turns to Gramsci’s concepts of “spontaneous” and “normative” grammars. Spontaneous grammars are everyday grammars (words, ways of speaking, social cues) that are constantly changing with everyday life, while normative grammars are set and enforced by whatever the dominant regime is, in the service of whatever their paradigm is (p. 6).

The interplay between spontaneous and normative is intensely political, for very material reasons. In other words, grammars give rise to concepts that are then, through various kinds of social disciplines, taught and learned by the community. Practices are designed, by one method or another. This gives rise to immediate, spontaneous grammars to describe and categorize these practices. The political and economic goals of the social community then take these spontaneous grammars and normalize them, shaping them and disciplining them. These normative meanings are deployed in language, which then go on to influence design.

This visualization of the process of going from many, individual subjective epistemologies that describe social reality, to a (if not fully unified, at least disciplined) catch-all grammar is key. It describes, relatively well, the discursive and rhetorical disagreements about what games and play are, and why they are often so passionately argued. Huizinga, Caillois, and Suits all view games in their own normative frameworks, and in process of writing their books, conduct their own work towards making these definitions of games' *normative grammars*, that very clearly have gone on to influence game design in explicit ways, as in the case of Salen & Zimmerman's (2003) *Rules of Play*, which takes the "magic circle" conceptualization a serious tool with which to guide game design.

A concurrent approach that uses a very different analytical frame comes from Arwid Lund (2014). Lund approaches the question from a Marxist perspective, using two concepts developed by Moishe Postone, "historical-social" and "transhistorical", to describe social practices (p. 758). Historical-social practices are human activities that are subject to the distinct historical moments in which they arise and function. They move through history, rather than above it. They are subject to change based on hegemonic epistemologies and practices. One example of this for Postone is wage labour, which is a historically situated form of production, that has only existed at specific points in history following the development of various classes in society (p. 758). What we understand as wage labour has not always existed, and it can very well dissipate with transformation in the organization of society. Transhistorical activities, on the other hand, are activities that, at least until now, have been with human society from its inception. They could be described as ontological qualities of humanity. These would-be activities like eating, requiring, shelter, or, as Hauser, Chomsky, and Fitch (2002) argue, speech.

The project Lund takes up is to expand on these categories and make the case that *work and play* are transhistorical activities, while *labour and games* are social-historical (p. 1). This relies on a stipulative (i.e. a priori) definition of each category. Lund relies on the argument that humans have always worked in one form or another (they must use their muscles and mental capacities with the resources of the world to create that which sustains them). They also have *always* played (engaged in activities for intrinsic purposes). What humans haven't always done, though, according to Lund, is that they haven't always laboured (i.e. worked as wage labourers) and haven't always played games. What each society has described as a game has morphed and changed with each culture.

So what does this mean? Lund is arguing that one *can* have a universal definition of play that applies to all cultures, but one can't have a universal definition of games (because they vary so much with culture and context). Similarly, one *can* have a universal definition of labour as the process by which nature and humans mix themselves to create use values, but one can't have a universal definition of "work" i.e. wage work. In a sense, Lund adds some legitimacy to the concepts developed by Huizinga because definition of play is useful to analysis of all cultures and groups. Lund then comes out against the concepts of Caillois because a stipulative definition of games is always doomed to fall short.

I think that both Bojin and Lund are in pursuit of the entwined but different aspects of the same questions: what are games and play, and what is their concrete relation to work and labour? They come to a different theoretical answer for both through different avenues: Gramsci and Wittgenstein for Bojin, Moishe Postone and Marx for Lund. Bojin is looking for a way to analytically make sense of the wide epistemological explanations of what games and play are, and as a result has to engage with the limits of language. Lund, on the other hand, is interested in

linking Marxist theory on the historical specificity of wage labour in order to critique Kücklich's (2005) concept of "playbour".¹⁵

Here I side with Bojin over Lund for a few reasons. The first is that I am unsure that trying to craft transhistorical concepts is useful analytically, or even working in fidelity to historical materialism as a methodology. It requires what I think is a historically naive assumption that in the future humanity will continue to be biologically as well as socially the "same". We can certainly rely on a variety of disciplines to confirm that certain aspects of human culture and biology have been with our species from the beginning, but those things just can't be counted on in the future. Donna Haraway's (1991) theory of the cyborg as a historical, embodied conceptualization of an ongoing process of change within humanity (i.e. that humans are changing constantly) comes to mind. Lund's work doesn't engage with such theories, which might be some of the most relevant to the question of transhistoricism. One has to be as open to changes in our interpretation of the past as to changes to the human condition in the future.

Bojin (2008) avoids getting bogged down in these ontological debates, and focuses on the practical limits to both speech and social practices. Work and play are articulations of power, economics, and discourse, and as such are situated concretely in society as it is right now. Focusing on analyzing these worlds through both empirical observation as well as through the discourses that surround these activities allows a researcher to get closer to their meanings and effects on the people practicing and engaging with them. It is in this tradition that I see my work,

¹⁵ Lund's argument is conceptually rigorous, and eventually makes the case that "playbour" is an inaccurate term to describe what the subsumption of games and play into wage labour is. Lund argues that it is actually "labourgaming" or "gamebouring" that is going on when players and gamers produce value. This is because "games" (as we currently understand and define them) and "wage labour" are both social-historical practices firmly situated within capitalism (Lund, 2014).

which is why the areas of game studies I find most useful approach games and work from a similar perspective.

While in dialogue with the above theorists, game studies is more diverse in scope and analysis, reflecting a variety of disciplinary methodologies and questions. A major portion of research has focused on analyzing the narrative and ludological qualities of games. I see a line between a work like Janet Murray's (1998) *Hamlet on the Holodeck*, which argues for new methods and approaches to understanding digital narratives, and Ian Bogost's work in *Unit Operations* (2008) and *Persuasive Games* (2010), both of which propose a mode of criticism based on the unique properties of digital games. Similarly, writers like Espen Aarseth (1997) and McKenzie Wark (2007) approach games as texts to read and apply structuralist and post-structuralist techniques to.

This approach, while important and valuable to game studies, is not what this dissertation is addressing. I instead engage directly with work that has studied games as social practices, enmeshed in the material world. Games are played not in a vacuum, in the ideal space of the mind, but in an *assemblage* of material and social actors, what T.L. Taylor (2009) calls the "assemblage of play" or what Michel Foucault (1972) would describe as a discursive formation. At the practical level, this kind of work has tried to focus on topics that were originally glossed over or forgotten in the study of games. This newer work in game studies made sure to focus on that which wasn't necessarily on the screens: industries, haptics, culture, hardware, etc.

One approach to situating games has been to look at a game's hardware, software, manufacture, and social context. This has been the goal of platform studies, which has analyzed the hardware and software of popular consoles like the NES, Atari VCS, Nintendo Wii, and others (Montfort & Bogost, 2009; Jones & Thiruvathukal, 2012; Maher, 2012). Sociological

accounts, the majority of which focus on Massively-Multiplayer Online Role-Playing Games (MMORPGs), see games like *World of Warcraft* as a medium of social interaction. They are “intriguing venues to observe the structures, cultural norms, dynamics, and self-perceptions of online social groupings” (Taylor, 2006). Because virtual worlds like Blizzard’s *World of Warcraft*, Linden Labs’ *Second Life*, or CCPs *Eve: Online* offer sociologists relatively stable social spaces, they seem readymade for sociological work conducted on participants inside them (Ducheneaut, Yee, Nickell, & Moore, 2006, 2007).

Researchers have also focused on understanding gamers and game culture from perspectives not “inside” virtual worlds. For example, studying MMORPG players in a laboratory setting (Bergstrom, Fisher, & Jenson, 2016; Bergstrom, Jenson, Hydromako, & de Castell, 2015; Fisher & Jenson, 2017; Jenson, 2015; Taylor, Jenson, de Castell, & Dilouya, 2014), and through ethnographies of competitive *Halo 3* (a first-person shooter) players (Taylor, 2011). Of particular note is T.L. Taylor’s work, which bridges the divide between these two approaches of research in virtual and physical spaces. 2006’s *Play Between Worlds* follows Taylor’s journeys in the virtual world of *Everquest* and the fan conventions associated with them. In 2012, she published *Raising the Stakes*, which stands as the most comprehensive study of competitive gaming to-date, following players as both digital superstars and because they were paid, labourers.

More recently the question of gender in games has turned back towards a methodology that works inductively, focusing on geographic communities, and in-person interviews and surveys (Bergstrom, Fisher, & Jenson, 2016; Fisher and Jenson, 2017; Jenson & de Castell, 2010, 2013; Jenson, 2015). Fisher & Harvey’s (2013) use of feminist action research methods to interview and work collaboratively with is a great example of this. They and a local group of

women worked together through a government funded women in games initiative. Similar work, such as Nick Taylor's (2011) study of competitive *Halo 3* players also stands out as an example of games' research influenced by feminist methodologies, that work in concert with accepted qualitative sociological and social science methods to understand the *sociology* of games. These studies all come in the wake of Jenson's (2015) and Jenson & de Castell's (2010, 2013) work on gender, games, and education, all of which contextualized the gendered qualities of games and technology.

The importance of a focus on gender in game studies is that it consistently re-orient research back towards social questions rather than idealist ones. In reflecting on the ways game studies has highlighted formalist and ontological theorists while de-centering social considerations, work on gender brings game studies back to material considerations. When one asks who gets to make, theorize, and play games, one brings game studies back towards questioning the structuring relations that make it all possible. This questioning brings me to the political economy of games, which focuses on this relation specifically.

The Political Economy of Games

Work on gender in gaming has a strong affinity with work on the political economy of the digital games industry. The latter is an area of study that combines both the political economy of communication and game studies. Vincent Mosco, in *The Political Economy of Communication* (2009), describes political economy as “the study of the social relations, particularly the power relations, that mutually constitute the production, distribution, and consumption of resources, including communication resources” (p. 2). The political economy of communication has focused extensively, then, on the functioning and ownership patterns of telecommunications

companies (McChesney, 2008), and more recently, internet platform owners like Google or Facebook (Fuchs, 2010, 2012).

When it has come to research concerning the political economy of digital *games*, there have been two major works that have set the tone for what has come after: *Digital Play: The Interaction of Technology, Culture, and Marketing* (2003) by Klein, Dyer-Witheford, and de Peuter, and *Games of Empire: Global Capitalism and Videogames* (2009) by Dyer-Witheford and de Peuter. The former is the first fully coherent analysis of the role digital games play in capitalism, by discussing their place in a distinct chain of production, from the highly technical labour in the AAA game studio, to the “production of consumption” through advertising and marketing. *Games of Empire* extended the general thesis of *Digital Play* into a more general theory of digital games under capitalism. The book weaves its way through various aspects of the games industry to contextualize it within a chain of exploitation and war around the globe.

Games of Empire sits at the intersection of media theory and political economy, and focuses on developing a particular strain of Autonomist Marxism as its analytical toolset. It builds specifically on the categories developed by Hardt and Negri in *Empire* (2001), with a special focus on “immaterial labour”. Dyer-Witheford and de Peuter offer up a critique of digital games. They focus on three topics: the labour which produces digital games, the ideology and social practices inside virtual spaces/narratives of digital games, and the liberatory potential of games that are themselves criticisms of capitalism. These could also take the form of radical interventions in digital space. One chapter is devoted to the construction of Microsoft’s Xbox (for example, it investigates the origin of conflict minerals like coltan). Another addresses the ideological content of games like *Grand Theft Auto: Vice City*. As a result, the scope of the book

is very wide, and the theory totalizing.¹⁶ It's contribution to work like mine, which similarly approaches the digital games industry from a critical standpoint, is massive.

Another important contribution to the political economy of games is Edward Castronova's work on the economics of virtual worlds. He has written about life inside virtual worlds (such as *Second Life*), the economics of games like *Everquest*, and more recently, the rise of virtual currencies like Bitcoin (Castronova, 2001a, 2001b, 2006, 2007, 2009, 2014). Castronova's main focus is on the *reality* of labour and virtual currencies as holders of value. In this work, he takes great pains to show how to ignore the importance of virtual worlds is to ignore an area of economic growth and market "innovation" on which the future will become increasingly dependent. Methodologically these accounts are indebted to quantitative tools in the discipline of economics, and so his work focuses on questions of value and utility, with a conceptual commitment to neo-classical economic paradigms.

Other work relevant to the political economy of the digital games industry comes mostly in the form of writers in game and media studies addressing questions about work and play, much as the ontologists of games did. In the early-to-mid 2000s, value and games start to get some attention. Lev Manovich's (2002) *The Language of New Media* argues in the context of new media and its ancillary industries that working on media in one's free time adds value to the media's valuation by its owners. Journalists like Julian Dibbel also explored these questions in magazines like *Wired*. For example, 2003's "The Unreal Estate Boom", wherein Dibbel juxtaposes a Wonder Bread salesman's real house and low-paying job to his living like a feudal

¹⁶ I do not mean to suggest that "totalizing theory" is a sufficient critique of social theory. Instead I think that the analytical framework offered by Dyer-Witheford and de Peuter (2009) comes up against the limits of Hardt and Negri's theoretical framework. This framework is useful as a meta-social analysis, but because it doesn't work closely with theories from game studies proper, has difficulty making much sense of the games at a theoretical and practical level. See Simon (2011) for a more in-depth critique.

lord in *Ultima Online*. Finally, I want to highlight discussions that have focused on “mod” making, where debate about what constitutes digital labour has been productive in answering some important questions relating to the political economy of games.

Modding and Digital Labour

Video game mods, which are fan or user-created additions to existing digital games, have been around since the early days of gaming on personal computers. A key part of mod making practice was that the game developers would allow people to create mods, but not to sell them. Hector Postigo (2003) argued that modders then controlled, if not outright owned, a “means of production”, by becoming “professionals” in an attempt to escape market alienation. Modders wouldn’t sell their mods, but they would use them as a learning tools to hone their game design skills or as portfolio pieces to advance their career. In the process, digital game developers and publishers benefited from this unpaid labour, as the mods extended the shelf life of the core games. Postigo wanted to address the tension between hobby and profession that was evidenced by mods. He wrote that: “Perhaps it is not only that regimes of accumulation and consumption have changed to make hobby and leisure commodifiable, but that they have always held value for human beings, they have always been market alienable” (p. 605). Postigo claims that what has changed is while modders own the means of production, accumulation is now taking place through a new class of digital rentiers. This is because while the modder might exercise their skills independent of a wage relationship, they still weren’t actually self-employed or a producer of value for themselves. All of their productivity was captured (in its monetary form) by the game owners.¹⁷

¹⁷ It’s worth pointing out here that modders don’t actually own the programs they use, or the products of these programs and their labour. Instead they are tied to a variety of End-User Licence Agreements that restrict their ownership (Küchlich, 2005).

In 2005 Julian Kücklich focused on this relationship, arguing that modders are being slotted into a very specific kind of accumulation, coining the term “playbour” to describe what they do. For Kücklich modding is specifically reincorporated into capital in the form of marketing. Drawing on Klein et al (2003), he writes of “closing the loop” between consumer and corporation. In addition to helping corporations realize value, modders conduct simple labour, refining and releasing new code, often reducing research and development costs. Ultimately the labour that is “played” by modders and players is directly incorporated into the value of the videogame as commodity. Postigo and Kücklich’s research were both early attempts to examine the tension at the heart of mods: people creating objects that were socially useful to themselves (to play with!) but which also imparted economic “value” to the owners of digital games. Significant sections of this dissertation will further address these concerns, and expound upon them.

Affordance Theory, Play, Games and Platforms

The questions I want to answer about Steam demand nuance and clarity, and so the theory that I have chosen reflects that: Gibson’s (1986) affordance theory (and those who have mobilized it in game studies and elsewhere) and Stuart Hall’s (1980) encoding/decoding model of communication. Both of these theories are then unified in the work of Shaw (2017). What these two frameworks allow me to do is analyze the concrete actions and forms of labour performed on Steam, as well as contextualize it within a wider social reality.

Gibson (1986) describes an affordance as something that the environment “provides or furnishes, either for good or ill” (p. 119). As for affordance as a noun, Gibson says that he “made it up” (p. 119). An affordance is always relative to the animal or object it stands in *relation* to.

Because of this relativity, I see the concept of affordances as being a dialectical process¹⁸ - always moving from mental state to physical action and back again. Gibson elaborates:

An important fact about affordances is that they are in a sense objective, real, and physically unlike values and meanings, which are often supposed to be subjective, phenomenal, and mental. But, actually, an affordance is neither an objective property nor a subjective property; or it is both if you like. An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behavior. It is both physical and psychological, yet neither. An affordance points both ways, to the environment and to the observer. (p. 121)

This is one of the simplest explanations of the dialectic between thought and action, theory and praxis I have come across, showing how there is not some separate mental world locked away from the “real world”, but instead a constant interplay of bodies, thoughts, actions, and materials.

Gibson’s theory of affordances relies on the premise that the core of interacting in the world as an animal (and a human) is *perception*. He describes affordances as the things that we can see with our eyes and feel with our other senses. They must be perceived. But to perceive quite a few affordances, people must learn how to recognize them. Through this learning, even more affordances are revealed by the environment to the person.

Environments afford basic things like support (via flat, horizontal surfaces) or submersion (via liquids). Vertical flat surfaces afford walls or barriers. Slopes afford walking (if easy) or climbing (if steep). Objects in an environment afford all kinds of things, especially if

18 Gibson’s theory has some distinct affinities with historical materialism. Gibson’s (1986) relational ontology of thought and material world sounds similar to how Engels (1963) says that historical materialism “comprehends things and their representations, in their essential connection, concatenation, motion, origin, and ending” (p. 33). Similarly, Lukács’ (2011) work on the subject-object relationship develops this further. It is for this reason that I think ecological psychology is a useful analytic paradigm to consider for those working with Marxist categories.

they are manipulatable by human hands. They could easily become tools that open other affordances. A rock can afford one the ability to hammer a nail but not as accurately and cleanly as a purpose-built tool, like a hammer. And even then, the hammer is only useful if one knows how to use it the “right” way.

The objects and environments, and as such the affordances, I’m interested in are more complicated than simple tools or flat, horizontal surfaces. Gibson’s theory likewise takes this into account. Take, for example, his discussion of a postbox: “... the real postbox (the *only* postbox) affords letter mailing to a letter-writing human in a community with a postal system” (p. 130). Mailing a letter is a complicated thing filled with all sorts of activities that we have to learn and assume. We have to know that the postbox is emptied every day and that the letters are transferred from mail carrier to sorting warehouse to truck or airplane and then back into another postbox. The affordance here is complex, yet “common sense” to those of us who have lived with a postal system all our lives.

What does Steam afford? It affords buying and downloading games to game-buying and game-playing humans in a vast worldwide community with a globe-spanning networked communications system. The next chapter focuses on the consumer relationship with the platform, but it’s important to remember that such a relationship is between the platform and a consumer, and there are many other ways to approach the platform: developer, mod maker, hacker, etc. Other chapters in this dissertation focus on these relations with Steam. It’s important to keep in mind that small affordances build together to make “big” affordances. Navigating menus, looking at advertisements, etc., are all a part of the affordances that capture digital labour, produce audiences to be sold to marketing companies, and encourage these same audiences to make purchases. By establishing what these small affordances are, one can start to make sense of

the bigger affordances. One way of addressing small affordances in game studies using Gibson's theory is through the work of Jonas Linderoth (2013).

Affordances and Media: Two Interventions

Jonas Linderoth's (2013) work explicitly uses Gibson's work as an illustration of one way in which the theory of affordances can be used to analyze and understand digital media.

Linderoth's goal is to show that the distinction between digital and non-digital games is arbitrary if one is trying to categorize and understand what games allow people to do. For example, does it afford the navigation of an avatar through a series of obstacles (such as *Mario*), or does it afford the competitive bouncing of a ball through a goal (like in *Pong*)? In other words, using affordances as an analytic to look at games focuses on what "game-play" looks like, and categorizes from there. It makes judgement calls based on what the game does, not what it can or cannot be. Linderoth is particularly interested in the link between perception and action as closely related functions in an ecological system. "Action" refers to one's engagement with objects, events, places, animals, and other humans. People make actions to gain more information so they can better perceive the world. For example, they could move closer to an object to see it better, or pick up something small and feel its contours to understand its possible uses. Linderoth cites Eleanor Gibson's (1991) elaboration on this process, and the distinction between two kinds of action:

Perceiving and acting go on in a cycle, each leading to the other. Perception occurs over time and is active. Action participates in perception. Active adjustments in the sensory system are essential. But action itself may be informative, too... Actions have consequences that turn up new information about the environment... All actions have this

property; but it is useful to distinguish *executive* action from action as *information gathering*. (p. 601)

In other words, executive actions both change the state of things and the environment itself. Information gathering actions reveal new affordances to change the state or environment.

It is also important to keep in mind that there are affordances for *changing* affordances. Linderoth gives the example of a ladder that can be moved from place to place. Carrying a ladder is an *executive* action that changes the affordances of an environment. “We use some affordances in a situation in order for other affordances to emerge. Thus the environment can be said to have affordances for gaining other affordances” (p. 6). Linderoth builds on this scaffold to analyze “game-play”. He describes two kinds of actions players might take while playing a game: *performatory* actions and *exploratory* actions. For example, a game of chess affords the player the *exploratory* action of leaning over the board to see the play space from all angles. A digital game like *Escape from Monkey Island* affords *exploratory* actions like hovering a mouse cursor over objects on the screen. When the mouse is hovered over on-screen objects, it displays a context sensitive icon, showing the player which parts of a digital environment can be interacted with. This kind of affordance would be very familiar to those who use contemporary the graphical user interfaces that are now standard on most computer operating systems.

The exploratory actions then lead to *performatory* actions in the game. In a game of chess, for example, I can move my pieces around according to the rules, hoping to take my opponent’s king. In *Escape from Monkey Island* I can manipulate objects on screen to solve puzzles to advance the storyline. These actions can be transformative: they create new affordances and opportunities for other actions.

Important to Linderoth's argument, and mine, is that affordances cut across the digital/analog divide. Executive and exploratory actions can be digital or analog, on a screen or physically manipulated with one's hands or body (and after all, isn't the dominant input into a computer primarily through physical actions like keystrokes and hand movements with a mouse?). Just because I look at Steam on a screen doesn't mean that there is a qualitative break in reality. Instead, it is just a different medium through which affordances are available to be perceived. I think that the digitality of something like Steam has concrete, practical effects on what affordances are offered, much as the physical conditions of an environment would. Yet it isn't an ontological divide that some might suggest about "virtual" digital technologies. Digital objects have a physicality too. They are material. And the material qualities of objects and institutions matter in different ways. Small, spatially bounded affordances always fit into the larger system of society and production, which is why the encoding/decoding framework of Stuart Hall (1980) remains as relevant as ever to draw a link between media and a meta-analysis of society.

Encoding/decoding and Affordance Theory

In his article "Encoding/decoding", Stuart Hall (1980) discusses three distinct "moments" that are central to the production of communication: the relations of production, technical infrastructure, and discourses of knowledge. Hall's goal was to reconcile some elements of post-structuralist semiotics of language (which tended to put theoretical weight on the impermanence and slippage of meaning) with Marxist political economy (which stressed the economic basis for much of culture, including language). While semioticians had studied how language is a structure built upon a series of formal and informal rules, they had, for the most part, not looked at the cultural and economic conditions that gave rise to such structures (Jørgensen & Phillips, 2002).

In other words, they had not looked at how meaning and language was produced and reproduced by the economy in much the same way other cultural institutions were. Marx, and those working in the Marxist tradition, have written about the importance of communication at various times. In *The Communist Manifesto* (Marx & Engels, 1848), for example, Marx wrote about the importance of communication technologies and trains to the growth of the workers movement in the 19th century. Others like Valentin Volosinov (Voloshinov & Bruss, 2013) and Mikhail Bakhtin (1965) had written about how language and consciousness was produced, and how that was reflected in literature and the rise of powerful explanatory ideologies like Psychoanalysis. Hall's work deepened this tradition of studying communication.¹⁹

Hall's categories lend clarity to understanding, sociologically, how communication operates. The relations of production describe the economic context of the production of messages: why is this kind of message being produced? What are the driving forces behind that production? Personal satisfaction or profit? Discourses of knowledge describes the norms and structures of language that inform how people understand and “code” their own messages, but also how they decode and thus understand messages. Finally, looking at the technical infrastructure of communication shows how technologies come with their own set of preformed discourses, grammars, possibilities, and constraints.

19 Recall for instance, Marx and Engels (1932) in *The German Ideology*, discussing “the ruling ideas”: “The ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society, is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. The ruling ideas are nothing more than the ideal expression of the dominant material relationships, the dominant material relationships grasped as ideas; hence of the relationships which make the one class the ruling one, therefore, the ideas of its dominance”. Marx and Engels are merely saying that the ideas of those in power will be better disseminated because they control the means of mental production (printing presses, scribes, publishing houses, radio towers, internet infrastructure). Those with other ideas are still around, they just aren't the dominant ones.

On the production side, texts move through the process of encoding meaning structures into a program as “meaningful discourse” (p. 93). On the consumption side, texts follow the same process but in reverse: decoding meaning structures in the context of the discourses of knowledge, technical infrastructure, and the relations of production. These stages in the production and consumption process are described by Hall as “determinant moments” (p. 93). The message must pass through all of them, each with their own logics, limits, assumptions (and as Shaw would argue, affordances).

When a piece of new media is “encoded”, it is designed for specific tasks by a designer. To get through this process, the media itself had to be created using the technology available, the discourses of knowledge that inform and justify its creation, and the relations of production and consumption that it exists within. All of this produces a meaningful “object”: an interface. The interface is distributed to a consumer, where it is then decoded for intended uses (dominant/hegemonic) or emergent uses (negotiated or oppositional) in the context of the available discourses, technologies, and relations of production and consumption.

Adrienne Shaw’s (2017) article, “Encoding and Decoding Affordances: Stuart Hall and Interactive Media Technologies”, marks another important component of affordance theory that connects it to the political-economic semiotic theories of Stuart Hall’s (1980) “Encoding/decoding”. Shaw proposes a model that “looks at the encoding/decoding of designed affordances to better account for power, resistance, and interactivity in digital media environments” (p. 2). Shaw follows the same circuit for new media and digital games, but because she is looking at the affordances of them, the circuit introduces “consumption” at both sides, showing how relations of production and consumption are not just linked, but often taken place at the same moment. It can be difficult not to produce and simultaneously consume new

media simply by using them. For example, using Facebook involves writing status updates, which produces content for Facebook's ad algorithm. At the same time, one "consumes" Facebook by posting status updates too, as one seeks discussion and social activity via likes and comments.

Hall's work focuses on questions of production and conflicts over the means of production in communication and culture. How is ideology physically produced and disseminated? How are media filled with *meaningful* content? Hall shows how a television program is influenced by the ecosystem in which it exists: technology, economics, and ideology all play an important role in the production and consumption of messages. Shaw takes this framework and explicitly lays out how it can be adapted to the specific nuances of new media and video games.

Some scholars, such as Costall and Richards (2013), argued that Hall's theory was "representationalist" and that a theory of encoding and decoding suggested that objects were devoid of any properties (affordances) unless people coded them as such with their minds. In other words, Costall and Richards were making the case that affordance theory and encoding/decoding (or, charitably, semiotics) are theories of epistemology, and that ecological psychology is preferable. They wanted to say that a door remained a door, regardless if somebody encoded it as such. It affords a space to move between a wall no matter what.

Shaw makes a convincing case that Gibson's (1986) affordance theory extends and deepens Hall's original formulation, rather than coming into conflict with it, in large part because of the similarities at an ontological and epistemological level with Hall's materialism. Gibson's fidelity to radical empiricism shares an ontological and epistemological conclusion about reality with materialism, that it is a process of a thought and action in interrelation with each other: "...

meaning can only be expressed through systems of representation, and individual signs only mean things in relation to a system of meaning. Individuals construct meaning within these systems” (p. 8-9). My criticism of Costall and Richards (2013) would be that they fail to understand that at the ontological and epistemological level, Hall is deeply indebted to Marx, Engels and Althusser. Without criticising the basis of Hall’s framework, saying that encoding/decoding is representationalist fails to convince. It fails to take into account that encoding/decoding is, at its core, a political-economic critique of media production at the mass industrial level, and aims to address media production at this scale. It plainly is not a fully coherent theory of epistemology and human action. For that, one must tangle with and critique the core elements of historical materialism.

Shaw’s analytical model shares the simplicity and explanatory power of Hall’s by relying on the *dominant/hegemonic*, *negotiated*, and *oppositional* reading positions.²⁰ For example, the hegemonic reading of a text fully accepts the story that the encoder intended. A negotiated reading will accept some elements of the message, but not all. An oppositional reading will interpret the message in a way that opposes its intended meaning. But Shaw adds needed complexity to it to account for the interactive qualities of new media. Hall’s original model was constructed to analyze the production and consumption of broadcast media the elements he was most interested in. New media, such as social media or digital games, add a layer of complexity because they have content that will be consumed but provides affordances for action and the production of additional content, such as user-generated. That being said, broadcast media are considerably more interactive, as evidenced here, than some media scholars give them credit for.

²⁰ It’s important to note that Hall’s description of the different modes of decoding were derived in part from the work of his contemporary in British cultural studies, Raymond Williams. For more, see Williams (1995).

Understanding the positions of decoding requires understanding of the relational context of each, and the power dynamics involved. Shaw (2017) elaborates, saying that:

What counts as dominant, negotiated, or oppositional use is intrinsically linked to who has the power to define how technologies should be used. When feminist and queer indie game designers appropriate the hypertext program Twine to create short, powerful games, often based on personal narratives, these texts are derided as ‘not being real games’. They fail to abide by dominant definitions of what games should be and how Twine as a program is meant to be used. (p. 8)

Shaw stresses how those in and around the production and consumption of media decode and interpret the use of technologies must always be viewed in the context of dominant and counter-hegemonic ideologies and conditions. The question is *who* gets to say what is and isn’t the “right” way to use technologies. Both Linderoth (2013) and Shaw (2017) provide some important analytical takeaways. Linderoth develops the concepts of executive and information-seeking affordances, and shows the dialectical relationship between both. These two kinds of affordances help describe what technologies, platforms and new media offer as possible actions. Shaw’s extension of Hall’s theory sets these actions in dialogue with the power relations that define the production and consumption of media. These theories give me the tools to make sense of the micro-level affordances of individual technologies and the macro-level analysis of the political economy of media in order to contextualize them. They cut across social scales and space.

Affordance Theory and the Work Task

Affordance theory is also useful for another function that I will be touching on in this dissertation: describing how labour takes place. More specifically, it describes what the means of

production *afford* those who labour with them. For Marx (1867), what makes capitalism distinct is that the two central classes, the bourgeoisie (capitalists) and the proletariat (workers), have an oppositional position within the reproduction of society. The defining feature of capitalists is that they are in possession of capital, which is any natural resource, land, labour, and technology, that they put into motion to create more capital. The workers, on the other hand, can only sell their labour power for a daily wage. The two sides both have something the other needs: the capitalist needs a person to put their capital into motion (tools, machines, etc.), and the labourer needs the wages the capitalist promises to pay them, as they have no other way to pay for or produce the goods necessary for survival. The majority of workers end up labouring on and with the machines of capitalists not because they want to, but because it's their only option in life.

Even with the cards so stacked in the favour of bourgeois interests, there is still a constant drive to ensure that technology is always oriented towards the interest of the ruling class, and this was key for how Marx addressed technology and machines. Marx argued that technology is inextricably linked with the interests of those who create it. The process of production is constantly transformed and revolutionized by the general drive for the accumulation of capital. Partly this comes as a result of the competition between capitalists in search of what Marx (1867) calls “relative surplus value”²¹, but also as part of the class struggle, to ensure the constant deskilling and fragmentation of labour, which in turn ensures that workers never have too much control over it. The more control that workers exercise over their workplace, either the space or the task itself, the more opportunities exist for them to struggle against the owners of the means

21 Relative surplus value is one of two forms of surplus value that is generated through the exploitation of labour. It is achieved by having a privileged position within the generalized sphere of production. An example might be a factory that is closer to a power source (reducing the cost of shipping that power source to the factory). Another would be having access to a new machine that increases productivity of each worker. The other form of surplus value is absolute surplus value, which is produced either by “sweating” one’s workers (making them work harder in a fixed period of time) or by extending the length of the work day (Marx, 1990).

of production. One of the most important ways to exercise control over one's job, and push back for higher wages and better conditions, is to have unique skills that would be difficult to replace. The higher the skill of the worker, the more likely they are to have leverage over such things (Braverman, 1974).

It is this dialectic over who controls what form labour takes, a dialectic between skill and the deskilling/fragmentation of labour, that affordance theory can be valuable in analyzing. Specifically, affordance theory describes the concrete ways in which a space affords those who use it. It describes what a machine can afford to those using it, and then it can scale up by describing the ways in which a group of people can use machines and space. Harry Braverman's (1974) work was a deep examination of the sociology of the work task, and how labour in the transition to the "post-industrial" economy was affecting traditional workplaces like machine shops and factories. But he also stressed that the labour dynamic was playing itself out in the service sector as well as in "high skill" environments like offices and computerized work (p. 330). In effect, Braverman was theorizing the deskilling and the fragmentation of digital labour, labour that is mediated through the technologies enabled by the revolution in personal computers. Affordance theory provides an tool to analyze the way labour and tasks are organized, the skills they require, and the ways in which platforms and software mediate and shape the form of labour that these tasks take.

The struggle over the way labour is shaped in digital spaces is just as real as the way it is shaped in the 20th century Taylorist factory.

One example of how labour is shaped and how a platform affords different kinds of tasks and skills, can be found in Postigo's (2016) research on YouTube. Postigo uses affordance theory and critical political economy as an example of meshing both traditions. Most importantly, he

discusses affordances in the context of digital labour. YouTube technologically affords the broadcasting of both amateur and professionally made videos over the internet. It also affords all sorts of other activities, many of which have nothing to do with video sharing, such as commenting, “up-voting”, participating in personal vendettas, etc. Another example could be Facebook. Facebook technologically affords users to communicate, in a variety of media formats (text, videos, emoticons, pictures), across the world. Socially, it affords people the ability to stay in touch with acquaintances, friends, and family, regardless of distance, as long as they have internet access and a Facebook account. And even then, “staying in touch” is a highly inadequate term to describe the wide variety of social activities and affordances available on Facebook. The platform has so many features that it's hard to keep track of them all: forums, event planning, likes, “reactions”, photo albums, classified ads, etc.

Returning to YouTube, Postigo shows how it exists in an ecosystem of complementary social practices and technologies that allow for value to be produced through the act of streaming and recording gameplay. YouTube is made up of a series of systems that allow for this: the video upload, the video commenting system, the video rating system, the favoriting system, the subscription system, and the advertising system. Together, “the creative and the productive processes are melded” (p. 340). All of these systems *afford* the ability to turn gameplay into labour, and for this labour to produce value for the player, but perhaps most importantly, YouTube.

The same can be said about Steam. Steam has all sorts of features and affordances that produce value for Valve. Valve affords shopping and the viewing of advertisements. It affords users the ability to criticize and rate games on the platform through its user reviews systems. It affords users to maintain social networks with friend lists, instant messaging, and group

management pages. It has forums for discussion, and affords mod makers the ability to upload and distribute their mods for free. For game developers and publishers, it affords distribution of their games. Key in all of this is the production of value as captured in audience commodities, network effects, and service fees collected by Valve for every transaction on the platform. Beyond this, Steam also collects user data (much as social media platforms do) and sells it to advertisers. There's a further value-add for Valve in that Steam is a relatively low-cost testing environment for debugging software and the sale of virtual merchandise.

For Postigo, social affordances exist only as a function, a result of technological affordances. Otherwise they would be “untenable as a matter of social reality” (p. 336). Yet there is still social feedback because it is still a dialectical process. Technology is shaped by social actions which then shape technology. There is always some room for agency. Similarly, how one reads its many messages is a product of social and historical forces. While the examples so far have been of contemporary digital technologies, in media and communication studies generally this is a foundational principle. When Walter Benjamin (1936) wrote of the changing relationship between society and representational art forms, it was not about the so-called “essence” of art, but instead of the shift in the means of producing, reproducing, and circulating that art, and the qualitative shift in how society understood and interpreted it.

John Berger (1972) described as a “way of seeing” how those who use technology and describe that technology are situated in a concrete historical moment and bound up in ideology. The language used to describe technology is political. For example, does technology exploit us as labourers, or do we use it at our leisure, because we want to? As a labourer, am I exploited by a ruthless capitalist, or am I a utility-maximizing individual, seizing an opportunity put there for me by a “job creator”? The language here is not eternal or necessarily objective, and as such is an

epistemological problem. As Postigo says, “The technical and social structure of digital labor, then, may not be one of pure exploitation but of selective seeing” (p. 336).

Another way to put it would be that the commodity conceals its true character as the bearer of value, which is the stock definition of Marx’s commodity fetish (Marx, 1990). This explains the disjoint in discourses of work and play, and how platforms can be sites of both, dialectically interacting with the capital accumulation process. Gibson’s (1986) affordance theory provides the analytic to explain the ways in which technology affords this process to happen in concrete ways. Linderoth (2013), showed how it can be practically applied to both games and digital spaces. Shaw (2017) successfully demonstrated that combining affordance theory with Hall’s (1980) encoding/decoding analytic helps describe the relationship between technological affordances and the wider social structures of capitalism. My contribution was to show the distinct contribution affordance theory has to practically describing the specifics of class struggle over the work task as described and theorized by Braverman (1974). Postigo’s (2016) study of YouTube demonstrates this analytic in practice, providing me with a framework for approaching the social and technical affordances of Steam.

Conclusion

In reviewing the work of those theorists I’ve referred to above, I have navigated to a place in game studies, communication and cultural studies that allows me to analytically address the intersection of these varied fields within a platform like Steam. First, I summarized three hegemonic theorists of play and games, Huizinga, Caillois and Suits, in order to show the limits of their concepts and taxonomies. To help illustrate these limits, I turned towards Bojin and Lund, whose work tackles the same question of form and conceptualization, but from materialist perspectives. Of the two, I discussed how Bojin’s is more effective for my research. I then

reviewed a broad sweep of different approaches in game studies, with an eye towards describing work that contextualized digital games within social reality, such as research that foregrounds and critically analyzes the gendered qualities of games. Following this I discussed the development of research on the political economy of the digital games industry, and demonstrated how the growth of this area of study is instrumental to launching my research. Finally, I summarized research on the question of labour, play and hobbyist game modifications, which give rise to the deeper theoretical questions in my own research on Steam. Having placed my research in relation to these currents in game studies, communication studies, and cultural studies, the next step is to establish a theoretical framework that is capable of analyzing all the different aspects of Steam my case studies address.

Chapter 3: The Steam Sale

Every season, like clockwork, there is the Steam Sale, where even recently released games are drastically cut in prices. In its own way, Steam brought what was a common occurrence in mass consumer life – the sales promotion – to digital commerce and gaming. Players once had to rely on the whims of brick-and-mortar retail (with its own seasonal and geographic imperatives) or publishers themselves deciding to unilaterally recommend to retailers to reduce prices. Now, with the Steam Sale (and other, online digital sales promotions), discounts on digital games are commonplace, and maybe most importantly, expected.

The next section is a visual and user-based descriptive analysis of three sales that took place on Steam in 2015-2016. I analyze two specific aspects of these sales: the trading card gamification system and the Discovery Queue, which is deeply tied into the latter. In these discussions, I describe the concept of the “discoverability problem”, which is an ever-present hurdle that sales and the various systems on Steam are constantly mobilizing new forms of digital labour to solve. These solutions manifest as a desire by those who own these platforms to have total control over the production and distribution of play itself, even if they constantly have to negotiate with resistances and gaps in knowledge and execution. In all of this there is a distinct tension between the ways of seeing on this platform: ostensibly, people are shopping for deals so they can play more, but there is a very real form of value-producing labour on the platform, as evidenced by how the Discovery Queue operates.

The sale, however, isn't *just* a reduction of prices. To make a sales promotion work, consumers have to know about it, and they have to be able to find the discounts on offer. This means that the sale is not just a business strategy, but is also a set of distinct practices that have to be implemented through a piece of software. A sales promotion is a method of capitalism, one

of many strategies to increase sales volume and thus make up for smaller margins on individual sales. It has to visually showcase discounted software, and walk them through the process of shopping during a “special” time of the year. The story of the many Steam Sales held over the years is the story of the intersection of capitalism, play, and software. This chapter uses the Steam Sale as a case study to analyze this specific articulation of affordances that enable consumerism and capitalism.

This chapter shows how Steam “works”, in a double sense: Steam works for its owners and game publishers by closing one part of the circulation of capital when the money is exchanged for the finished product. Steam also becomes a place of work for its users. They have, in multiple instances, been prompted during a Steam Sale to participate in game-like activities where the end-goal is to showcase games with steep discounts. For example, in the year before I began my study, a Steam Summer Sale included a game that users could play, and depending on the outcome of that game, the winners could “choose” which game would next go on sale. This takes game-like affordances and tasks and tacks them onto sales promotions. To conduct the analysis in this chapter I’m using data that I collected during Steam sales from the Winter of 2015 to the summer of 2016. I chose these sales because they took place during the data collection phase of my dissertation, and the data consists of screenshots from various pages on Steam. Some of the screenshots use a browser extension that would crawl through an entire website and create an image file, and this mean moving through Steam’s web-based client rather than the full-featured software. The number of screenshots I took was based on hitting theoretical saturation. During the first days of each sale I would take screenshots of every relevant page I could find (discovery queue, library, storefront, sale front pages, etc.). As the days went on, I would keep screenshotting until it I wasn’t discovering anything new. The first sale I took

approximately forty screenshots over ten days. The last sale was so similar to the first that I only took 1. I then returned to these screenshots and took notes and analyzed it line with my theoretical framework.

The reason I chose to write about Steam sales is because I noticed that in my everyday interactions, and in my media consumption habits, a Steam Sale felt like an unavoidable phenomenon, which only compared to two other consumer holidays: Black Friday (late November in the United States) and Boxing Day (the 26th of December in Canada). These two days are of course well known for the deep discounts on consumer goods, especially electronics. Black Friday, particularly, is considered in the popular consciousness as an ode to unobstructed, gratuitous consumption. Yet in my personal experience, I noticed that Steam sales would warrant more casual discussion with my friends than even these sales holidays. This anecdotal experience is what drove me to study how Valve codes Steam as a platform, how they leverage the architecture and affordances it provides to get users to care deeply about a run of the mill sales promotion.

At the same time, I want to stress that I have no way of measuring the actual success of a Steam sale for either Valve or the publishers of these games. Do sales volumes increase enough to justify the lower prices, and the lower cut of each sale that it entails? I just don't know. My guess is that they are successful for Valve, i.e. that they profit when the volume of sales increases and that the only major fixed cost incurred during a sale is likely that of increased bandwidth usage.²² I assume it is also somewhat successful for the publisher. I'm less sure that the game developers are the winners; they are often subservient to the interests of publishers and might

²² It's worth noting that because of Valve's "cabal" style, non-hierarchical management structure, they are unlikely to incur higher labour costs for running events (Valve, 2012a).

have contracts that limit their ability to profit from discounts (Klein, Dyer-Witthof, & de Peuter, 2003).

So even if monetary success is debatable here, the sale *appears* successful by calling attention to itself through the Store tab, as well as by garnering attention in the media. Steam sales are frequently the subject of discussion in the enthusiast press, garnering stories about on popular sites like Kotaku and Polygon (Grayson, 2015c; Sarkar, 2016). This chapter shows the platform in motion, how the platform walks users through the process of learning about the sale and how as a user someone can increase their engagement as a player and a consumer, and how this constitutes an act of digital labour, the surplus of which is captured in the network, and transformed into power and profits for Valve.

To explain this I return to the work of Dallas Smythe, who addresses and answers the question of unwaged audience and user labour. I believe his work on the audience commodity in network television still sets the starting point for understanding the production of value in what appears at first glance to be the opposite of the traditional factory. Smythe's work, explored below, shows Marx's original conception of abstract general labour can be updated to take into account these new forms of affective labour (Fuchs 2010). In the end they are the sources of value that are exploited by capital as it is increasingly faced with a variety of contradictions, struggles and crisis.

Smythe's (1977) intervention was to specifically ask what the economic function of advertiser-supported media is. He proposed that they produced an "audience commodity". He argued that prior Marxist accounts focused all too often on the media and communication industries as ideology machines, suggesting that they were merely a function of the "base" in

Marx's (1977) base and superstructure metaphor. For Smythe, this critique avoids the answers that careful materialist analyses of the communication industry could reveal. He wrote that:

This is the threshold question. The bourgeois idealist view of the reality of the communication commodity is "messages", "information", "images", "meaning", "entertainment", "orientation", "education", and "manipulation". All of these concepts are subjective mental entities and all deal with superficial appearances. Nowhere do the theorists who adopt this worldview deal with the commodity form of mass communications under monopoly capitalism on which exist parasitically a host of sub-markets dealing with cultural industry, e.g. the markets for "news" and "entertainment".
(p. 2)

What follows from this critique is his assertion that broadcast media is, at its core, a realm of unwaged labour. The commodity that broadcasters sell to advertisers is the audience and their attention. Smythe says that the content that broadcasters distribute is akin to the "free lunch in the old-time saloon or cocktail bar" (p. 5). This is not to suggest that the content of broadcasters doesn't itself have a variety of artistic or cultural or propagandistic use values but rather that it is secondary to the transaction. In this way, Smythe reveals how Marx's concept of the commodity fetish functions: the primary appearance of the commodity's use value (messages, entertainment) mystifies the commodity's real value as exchange value (audiences sold to advertisers). The audience's labour time viewing advertisements is sold (Meehan 1993). The audience is then "paid" in media content, which the worker cannot actually use to reproduce themselves, meaning that the labour is unwaged.

In the political economy of communication, and communication studies generally, Smythe's work had a lasting impact on how media has been understood, especially juxtaposed

with other popular theories of communication technologies under capitalism. Broadly speaking, on one side stands the interpretation of media primarily as purveyors of content and ideology, with either the Frankfurt school's psychoanalytic and Marxist (Habermas, 1991; Horkheimer and Adorno, 2007) framework or the media ecology of Marshall McLuhan (1994; 1962). Theories that utilize Smythe's work, on the other hand, place this or that media industry into the wider economy and the production of exchange value. It is the latter with which I align. For example, Vincent Mosco's analysis of the disjoint between the ideology of technological utopianism and the material economic effects is the core of his work both on the early dot-com boom (2005) and his recent work on the realities of cloud computing (2014). Studies of audience labour online (Nixon 2014), intellectual property and rent extraction (Rigi 2014), and the relationship between games and labour (Lund 2014) have all utilized Smythe's typology. In a similar vein, but not necessarily engaged with Smythe's work specifically, Dyer-Witford (1999; 2015) and Dyer-Witford and de Peuter (2009) have contextualized communication and cultural industries with theories of Autonomist Marxism, communisation theory, game studies and Deleuze's (1992) later work.

The basis of the audience commodity produced on Steam I'm discussing is more similar to Smythe's initial formulation: the labour that audiences perform is the viewing of advertisements, the production of data (most often demographic), and the voluntary exchange and sale of virtual commodities and games. All of this is *productive* labour, but still unwaged.²³ What Steam can sell to prospective publishers is an existing user base and the audience that

²³ Productive in that it produces value for capital. This is the most daring part of Smythe's theory. He claims, up front, that based on the analysis Baron and Sweezy give in their landmark *Monopoly Capital* (1966), that "The material reality under monopoly capitalism is that all non-sleeping time of most of the population is work time" (Smythe, 1977. p. 3).

come with it. What these users see is, of course, advertisements, and not just in the Store. To help spread awareness of both seasonal sales and new releases, users are often shown a pop-up when they log into Steam. This pop up has a pre-generated list of games that a user can choose to scroll through when they start the Steam client. This pop-up is just small way to ensure the capture of this labour in the overall architecture of digital labour.

The first sale I look at was the “Steam Winter Sale”, which ran two weeks, roughly reflecting the seasonal break associated with the school year. The second sale was the “Lunar New Year Sale”, which ran for a week in February 2016. Finally, the Steam Summer Sale, which ran for two weeks in late June/July 2016. The core principle of each sale was the same, but each was also different in two ways: one was the theme (Christmas, Lunar New Year, Summer Picnic), and the other was how it guided consumers through the sale. There were two distinct approaches to the sales, showing that there was some experimentation of techniques on display with the sales all seemed to revolve around solving what I call the “discoverability problem”, the problem of putting the right game in front of the right consumer, and getting them to buy it.

Trading Cards and the Discovery Queue

I was particularly determined to interact with the first sale I studied at all levels, and recorded the entire process of what shopping looked and felt like during the Steam Winter Sale. I wanted to be a hard-working shopper, and decided that meant interacting deeply with the systems that were available to me. This meant using the “Discovery Queue”. The Queue describes itself as “personalized”: meaning that it is ostensibly tailored to my tastes in games (through an algorithm), hoping to put more in front of me to buy. The algorithm claims to be based on the kinds of games I have bought in the past through, Steam, but also on the kind of games I *actually* play as well. On top of this, users can add games to their wish lists or “not interested” lists,

which Valve claims future Queues will take into account (Valve Corporation, 2014). During the Winter Sale, the Queue was advertised to users at the bottom of the Store's front page, telling users that they would get three free Steam "trading cards" each day by viewing the entire queue, three separate times. So, there was a distinct incentive (a mild one, to be sure) for somebody with an interest in the trading cards (and the meta-game that they were a part of) to view the queue three times a day. The cards themselves serve a double function as a minor currency among players which can be bartered and sold. The queue consisted of ten games each. Clicking through thirty information laden pages advertising games I had often never heard of, it certainly felt like work. In this way, I would say the Queue gamifies shopping in the slightest way, finding small ways to incentivize its use through the use of game-like affordances.

And then there is the Discovery Queue itself. The Discovery Queue as a feature that is a dedicated technical affordance that *allows* for information-seeking actions. It is also mostly devoid of "social" affordances. It allows for users to specifically browse, without much effort, a series of games to then purchase. The Discovery Queue was described in 2015 as a "mix of products that are new, top-selling, and similar to what you play and use on Steam." In other words, some of the games suggested will be related to your past purchasing habits and stated preferences, and the rest will be put there based on a whole variety of other factors such as metadata associated with your account through keywords and genres. Another would be straight up paid-for advertising based on these keywords.

When the queue starts, the user is brought to the Steam Store page of the suggested game. The user has a few options. The first is to interact with the page as usual, browse videos, read reviews, and add the game to Steam's checkout cart. The other option is to interact with the Queue controls, of which there are four: "add to your wishlist", "follow", "not interested", and

“next in queue” button. Adding the game to the wish list means it will be tracked as a game that the user wants to possibly buy (it will also be visible to friends and others on via the Steam Community page, so they could buy the game for you as a gift). In this way Steam affords users the ability to opt-in to another form of tracking and meta-data production for the chance at a better, more relevant recommendation. In addition, users will also sometimes receive emails notifying them about the game’s price reductions. For instance, if the game goes on sale during Steam’s “Mid-Week Madness” (a weekly sales promotion on the platform), the user will get an email about it. Adding the game to the wishlist seems to be the most impactful choice for a Steam user while using the Queue.

Choosing to “follow” a game means users will receive updates from the game’s developer in the “Steam Activity Feed” (which is similar in many ways to Facebook’s News Feed). This plugs users directly into the public relations of developers, telling them about game updates (patches, for one), expansions, and other games by the developer. Choosing the “not interested” button removes the game permanently from the Discovery Queue. If one doesn’t, the games have the habit of showing up over and over the queue, especially if one waits a few days between queue uses. Finally, a user can just click on the ‘Next in Queue’ button and move through the rest of the games in the Queue, until it finishes. All of these choices produce information that Steam can use and presumably monetize, keeping with Smythe’s general thesis that audiences are producing both themselves, and now information, that is sold to third parties, rendering their leisure *productive*.

Trading Cards

The Discovery Queue is available year-round, but during the 2015 Steam Winter Sale its use was incentivized by tying it to the creation of objects and use of Steam’s community and

inventory management systems by way of digital “trading cards”. This wasn’t a new trading cards had been available on Steam since May, 2013, as trophy-like rewards for achieving certain tasks in the games they bought (O’Hare, 2013). Trading cards, at their most basic level, are a meta-game (a game that exists outside and above the other games played on and through Steam) that is tied into *using* Steam. By using Steam to buy and play games, trading cards are generated (but only if the user satisfies certain conditions, but for their Steam account, but also in the games themselves). The trading cards can also be created by using other trading cards, combining them into new cards or other objects or breaking them down into their constituent parts. The cards can also be bought, sold and traded on the Steam Community Marketplace, where dedicated users of the trading card system can try to turn a profit on rare cards. This is an intended echo of the after-market economies of collectable card games like *Magic: The Gathering*.²⁴ The trading card system is a technical affordance that creates the space for all kinds of social affordances. For example, clicking on a card brings up a list of all friends who have the pieces you need to complete a set, encouraging more social interactions. By putting trading cards on the marketplace, other users of the interface can go looking for them, pay and trade other cards for them.

In other words, Steam affords its users the sociality of marketplaces, not only on Steam itself, but on social media and in the enthusiast press. During the Steam Winter Sale, one of the main purposes of acquiring trading cards was to use them to craft a “North Pole Noir” (the Winter Sale’s theme was premised on a satirical, Christmas themed whodunit noir-inspired

²⁴ *Magic: The Gathering* is a collectible trading card game where some cards in the card pool are more rare than others. To collect cards, players can either buy sets of cards or booster packs, both of which are randomized and unknown to the buyer before they purchase them. In this way, it is similar to older kinds of collectable cards like baseball cards. The more rare the card, the more likely it is to cost more to buy from those who want to sell their rare cards.

digital comic book) badge, which could be attached to the user's profile page. These rewards, too, could then be traded on the community marketplace for a profit (if sufficiently rare enough) if the user wants to.

The general goal was pretty straightforward, but getting the cards was much more complicated. The first way was by using the Queue. With the cards from the Queue, a user could craft a badge, which comes with rewards (some of which might be more cards).²⁵ They could buy them on the marketplace, trade for them on the marketplace (with other alienable items in the inventory, such as items in *Team Fortress 2* or weapon skins in *CS:GO*), or, explore the Discovery Queue, and get rewarded with a new card up to three times a day for the duration of the sale.

At the core of the trading card gimmick is that it is a meta-gamification of shopping and consumerism. The labour that creates these cards is minimal, but still very tangible. Individual users clicking through advertisements for individual games is a value-add that Valve would advertise to those who put their own games on sale on Steam. Because the entire system is digital, Valve would also be able to offer specific, highly detailed and granular metrics to quantify the effectiveness of these techniques. Taken together, the Discovery Queue and the trading card system work dialectically as affordances. The Discovery Queue technologically affords the creation of trading cards, which then get used or added to the marketplace. The social activity of the marketplace then reinforces the technical activity of the Queue (people will return to it to create more cards).

²⁵ The "crafting" system embedded in the User inventory system goes back to the affordances that were created for Valve's *Team Fortress 2*. Certain games will create items that are compatible with Steam's inventory system, allowing them to be manipulated and viewed outside of the game itself. This system of inventory management is both broad (lots of games utilize it) and deep (it is highly complex). What I discuss here is only a glimpse into how it works.

The Lunar New Year Sale

During the Steam Winter Sale only a month before, the Discovery Queue played an important role, but beyond the trading cards incentive structure, it was an unremarkable sales promotion. During the Lunar New Year Sale, however, the presentation of the sale was considerably different and much more “flashy”. Just compare the front page of the Steam Store between both sales: the Winter Sale only highlights at the top of the page the digital comic “North Pole Noir”, relegating it to about a quarter of the page. In stark contrast to the Lunar New Year Sale, the store is brightly illustrated in red and yellow, gilded by lush drawings of lamps and fireworks. Prominently featured throughout the sale is a monkey, in celebration of the upcoming year of the Monkey in the Chinese Lunar Calendar.

Beyond the Chinese aesthetics, is also the theme of travelling home for the holidays. Travel, and the adventure and perils that comes with it, fit neatly into the core mechanic that sets the Lunar New Year Sale apart from the other sales I looked at. By doubling down on the idea of travel, the sale introduces a new way to have users work their way through advertisements.

On the front page, below the initial art, is a small block of games on sale, but if a user continues to scroll down, they saw a new frame, unique to the sale. It said:

It is Lunar New Year once again, a time to travel home and reunite with family. You are far away from your home town of Monkey City, and many obstacles and choices lie on the path ahead. Are you ready to start your journey home? You’ll see lots of great games along the way — add interesting games to your wishlist as you travel, and view them all when you finish your journey!

Below that is an image of the Monkey looking out at what’s ahead on his journey. “Your first obstacle is a massive body of water. Do you swim across, or hitch a ride and drive the long way

around?” Two buttons sit below this, one says “Swim”, and the other says “Drive”.

I chose “drive”, which brought me to an image of the Monkey getting driven around in a sports car. Below it, it says “Driving Games!”, with a list of games on sale. There are 23 of them. After viewing all 23 games, there is another prompt and illustration: “You arrive at the edge of a busy port city where an epic battle is playing out on the beach. Pirates against Ninjas, a conflict older than time itself! Which side do you jump on?” I chose pirates, and the next page displayed 18 pirate-themed games, with more choices to continue my journey home at the bottom. “Card games, or fighting?”, it asks me. I choose fighting games, and on I go. At its most basic level, what the Lunar New Year Sale is, is a “choose your own adventure” book deployed in the service of solving the discoverability problem.

I got to pick these genres: dinosaurs, dragons, flight, funny, stealth, driving, horror, and mystery. Each list was between 14 and 24 games long, coming to a total of 238 games viewed. Compared to the 30 or so games a day that might have viewed through the Discovery Queue, this ramped up the quantity considerably. Quantity over quality seems to be what sets this Lunar New Year Sale apart from the Discovery Queue. The Discovery Queue brings each user to the game’s individual store page. Another difference here is that there is not an incentive structure in place, but merely the promise of an adventure, some fun illustrations, and a unique way to shop based on entirely on genre. This particular form of guiding users through games has yet to be replicated in any other sale. During this year's Lunar New Year (January 2017), there has been no sale.

The Lunar New Year Sale was a series of technical affordances that provided information-seeking actions for the user, while affording the kinds of actions that produce value and network effects for Valve. But what the Lunar New Year sale also showed that Valve was

willing to try out new methods with their sales. It was distinctly unique among the three, and likely wasn't as effective as the Discovery Queue traditionally was, and remains an outlier.

Steam Summer Picnic Sale

This sale, running for two weeks between June and July 2016 and was similar in form and content to the Winter Sale, except it that was considerably less well produced. The Winter Sale had a comic book that was released, one page at a time, over the course of the sale, while the Summer Picnic Sale was had no such amenity. It was simple.

The front page of the Steam Store is presented much as it is in others, with an animation running on loop on the Store's front page. Games on sale are arranged vertically and horizontally. The Winter Sale's trading card promotion is intact here: going through the Discovery Queue users can create up to 3 trading cards a day. In sum, it is a normal, unremarkable sale on Steam, and illustrated a continuity of methods between sales. It affords the same things as the Winter Sale: a dialectical relationship between the Discovery Queue and the Community Marketplace. What the Summer Picnic sale showed was that there was a pattern to the production of these sales promotions on Steam. There would be a general scaffolding on which future sales would build on, while the theming and technique was refined.

Three Productive Sales Promotions

The details of these three sales help to illustrate what is at the heart of the socio-technical dimension of the platform. I wanted to know how the platform shapes and creates work, and in the case of an online sales promotion, encouraged the viewing of advertisements by funneling users into a what might be cheekily described as a "carousel of deals". In the above three sales, the primary way of encouraging this was by incentivizing the use of the Discovery Queue, and in the one-shot use of a choose-your-own-adventure-genre presentation.

During these sales, the primary goal of Valve for Steam users is to have them view as many discounted games as possible, in the hopes that they will buy them. This isn't surprising, but I think the technique used is distinct and interesting for the problems faced by a digital storefront. Thinking spatially and imagine a physical store sales promotion as a contrast to the Steam Sale. A store putting their merchandise on sale has quite a few tools on hand to direct consumers to the appropriate items. They might place them at the front, to be seen when one walks inside. They might have a special section of the store dedicated to the sale like a sales rack. Or they might just place signs around the store in front of items on sale. But the spatial element of shopping through a digital platform places strict limits on these strategies: a screen is not a building with hundreds of square feet in shopping space, where a human body navigates it physically. Digitally, the screen is all that a user sees, and how they navigate it is fundamentally different. How to get people to see what is on sale is obviously the problem to be solved here, and Steam's preferred technique is deliberately "playful" and "game-like". They want to afford users an interesting and fun way to engage in information-seeking actions. So, the solution has been to put consumers into a carousel, and run games in front of them, rather than wait for a user to scroll through thousands of games on their own.

This "directing" of users to games is a key part of why this is a question of mediating work and play. A user can, and often would, proactively look for games they want to buy, but the value proposition for developers and publishers interested in the platform isn't that active consumers will find their games, but that *new* people will become customers. The expansion of a customer base is key to any capitalist enterprise.

What is at the core of the "discoverability problem" is the creation of new customers in an environment with too many commodities for the individual to peruse on their own.

Information-seeking actions yield information to the user that is useful. To create new customers, they must be set in motion as workers working to discover the commodities that are lying in wait for them. They might not find them. Maybe running too many in front of them puts a consumer into overload (the 238 games put in front of me during the Lunar New Year Sale felt like too much). There is likely a sweet spot where maybe thirty as presented through the Discovery Queue is more realistic. Without a doubt, there are metrics collected to try and find an answer to these questions. The platform must afford users *effective* information-seeking actions.

At the meta-level, Steam encourages consumption and shopping at every opportunity and little else. It affords the ability to playfully interact with the sale as well, through the trading cards (creating special items out of them, etc.). One can ask to not see a specific game shown to them anymore through the Discovery Queue, but even that doesn't guarantee that they won't see it anymore. These technical affordances create social affordances through the Steam Community Marketplace (more on this feature later) premised on barter, trade, and arbitrage.

The platform's constraints arise from its design as well. The most impactful ways to interact with a sale seem to be the buttons in the Discovery Queue. If one, say, wanted to express discontent with a game, the only option is to talk about it through the review system, which is constructed as a kind of "consumer reports" for other users. It's hard to imagine any kind of "culture jamming" through Steam, in a way that one could disrupt the normal functioning of a brick-and-mortar store. The Steam Store sets one up purely as a consumer, hardly letting one escape the designation.

This begs the question: how does one use Steam in an oppositional way? Do I use the Queue and choose to follow games that I don't want to buy, giving the platform bad metadata? It's unlikely that Valve would care much about that. Does one have to hack Steam, and steal data

and accounts from users to be considered truly oppositional? What about in the Community tab, where there are forums and game reviews? Writing negative things about the games on Steam or Valve doesn't seem to be bad for the platform, however. Like most things today, they incorporate criticism and negative feedback into their metadata. Yet there are other oppositional ways to use the Steam interface. For example, using certain features to cloak piracy of games ((Montegriffo, 2017). If anything, as I later discuss, I feel like Valve is more likely to be considered to use their platform in "oppositional" ways according to the discourse of the communities that use them, rather than the other way around. The discourse of behaving badly, of using technology in the "wrong" way was directed at Valve when they attempted to dispossess the videogame modding community of their hobby.

What matters most is how Steam is designed to set players/consumers/users, in motion — to guide them through the digital space to discover games, to be player-worker-consumers at the same time. It's a double-sided process. On one side, they produce one kind of commodity through their viewing of advertisements for games, an audience commodity (a commodified audience) of the kind Dallas Smythe discusses. They also realize value in the production process for the manufacturer of digital games *and* at the same time pay a rental fee to Valve for the use of the Steam store with the transaction fees that Valve receives for every sale. This reflects, as Shaw (2017) notes, that production and consumption are intricately tied up in the affordances of new-media like digital games, and as I have demonstrated here, the platforms that digital games are distributed through. In this way, Steam is always-already mediating the digital labour and digital play. It affords both, and profits from both. In the next chapter I address other acts of production, mod making, that are deeply tied into consumption, and how they are still undergoing "dispossession" at the hands of capital.

Chapter 4: The Discourse of Digital Dispossession

On April 23, 2015, the digital game developer and production company, Valve Corporation, announced through their digital distribution platform Steam the introduction of buying and selling of “mods, maps, and all kinds of items that you’ve created.” They continued, saying that “with a new, streamlined process for listing and selling your creations, the Steam Workshop now supports buying mods directly from the Workshop, to be immediately usable in game.” (Valve Corporation, 2015) Valve would begin with a partnership with Bethesda using *Skyrim* (2011), an open-world, single player role-playing game (RPG) as the pilot project. Four years after its release, *Skyrim* was still a popular game, with a thriving community of modders. It, and other games developed and published by Bethesda Game Studios, are a good example of the kind of digital games that support such communities. Bethesda often releases software packages (called Software Development Kits, or SDKs) that allow users to create content for their games, such as outfits, weapons, new enemies, quest lines, user interface upgrades, customizations, maps and territories: in other words, mods. In practice, this means that new content is developed for these games for many years, even after the publisher has since moved on from supporting it directly with updates and paid content expansions. Maybe most importantly, even though mods up to this point never made money directly for the modders or the game developers and publishers, they were intensely valuable. As Postigo (2007) has argued, they added value by fitting into the same categories as marketing and brand awareness.

Four years after its publication, Valve and Bethesda had decided to capitalize on the existence of this long-term, highly committed community dedicated to *Skyrim*: “With the launch of paid mods in *Skyrim*, you can now support mod authors that are creating top quality items and amazing new experiences for your game” (Valve Corporation, 2015). All mods were suddenly,

and immediately, eligible to be sold by their authors (and as I will discuss later, others as well). Modders received 25% of the final sale, Valve took 30%, and Bethesda took 45% (Wawro, 2015).

Several days after the announcement, the cheery tone with which the paid mods program was introduced was overshadowed by backlash from various quarters of the internet. Twitter, Steam's official forums, mod databases like Nexusmods, and reddit had been flooded with complaints (Grayson, 2015a). To manage some of the fallout, co-founder and CEO of Valve, Gabe Newell, had created a thread on reddit, asking the community what went wrong (Newell, 2015). By April 27, only four days after the program's launch, Valve announced the immediate end (for the time being) of paid mods, promising refunds for any purchases made so far. They continued, saying "We've done this because it's clear we didn't understand exactly what we were doing. We've been shipping many features over the years aimed at allowing community creators to receive a share of the rewards, and in the past, they've been received well. It's obvious now that this case is different" (Kroll, 2015). Apparently, Valve had moved too fast, and angered a lot of people in the process, and it begs the question: why? This chapter shows that what took place was a small moment of "dispossession", something that digital and ludic economists should be studying in more detail.

This chapter is positioned as a case study that stresses the political-economic origins of conflicts inside both the game and cultural industries. Some have suggested that the coming century will be defined by games, with games playing a larger role in society and business. As Zimmerman and Chaplin (2013) wrote: "As more people play more deeply in the Ludic Century, the lines will become increasingly blurred between game players and game designers." My argument, contra this, is that it's more likely that the 21st century will be defined by the

increasingly acute sense of loss when it comes to games. They will indeed be everywhere, and more people will be encouraged to use systems thinking and design in their work. But the habits and spaces that once marked them as (slightly) distinct activities from our work lives will quickly disappear if the trends outlined in this chapter continue. The “discourse of digital dispossession” will be omnipresent as social life and hobbies are fully commodified.²⁶ Much as the peasants of the old world were “freed” from their bonds to the land, and forced to move to the cities to give rise to the working proletariat, so too people will be freed from the “choice” of playing games. Instead, work will be as much a game as anything else, and thinking like a designer a sad necessity, rather than a playful pursuit.

Central to this particular process of dispossession is the platform Steam itself. Steam, which provides a wide variety of services (including a mod database, cloud-based game library, in-game marketplaces for goods, community pages, instant messaging and VoIP, and more) makes the process possible. Without Valve's singular governance of Steam's tools, commodifying modifications for *Skyrim* would not have been possible in this way, and structurally would have been much more diffuse and drawn out i.e. it would have required the creation of brand new proprietary software and distribution platforms. It's important to note that the processes described here could also apply to other cultural products associated with “prosumption” such as music, film, and writing (Jenkins, 2008; Kücklich, 2005; McLuhan & Nevitt, 1972; Postigo, 2016; Toffler, 1984 Xie, Bagozzi, & Troye, 2008).

²⁶ One such example might be pilot projects currently underway in China, as laid out in a recent five year plan in 2014. It set down a framework to create credit scores for every citizen in the next 20 years, and tie them to more than just credit cards and bill payments (Gracie, 2015). That being said, I think that social credit systems currently being discussed in China reflect credit systems that are well established in the advanced capitalist economies, and that the digitalization of an assortment of activities and tying them to credit isn't necessarily dispossession, but certainly a deepening of the quantification of everyday life.

A central theme in this chapter is that many of the explanations that have been proffered over the last five decades to describe media production, the qualitative changes in the organization of work, and the importance of digital technologies are insufficient. Literature in the political economy of communication has relied on theories that purported to “update” classical Marxist political economy, such as Daniel Bell's (1965; 1976) theories of post-ideological, post-industrial societies, Manuel Castells' (2009) network society, and others. These theories have, in many ways, offered interesting insights, but have also suggested that there has been a qualitative change in the mode of production. This paper contributes to a growing body of literature that suggests that capitalism works in the same general dynamic as was theorized in the 19th century by Karl Marx, even if the technologies and techniques have changed with the times (Caffentzis, 2013; Dibbell, 2009; Dyer-Witheford & de Peuter, 2009; Harvey, 2006; Mosco, 2009; Moulier-Boutang, 2012; Nixon, 2014; Rigi, 2014; Ross, 2010; Terranova, 2003). Marxist political economy has the tools and analytical capacity to explain and understand current dynamics of the digital world. One of the most important things about historical materialism is that it is a method, not a dogma. It is only as useful as long as the concepts it has created can describe the world accurately.

Historical materialism is particularly amenable as the case study method demonstrated in this chapter. A case study approach is a form of longitudinal research that is methodologically distinct from other kinds of time-based research methods, be they qualitative or quantitative (such as cohort or panel studies). Neuman and Robson (2015) describe case studies as objects where “a researcher, examines, in depth, many features of a few cases over a duration of time with very detailed, varied, and extensive data, often in qualitative form” (p. 18). First one sets the context, and then spends a large quantity of time looking deeply in the subject of one’s case.

Contextually, this chapter starts with conceptual descriptions of both the “commodity fetish” and the concept of “accumulation by dispossession”. This framework is based around three moment of media encoding, two of which I look at here: the relations of production that Steam fits into, historically, and the discourses of knowledge that make up the subject of my discourse analysis.

I use critical discourse analysis (CDA) as one part of this multifaceted methodology to piece together a wide variety of utterances and themes, and then come up with two “big D” discourses, based on data that I collected on reddit, one of the internet’s most popular forums. These discourses aren't necessarily truth statements about reality or of actually existing material relationships (although they can be). Instead, they are articulations of words and what Gee (2005; 2014) calls “little d” discourses. This reflects Stuart Hall's (1980) theory of encoding and decoding which describes how discourses are produced in specific economic, discursive, and technological conditions. In other words, as Marianne Jørgensen & Louise Phillips (2002) in their summary of CDA write, “... discourse is a form of social practice which both constitutes the social world and is constituted by other social practices. As a social practice, discourse is in a dialectical relationship with other social dimensions.” This means that the discourses that arise as speech acts, presentations, rhetoric’s, etc. are deeply tied to the material conditions of other parts of society, especially the economic. They reflect and reinforce, as well as change, each other.

The Commodity Fetish

The commodity fetish is the central contradiction upon which Karl Marx (1867) built his critique of political economy. Marx argues that while commodities, on the surface, appear to be designed and sold according to their use value, the value at which they are sold (called “exchange value”) is what determines their worth: “It is conditioned by the physical properties of the commodity, and has no existence apart from the latter... This property of a commodity is

independent of the amount of labour required to appropriate its useful qualities” (p. 126). Going even further, useful objects have no need to have exchange values at all: “A thing can be a use-value without being a value... A thing can be useful, and a product of human labour, without being a commodity. He who satisfies his own need with the product of his own labour admittedly creates use-values, but not commodities. In order to produce the latter, he must not only produce use-values, but use-values for others, social use-values” (p. 131). Marx’s insight, following this, is that it is “social use values”, or in other words, the labour which was required to create it, that is an ever-present element of every commodity’s price: “This relation changes constantly with time and place. Hence exchange-value appears to be something accidental and purely relative, and consequently, an intrinsic value...” (p. 126). Each commodity could be very useful, or barely useful, but in the end it *must* be useful to someone: “If a thing is useless, so is the labour contained in it; the labour does not count as labour, and therefore creates no value” (p. 131). When it comes time to sell the commodity, it is the quantity of labour put into its production that determines the value imparted into it. This is because there needs to be a *third* substance that measures value between two commodities. Marx’s example is 20 yards of linen = 1 coat (p. 140). If both the tailor and the weaver wanted to find a way to objectively measure the value of what they have brought to market it is the *socially necessary labour time that each took to make*, compared in the abstract, that can come to an objective measure. It is by comparing all sorts of commodities in a general, abstract way, that sellers can begin to measure and understand how their commodities will sell on the marketplace.

The commodity fetish, is also, most importantly, a critique of liberal conceptions of freedom. David Harvey (2010), explains that:

The freedom of the market is not freedom at all. It is a fetishistic illusion. Under capitalism, individuals surrender to the discipline of abstract forces (such as the hidden hand of the market made much of by Adam Smith) that effectively govern their relations and choices. I can make something beautiful and take it to market, but if I don't manage to exchange it then it has no value. Furthermore, I won't have enough money to buy commodities to live. (p. 42)

The commodity fetish, then, is just a way of articulating that the use values of commodities are always at odds with their exchange values. The commodity fetish is the starting point for how social relations between people are reduced to economic relations.

Enclosure, Primitive Accumulation & Accumulation by Dispossession

In the early 17th century, the English aristocracy, in conjunction with the newly powerful bourgeoisie, embarked on a campaign of enclosures, primarily with the goal of dispossessing the commons from the existing peasantry. In the process, they would turn this land, once farmed under feudal property arrangements with set amounts taxed by the local lords, into pastures for sheep and the production of wool (Polanyi, 2001; Marx, 1990). This dispossession was called “enclosure”. This process was particularly important for jump-starting the industrial revolution, as the newly privatized commons produced the wool central to the textile industry, with a side effect of also producing a large quantity of landless, dispossessed peasants moving to cities. These dispossessed became the basis for the new proletarian wage-earning class. Marx (1867) called this “primitive accumulation”, the kind of original expropriation of land and labour on which capitalism is built. Quite often this wasn't a peaceful process, as Marx notes: “the history of this, their expropriation, is written in the annals of mankind in letters of blood and fire” (p. 875).

This process was later reproduced and re-articulated around the world as capitalism grew globally, the substance of which was debated heavily by Marxist theorists in the 20th century (Harvey, 2004, 2006, 2010; Lefebvre, 1992; Lenin, 2005; Luxemburg, 2003). One of the big disagreements between Lenin and Luxemburg was if original accumulation would eventually end (Luxemburg's argument). Either way, both agreed that the growing contradictions of capitalism would lead to more imperialism and wars to decide who would control existing pools and labour and resources. Harvey (2004) argues that imperialism is still a constant feature of contemporary capitalism, but makes the case that dispossession (in more or less blatant forms of robbery) of all sorts of activities and spaces is still going on, so he calls this "accumulation by dispossession".²⁷ Most importantly, it is made up of a variety of processes: Harvey argues that these:

include the commodification and privatization of land and the forceful expulsion of peasant populations; conversion of various forms of rights — common, collective, state, etc. — into exclusive private property rights; suppression of rights to the commons; commodification of labour power and the suppression of alternative, indigenous, forms of production and consumption; colonial, neo-colonial and imperial processes of appropriation of assets, including natural resources; monetization of exchange and taxation, particularly of land; slave trade; and usury, of the national debt and ultimately the credit system (p. 74)

Building on this work, Daniel Greene and I (2014) wrote at length about what we call a "digital spatial fix" for capital, that is, capital's ability to spatially and temporally avoid crisis by moving into digital space and time. As I summarized earlier, our argument is that digital space is still material space, a space where real labour takes place, where real commodities are produced, and

²⁷ To truly understand the process at play here one must see the contradiction of production

where dispossession takes place (Moulier-Boutang 2012; Meehan 1993; Terranova 2003; Fuchs 2012; Caffentzis 2013; Ross 2010).

What one sees in the debate about paid mods on Steam is that it is an example of accumulation by dispossession. Steam built a digital space where new forms of creativity and wealth were created. The use values created in these spaces were already partially commodified as unpaid, unforced forms of labour, which produced audience commodities, and data which could be sold to advertisers and other customers. Both Postigo' (2003) and Kücklich's (2005) arguments are very much in this vein, making the case that unpaid, uncoerced modding is labour, and that it still produces concrete exchange values for capitalists while providing use values for users. Modding even was profitable for some modders, as they often had Patreon and Paypal donation pages set up on their profile pages on NexusMods.²⁸ These people were momentarily “dispossessed” of this, by the paid mods program. Social production that had previously existed through custom and community became subject to the same dictates and laws as the marketplace. In just this example alone there are examples of: 1) conversion of various forms of rights — common, collective, state, etc. — into exclusive private property rights; 2) suppression of rights to the commons; 3) commodification of labour power and the suppression of alternative, indigenous, forms of production; 4) appropriation of assets; 5) monetization of exchange and taxation; 6) and usury. It turned labour that was previously performed mostly as a hobby into something shaped by the marketplace. Making mods, after all, wasn't something users had to do. Instead it was an opt-in form of labour, one that came with an extensive EULA, no rights, and

²⁸ Patreon and Paypal both offer modders legal ways of asking for money to help them develop their mods, Instead of charging for the mod, they often ask that fans of their mod “tip” them for their ongoing contribution to the overall community.

now a confusing intellectual property regime. That is the key to the power of commodification: it appears first as a choice – a kind of freedom, while in actuality it is anything but a choice.

The Rise of Digital Distribution, Game Mods, and Steam

Before going into more detail, however, about the specifics of the paid mods debate, some more background on modding and Steam is important. The relations of production in which the commodification of mods on Steam arose are caught up in a variety of forces and economic trends. In this section, I discuss the creation of modification as a hobby, the rise of what Nieborg (2015) calls the “many-to-few” digital distribution business model, and the specific history of Steam as a platform. This is to provide the political economic context that digital dispossession is now taking place in.

Mods are user-created, customized content for a digital game. While homebrew cartridges and other hacks have likely existed as long as digital games themselves, the discourse of “modding” as distinct practice starts begins to gain traction around the mod “Castle Smurfenstein”, a modification for the game *Castle Wolfenstein* (1981). One of the most popular games to mod was *Doom* (1993) (and with the release of *Doom*’s source code, in 1997), which allowed players to create their own levels, and have others download their mods over the internet (Kücklich, 2005). id Software, realizing an opportunity was at hand in the guise of a hobby, began to support modding explicitly when they released *Doom*’s source code and began to release level-editors with their follow-up games, *Quake* (1996) and *Quake II* (1997) (Kücklich, 2005). After this, modding became more commonplace.

Some of the most successful mods, however, were associated with Valve’s *Half Life* (1998). One of the first was *Team Fortress* (1996), which was originally a mod for id Software’s *Quake*. The team that made *Team Fortress* was hired, the intellectual property bought, and the

development team — TF Software Pty. Ltd — hired on as employees to develop *Team Fortress Classic* as a *Half-Life* mod. In 1999 Mihn Li and Jess Cliff released *Counter-Strike*, a modification for *Half-Life*. The game, one of the first competitive tactical first-person-shooters (now a commonplace genre), was a breakout hit for Li and Cliff, and resulted in their getting hired by Valve after they sold *Counter-Strike*'s intellectual property rights to Valve (Kücklich, 2005; Vargas, 2005). Both *Counter-Strike* and *Team Fortress* have gone on to have very successful sequels. This is in fact a common strategy for Valve, who have also hired the developers of games like *Narbacular Drop* (2005), and mods like *Defence of the Ancients* (2003) (a popular *Warcraft III* (2002) mod). The former's team went on to develop *Portal* (2007), the later went on to create *Dota 2* (2013). Valve has built a sizable share of their business on the backs of hobbyist and semi-professional mod production. Since then, modding has had a significant role in how people consume, and by extension, how games are created (Postigo, 2003; Kücklich, 2005; Nieborg & van der Graaf, 2008). There's also a significant portion of hiring inside the game industry that is directly tied to mod-making, as mods are considered important pieces of a portfolio for aspiring game designers (Deuze, Martin, & Allen, 2007).

The most important aspect of modding to know is that when a developer releases an SDK (software development kit) for people to use to develop mods, they include an end-user licence agreement (EULA). This EULA, almost without exception, has included a clause that forbids the modder from profiting by selling the mod. For example, in 2005, Valve's EULA stated:

Valve hereby grants Licensee a nonexclusive, royalty-free, terminable, worldwide, non-transferable license to:

- (a) use, reproduce and modify the SDK in source code form, solely to develop a Mod;
- and

(b) reproduce, distribute and license the Mod in object code form, solely to licensed end users of Half-Life, without charge. (Kücklich, 2005)

In 2017, Steam's EULA emphasises that Valve has the right to profit off of the work of modders.

When users upload content to the Steam Community Workshop:

...you grant Valve and its affiliates the worldwide, non-exclusive, right to use, reproduce, modify, create derivative works from, distribute, transmit, transcode, translate, broadcast, and otherwise communicate, and publicly display and publicly perform, your User Generated Content, and derivative works of your User Generated Content, for the purpose of the operation, distribution and promotion of the Steam service, Steam games or other Steam offerings. (Valve, 2017b).

Similarly, Valve continues to offer SDKs, but still stipulates that "... you may use, reproduce, publish, perform, display and distribute any content you create using the Developer Tools, however you wish, but solely on a non-commercial basis" (Valve Corporation, 2017). Not being allowed to charge for the mod meant that as far as being able to build a career off of modding practices exclusively, modders were out of luck. While many could use mods as something to point to in a portfolio of prior work when they were looking for jobs, or as an easy way to work on their skills, modders in the 1990s and 2000s were not making money from this hobby (Nieborg & van der Graaf, 2008). If a modder wanted to make money by developing a mod, they had to enter into a formal business relationship with the owner of the proprietary game engine. Yet the rates for licensing this engine were steep, and hobbyists were unlikely to ever have the

means to enter into this kind of relationship. Modding, as a practice that “anybody” with access to the SDK and a PC could do, remained “uncommodified”, in a formal sense.

This relationship would change with the rise of the very distribution platforms that were created to enable modding: online app stores and platforms like Steam. David Nieborg’s (2015) work on the rise of “freemium” games, primarily sold through distribution platforms like the iTunes store, is an important account of the transition to software marketplaces dominated by the hegemony of digital distribution platforms. He elaborates that a “handful of superstars camouflage the inherent power asymmetries and the strong winner-take-all dynamic constituting the political economy of the information economy” (p. 228). In other words, the shift to online consumption did not shift for very long the power dynamic towards small creators or consumers. The biggest change that Nieborg notes with the rise of digital distribution is the change among producers (developers), publishers, and distributors. It has been re-arranged in favour of new organizations who hold a privileged position in the chain of production: platform owners.

This is because developers are tied to the owners of the platforms both economically and technologically. The market shares that these stores command mean that any developers who eschew them would suffer not only from the lack of availability on their respective platforms, but from the lack of visibility and discoverability that the stores provide. Thus, while there are lots of people creating digital games and apps for these stores, they still must go through these few stores, which hold a formal monopoly on their platforms. Many (developers) to few (platforms/stores) (Nieborg, 2015). I would argue that this applies, in a similar way, to the PC market where Steam holds its monopoly. The barrier to entry is lower for game developers than it has ever been. But the Many-to-few business model relies on a series of protected, privately owned and operated distribution networks that serve to either bury, or, if one has enough capital,

prominently display, digital games. The few platforms still hold most of the cards, and the many developers have to play by their rules. All of this is an excellent example of what Gillespie (2010) calls the “edges” of the politics of platforms. The term “platform” itself does a considerable amount of discursive work for those who run and own them. In the discourses that arise when framing their own platforms, corporations like Valve will emphasise the “democratic” and value-creating benefits of these environments and technologies, but will always downplay the networks effects over which they have a unique and powerful control. Platforms, in so many ways, fail to meet the basic standards of what many would describe as democracy.

Steam

Following its announcement at the Game Developers Conference in 2002 (GDC), Steam was first introduced as a way to quickly deliver game updates to players of Valve’s various online games, like *Team Fortress* or *Counter-Strike* (Sayer, 2016). In so doing, this meant Valve could better maintain their online gaming products. A big challenge for many players of these games was making sure one had the most recent patch (update) of the game that matched the host server’s version of the game. If a player didn’t have the right patch, they would be either unable to connect to the server or the game would crash. Delivering patches directly to players as soon as they connected to the internet solved this problem

In 2004, Valve announced that all of their future games would require Steam in order to run (Sayer, 2016). This meant that users would be able to pay for and download their games entirely through the Steam Store, but it also meant that if you bought a boxed copy of, say, Valve’s very anticipated first-person-shooter (FPS) *Half-Life 2* (2004), you would have to install Steam, update to the most recent version, and check the authenticity of the installation (ensuring that the copy wasn’t pirated). In this way, Steam showed itself to be a tool capitalizing on the

useful elements of the digital quality of the commodity (distributing it via the internet). It also attempted to rectify the digital format's vulnerability to digital piracy by creating a rigorous system of digital rights management (DRM).

By 2005 (following the rocky release of *Half-Life 2* in 2004), Steam signed its first third-party distribution agreements, turning it from a proprietary platform just for Valve, into a service for other game developers (Sayer, 2016; Stanton, 2012). From this point, Steam's game library began to grow significantly. Since the shift towards selling third-party games, Steam has developed as a platform. It underwent a significant redesign in 2010, foregrounding it more as a store than as a digital game library. It launched the Steam Workshop (a space for modders to upload their mods), Community tab (a space for forums and group management), and Community Marketplace (where in-game commodities could be traded and sold for money). It introduced Steam Greenlight, a crowdsourced service to which small, independent game designers could submit their games, in the eventual hope of getting approval by the community to officially sell the game on Steam (Makuch, 2012; Sayer, 2016; Stanton, 2012).

Steam, as a store, and most importantly, as a platform, is now considerably more developed. Consumerism has become fully integrated into digital space, and as a result, the monopolies once rigorously structured around physical spaces have moved partially online. Likewise, certain elements once associated with democratic, public space have also migrated online where protections, once guaranteed in physical space, fall under the domain and power of platform holders. Platform holders, even if they don't want to be, are now administrators of all kinds of speech, wage labour, and politics, in a space considerably less regulated than previous telecommunications industries. This follows trends that, for example, were outlined by Jeremy

Rifkin (2001), where nearly every aspect of life is commodified, which itself follows Smythe's (1977) argument that nearly all of waking life is spent productively labouring just be *existing*.

Gabe Newell's reddit thread

In this section I discuss two major discourses (The Discourse of the Community and the Discourse of the Consumer) that reveal how Steam was understood by various stakeholders during the paid mods crisis. How did users, modders, and the CEO of Valve, Gabe Newell articulate their interests, concerns, and antagonisms? Each contributes to these two discourses in their own way. I sampled the kinds of discourse that stakeholders mobilized to criticize Gabe Newell, CEO and part owner of Valve Corporation, when he posted to reddit's r/gaming subreddit asking for clarification about the community backlash (Newell, 2015). Over 18,000 comments were posted in reply. Here, on one of the internet's most highly trafficked sites, the millionaire CEO of a beloved video game company was regularly called greedy and stupid. As one commenter noted, in response to Gabe Newell suggesting that the money they have spent on damage control in answering e-mails numbers into the millions: "Come back in 6 months to a year and say that you're losing this much money... Sorry but you guys are being super greedy and it's extremely obvious" (reddit, 2015).

I used this reddit thread as a distinct place to collect and reflect on the most commonly used phrases, arguments, and concerns about turning mods into discrete commodities.²⁹ In the case of this thread started by Newell, it is particularly interesting that his comments were heavily downvoted, to the point where beyond the first post, none of his posts were visible. Instead I

²⁹ I focused on analyzing 250 distinct comments in this thread. These comments were the top 250 voted / ranked comments in direct reply to Gabe Newell's comments. This adds to the particularly interesting methodological point of using a forum like reddit as a data collection point. On reddit the visibility of comments is correlated to one mechanic: "upvotes" and "downvotes", which create a rating. If there are 2 downvotes, and 3 upvotes, the rating will be 1. The rating then influences how visible each post is. The highest rated will always be visible immediately, while the lowest will have to be deliberately "expanded" with additional clicks to read.

found very early on a link to a version of the thread that artificially highlighted Newell comments alongside the highest rated responses to his comments (Newell, 2015). This was the thread that I coded, as I was particularly interested in analyzing the discourse that navigated the line between the pure mechanics of the forum and the actual conversation that community members were attempting to have with Newell.³⁰ Through an iterative process, I narrowed the focus to four core themes: commodification, community, property, greed, and market failure. These four didn't only appear regularly as themes, but also orbited each other – often one's theme would overlap with another. Out of these I constructed two major patterns of discourse the “Discourse of the Consumer” and the “Discourse of the Community”. Both of these distinct discourses have overlapping concerns, but both articulate a distinct discourse about relating to the paid mods debate.

The Discourse of the Consumer speaks to, and about, the subject position of being a consumer of modifications. It is mobilized not only by consumers, but also by those who describe themselves as mod developers when talking about their audience. It foregrounds the possibility of the Steam marketplace becoming flooded with indistinguishable, voluminous mods of dubious value. It is interested in the “openness” of the mod community as a source of value for good mods, and it assumes a baseline of freedom to consume, at-will, with full control over any mod at any time free of charge.

The Discourse of the Community is different from that of the Consumer in that it constantly foregrounds the perspective of the “community”. Here the idea of the community is mobilized rhetorically as a kind of royal “we”. The community is described in various lights, but most often it is holistic, genuine, open & willing to work collectively through problems. Because

³⁰ The thread was created by Newell on April 25th, and at the time of this writing (October 19, 2016) it remains online. I collected a screenshot of the top 250 comments in direct conversation with Newell on May 11, 2016.

of these positive qualities, it is “legitimate”. Because of the paid mods program, the community is regularly described as under threat.

The Major Themes

Commodification

The “commodification” code applied whenever there was discussion of how monetizing mods would change (in any way) how modifications were produced or consumed. It is also where two distinct discourses arose, expressing concerns about disruption to the community, or disruption to the consumer. Quite early on it was clear that the one of the biggest concerns with commodification was piracy and market saturation. For example, one poster said:

You have created a system wherein one might potentially gain significant money for little invested effort (i.e., copy a legit mod that say, hasn't been looked at in a long time by its creator, change the name, sell it via steam for a profit and cash out daily until you get caught and your created-for-this account banned.) (reddit, 2015)

Another prominent post described this in terms of “moral hazard”:

Valve has created a moral hazard for gaming companies by selling mods. Modders often make unofficial patches. If mod devs put their unofficial patches behind a paywall, it incentivizes game devs to never completely fix their game or to intentionally break it so they can get a cut from the sales of these patches, creating a hidden cost for the game not listed in its retail price. This logic extends to a lesser extent to making poor game mechanic and balance design decisions, making sub-par graphics, and creating inconveniences for the player. (reddit, 2015)

Thus, from the perspective of selling mods, these commenters felt that commodifying the mods in this way would become a burden rather than a boon for those trying to sell them in the first place.

Swindlers and lazy mod-makers would always have the upper hand, and would abuse the system. Other commenters pointed out that commodification would poorly impact consumers:

As a consumer, let me just put you through the mindset that I have gone through in the past 24 hours. 24 hours ago, I could play skyrim with 100 mods for free, and some of the mods were great - the great ones, I'd donate to. Now, one of the most core mods, skyui, is behind a paywall. (reddit, 2015)

Another described paid mods as a paywall: "Listen to your customers. Please. We don't mind supporting modders. But we don't want a paywall. Nobody wants a paywall." The consumer side argument against commodification is often framed in these terms: that they don't want to pay to play each mod. Instead they would rather donate via Paypal or Patreon. But other commenters, like this one, noted that there was a link between the woes of modders and consumers:

I know people volunteering on large team projects that are suddenly turning on everyone and retracting their work because they can make a buck. This is RIDICULOUS and needs to be xed. I know that you have a duty to your partners, but you have a bigger duty to consumers. (reddit, 2015)

Commodification is at the root of two distinct ways of talking about this. When a socially useful good provided for free suddenly costs money, those involved, on both sides of the equation, feel that their lives will be impacted in serious ways. There's also the ideological framing of meritocracy at play.

There is a strong sense in communities of play and leisure that it is practice and skill that should be the most important value to be pursued, and that the rewards one receives from such skills are accolades and the good feelings of a job well done. This isn't always the case, however, as Caillois (2001) was once careful to point out that games of chance and skill often have rewards (lotteries or poker tournaments). These comments concerned about the results of mod commodification reflect the fact that some in the community don't even want mod makers to pursue their craft and pastime in search of profits. Instead implied is that mod makers have a duty to their fans and the community to make good mods that people want, as much as Valve has a duty to provide them the platform to do that. If these mod makers start looking for a cheap dollar, these commenters assumed that the magic of meritocracy is lost. That this is ideologically contradictory with wider societal discourses about competition and capitalism, i.e. that only the best products and services will be rendered by individuals motivated by monetary, means is very interesting.

Community

Community was easily the most recurrent theme discussed during the paid mods debate, where it felt like at times that the biggest anxiety for many was that not only would they lose free mods, but that the community with it. It's also important to note here that this the way I understood community wasn't unproblematically: i.e. that what the modding community spoke of as a coherent identity wasn't in actuality in any way coherent or inclusive. Community, the way it is used here, is as much about finding some kind of organic totality as it is about policing its boundaries and finding outsiders. For many, modding was why they wanted to play games on the PC in the first place, because it meant they had more control over the play experience as well as the community experience:

...by adding money to the equation you are fracturing the community that had grown up around TES modding. I feel this may do serious damage to the entire modding community, and IMHO its a really bad move in total for PC gaming; since a real big draw to PC gaming is Modding. (reddit, 2015)

An important interaction in the forum thread occurred between Newell and Robin Scott, the founder and operator of NexusMods, a popular mod database. Scott, earlier, expresses his concern about Steam implementing, in league with Bethesda, a “DRMification” of modifications, functionally turning mods for Skyrim into a proprietary feature of Steam. In it, he elaborates about doomsday scenario for his website and modding community: mods that would be *unable* to be downloaded and played through any platform other than Steam. After Newell says that it is their role as a platform owner to dictate such terms to a publisher, Scott responds:

However, we're not talking about limiting types of content, we're talking about the functionality of Steam being used to fundamentally change a principle tenet of the modding community that's existed since the very beginning. That is, the principle that the sharing of mods can be free and open to everyone, if they so wish, and that that choice remains squarely in the hands of the people who develop those mods. (reddit, 2015)

Scott is specifically getting at the tension between the community and the platform itself. There's a serious perceived threat to what makes the community distinct and important to those in it. This is a concern about the very material processes that enclosure and dispossession online can look like. Here a “free and open” community, materially embodied in the forums and websites they discuss and collaborate in, is finding itself subjected to processes that are outside their control. The fear that Steam and Bethesda might unilaterally decide to make *Skyrim* mods exclusive to Steam shows how a community hub like Nexusmods is subject to the dictates of a

platform. At threat is the moderate level of independence of mod makers from both Bethesda and Steam enjoyed by the community. This is just one short example of how “community” is mobilized discursively in defense of dispossession.

Intellectual Property

Intellectual property was mostly an implicit theme. I coded for it whenever I saw a comment that implied that the introduction of paid mods would create a problem because of intellectual property rights being enforced in new and confusing ways. For example, here a modder worries about what would happen to first-time modders when they discovered that building a new mod based on the code from another mod was no longer possible:

I haven't made a bunch of mods but the ones I have made were built on the shoulders of other modders. some of which actually came out and helped me figure out why some of my modded scripts weren't working. with the way the paywall is setup a beginner mod maker would be hard pressed to get that kind of help. because it might impact other mod maker's bottom line... (reddit, 2015)

Here, another commenter notes that mods had often been large collaborations coordinated through online forums, where tasks were divided up according to skill and interest. They were social endeavours:

...and here it is the problem: Ice frog didn't make dota alone, there were people before and during his takeover that worked and helped, there were people posting concept art for heroes and items, new ideas for both heroes and items, people beta testing, giving feedback ... etc and all was done on the dota forum , it was a huge forum . A few years later and Ice frog gets all the credit because he implemented and made choices on different

aspects of the mod . Dota 2 wouldn't have existed without the community especially not if every person would have taken his share of the "pie". (reddit, 2015)

The commenter here is proposing that one of the most popular and important mods of the last 10 years³¹ was in fact a large collaborative project where the majority of credit wrongly went to one person: Ice frog. Ice frog went on to get hired by Valve because of his role on *DoTA*, and as such, unfairly benefited because of the existing property relations in which mods were created.

Intellectual property is seen as a problem that gets in the way of true expression and true community. If every big mod created is a project with a division of labour and thus, many people working on it, when property gets introduced into the picture the rewards will get funneled to those who are able to take credit, even if they weren't necessarily the ones who could credibly claim it. This reflects the same concern I saw with the theme of "commodification": meritocracy is put at risk by property relations, rather than reinforced and encouraged by them. The paid mods debate certainly brought these issues into the foreground, but as evidenced by these stories, it's an ever-present tension within the community.

Greed

When commenters talk about greed, they are talking about the greed of Valve and Bethesda. Here it's talked about as a "cash grab":

I also believe this to be a cash grab from you guys and Bethesda. You say it hasn't generated much but the fact that you're defending it makes me think it will and that's all you and valve care about anymore. The system that was in place worked for decades and then suddenly, without warning this is brought up. (reddit, 2015)

A different commenter said that "This system is extremely profitable, which is the only reason

³¹ *Defence of the Ancients* was originally a modification for Blizzard Entertainment's *Warcraft III*. "Ice frog" was later hired by Valve to develop *DoTA 2*.

you decided to implement it.” Another put it more bluntly: “The goal is for you and Bethesda to make money. Just be honest.” A third described it as “an outright perverse incentive that does nothing to help the community or the average video developer and everything to increase the bottom line of those holding the purse strings.” Quite simply, regardless of what Newell, Valve or Bethesda said, many said that the move was motivated by an almost incomprehensible appetite for money.

I think what those who accuse Valve of greed lack is an understanding of how mods were *already* profitable for Valve and Bethesda. In a sense, these commenters see the 75% of each mod sale as an egregious moral failure to remunerate modders fairly, without seeing the hidden relationship that was present all along with mod making: it was unwaged labour where the profits (hidden through the unorthodox ways in which mods were valuable to publishers and developers) were 100% going to Valve and Bethesda. Because the relationship by which these corporations benefit from mods is opaque, it makes sense that a popular discourse of greed based on the blatant inequality in remuneration implemented by Valve would arise. In an interesting twist, the one-sided relationship in a fully exploitative system with no remuneration for labour is less likely to register with a lot of people than one that is “less” exploitative in absolute terms, but is now codified for all to see. By turning unforced, uncoerced, unwaged labour into contract labour, the real relationship between labour and capital is unveiled.

Market Failure

This theme was embedded in the other themes, and relates to some of the problems I discussed earlier concerning the Nieborg's (2015) many-to-few business model. Echoing concerns about the 1983 crash of the digital games industry, commenters identifying as both consumers and community members were concerned about a flood of games. Here one

commenter worries about the product quality: "...are you planing to do anything about stolen content? What about quality tests? The thing with mods is that they can fail and crash and you usually install them at your own risks." The case being made is that that it is consumers are those who will be punished unfairly. Another commenter says that the community has also suffered, with this actually creating a disincentive for the modding community to produce mods:

I think that this whole debacle has created a split in the Skyrim community with modders angry at each other for "selling out" and the players mad at the modders because we see it as a cash grab, and everybody's pissed at you and Bethesda. The community plus the mods have kept this game alive for four years and now we're all mad at each other and I feel this will be a clusterfuck to the end. (reddit, 2015)

Market failure takes place when a contradiction in production produces outcomes that are considered morally and economically problematic. Consumers lose out, and so does the community. This is also tied up with the community policing its own boundaries: what mods qualify as real mods, worthy of attention, and which mods don't? A big portion of what constitutes a market failure through "oversupply" is that "bad" games or mods would overshadow or drown the "good" ones. The value judgements about the quality of mods feeds into this discourse. It is not innocent or neutral, and is highly gendered process Shaw (2017) has noted. While without a doubt the "many-to-few" market dynamics are real, there's a complimentary discourse that demands purity from mod makers at play, and that is tied up with boundary policing inside the community.

Conclusion

In this chapter I have focused on two moments in the political economy of the paid mods dispute: the relations of production that Steam as a platform exists in and the discourses that play

a role in the production and consumption of the *Skyrim* modding community. The Discourse of the Consumer and the Discourse of the Community are manifestations of the same contradiction between labour and capital, which in the words of David Harvey (2010) is that: "I can make something beautiful and take it to market, but if I don't manage to exchange it then it has no value" (p. 42). In other words, it is exchange values that override the "useful" qualities of things according to the logics of the marketplace, rather than concrete human needs or desires. The pressure of the marketplace to reduce labour costs and also sell goods that can be sold for exchange value weighs heavily here. They exist in antagonistic opposition with to each one another while at the same time pointing to the same problem (the commodification of mods) as their origin point. This, for me, shows how discourse produces, reproduces, and re-articulates material practices.

In this case, the discourse of the consumer reproduces the ethics of the community, but also its contradiction: the continued fully unwaged exploitation of modder's labour. The discourse of the consumer reproduces this absolute exploitation under the guise of consumer ease of access, which still helps Steam continue to be the prime arbiter of accessing mods. These discourses show the consumer feeling frustrated by being forced to pay for mods that were once free, illuminating the monopoly that Steam holds in the digital games marketplace. They also show a community feeling subject to the whims of a company that wants to mobilize its users as a workforce, rather than an egalitarian collective of enthusiasts.

The disjoint in these two discourses is where I see the location for the discursive collapse between work and play. Because the platform is instrumental to linking both, in that it mediates the relation, it also makes visible the material collapse of both as well. Consumers talk about how they have no choice, no recourse, to what is going on. The community simultaneously

realizes that the space they are allowed to operate in is private property. Both groups want Valve to exercise legitimate control, but what counts as legitimate control is hardly agreed upon by both parties. For Gabe Newell, control is about taking as little responsibility as possible. For the community, it is moderation, support, easy access to tools, and a mechanism that avoids direct, pure commodification of mods. The chasm here, between what Valve is legally allowed to do with their platform (just about anything they want) and what consumers and community members think is legitimate is massive.

It is particularly interesting that after Newell's creation of the reddit thread I analyzed (where he doesn't interact particularly often with the most scathing criticisms from either discourse), the program was discontinued not even a week later, pending further development and testing.³² It is debatable if anything specifically said in this thread led to this discontinuation. Instead of any one discourse, it was likely the intensity and frequency of feedback from various places, both on the official Steam forums, enthusiast websites, this reddit thread, and through e-mail.

The platform's technical control of mods is its ability to influence them directly through unilateral changes to the platform's operation. This explains in large part the anxiety that was displayed by Nexusmods' operator, Robin Scott. He asked publicly for Valve to refrain from fully enclosing mods on Steam. Scott knew that as long as Steam allowed mods to be created and downloaded on other services, the old arrangements put into place to support the modding community could continue to exist. But if Steam decided to leverage more control over the process (like they did with the paid mods program), their hobby, as it once existed, could easily

³² Most recently Bethesda relaunched a less complicated version of paying modders for this work: the Bethesda Creator's Club, which fully internalizes the process by which *some* (not all) new mods will be rolled out "officially" where the mod teams get paid for their work. This new formulation of this ongoing process is worth investigating, especially as it becomes normalized (Bethesda, 2017).

disappear. In other words, it could be dispossessed from them. Put simply, when Valve introduced the paid mods program, they created the conditions to fully commodify a social practice that had been partly plugged into the circuit of capital, but not entirely. By doing this, Valve intended to allow popular modders to be remunerated, but had not realized that these same modders didn't view the situation in the same way. What Valve also missed was that modders building in groups with complex divisions of labour would have different needs from a system of commodification than those creating niche or small mods as a hobby (Nieborg & van der Graaf, 2008). In other words, the paid mods program announcement and implementation brought to the forefront a series of social contradictions that had previously been latent in the practice of modding. These contradictions found expression in the discourses found on forums like reddit (this chapter's case study), which showed a community and consumer base that was ill at ease with the social dynamics of commodification.

All of this shows how Gillespie's (2010) call for a critical analysis of platforms is ongoing and still needed. Beyond just the concept of "platform" being both contested and highly politically charged, there are seriously frayed *edges* to them. Discourse back and forth between those who own them and those who labour and play on them show that there is an ongoing contestation of what these platforms are and will become. In the case of Steam and the paid mods dispute, this means the spectre that haunts all discussions of ownership, platforms, work and play, is the spectre of meaningful activity that isn't tied to waged and unwaged labour. Making mods and playing with them might seem mere expressions of hobbies and play, but a hobby is only a hobby in the context of a social world with wage labour. It's worth continuing to theorize what a world without wage labour would look like, and what hobbies, play, and games would look like in such a world, because the contradictions in the here and now are so apparent.

Chapter 5: Space, Shopping, and Steam

This chapter investigates the spatial and market dynamics of Steam as a platform, and this aligns with the discourse of those who build such platforms. It is broken into two parts, each investigating a different aspect Steam's position in the production of digital games. The first is an analysis of the relations of production into which Steam fits. Here I discuss the historical role of shopping in town centres, the switch to privately owned shopping centres and malls, and finally the development of e-commerce and the development of platforms as a privately owned/private space that provide services that were once considered either public or, at the very least, more communal. The second is an analysis of the frameworks of knowledge that rationalize Steam's growth and power both before and after the fact. The case study is composed of a public talk given by Valve CEO Gabe Newell in 2013. A heavy emphasis throughout is the spatial dimensions of the case study. Ever present are the problems in production and consumption that are solved through what David Harvey (1982) calls a "spatial fix" for capital. Ever-present is a spectre of the next crisis in production and consumption, which spatial fixes temporarily postpone, but never rid themselves of.

"The wealth of those societies in which the capitalist mode of production prevails, presents itself as "an immense accumulation of commodities," wrote Karl Marx (1867) in 1867 (p. 126) . I am reminded of this opening passage to *Capital* vol. 1 when I open Steam, where I am immediately directed to the store. Here I am presented with an immense accumulation of commodities, most of which are digital games. There are more than 9640 games, all available for purchase and immediate download. Games flow through the servers of Steam at a rate that previous eras of video game consumption was only rivalled by the biggest video game retailers like Best Buy and Wal-Mart. According to Valve, Steam is one of the highest users of bandwidth

in the world, around fourth place, outpacing most individual countries in traffic (Newell, 2013). Steam thus currently controls the largest market share of digital games distribution through their network infrastructure.

“Why does this monopoly matter”, I’ve wondered throughout my research, and the best answer I can come up with is that Steam’s monopoly in games distribution and sales can’t be ignored, and likely has unseen consequences for how games are understood as one of those immense accumulations of commodities. Steam distributes games which then run on personal computers (published by dozens of other companies, either directly or through third-parties). These companies all negotiate or get dictated (depending on their size) a cut of each sale that each party will take when the game is finally sold. Steam gets to command this cut of each sale, and in the process make quite a lot of money. If Steam (and other digital distribution platforms) make so much money by doing this, why does anybody put up with them, if the internet is distributed and decentralized? Why don't app and game designers just directly distribute their commodities directly to consumers? Why is Steam special, and why does it make sense that in spite of the “decentralized” nature of the internet, there’s still a need for digital distribution platforms?

In the introduction, I set about making the case that Steam, as a platform, is central to a new and powerful form of what David Harvey calls accumulation by dispossession. In this chapter I show how Steam, as a digital storefront plays another role in accumulation by dispossession. Based on the relations of production that the Steam Store finds itself in (consumer capitalism) it makes possible the ongoing privatization of public space, and the centralization of control in the hands of private corporations, that has been at the core of capitalism in the developed core countries since the late 1940s.

First, I'll explain the historical and economic context of consumerism and shopping with a brief detour to the rise of shopping malls in 1950s suburban America. This sets the stage, explaining the evolution of shopping as a practice that was once bounded to town and city centres, but which was slowly transported to suburban, purpose-built shopping centres. It was in these shopping centres in large department stores where video games as a consumer commodity were first sold. As mass consumption was firmly in its developed phase in the 1970s and 1980s, video games became mass consumer items, built to fit into the living rooms and dens of the contemporary "typical" middle-class family.

From this entrenchment in suburban life I draw a line from the sale of video games in specialist electronics stores to the birth of e-commerce and digital distribution over the internet, with early examples like ID Games' *Doom* (1991). The rise of the first e-commerce platforms and companies in the late 1990s presaged the later creation of digital distribution platforms like Steam and iTunes. In this context, I place Steam and describe how it functions as a "cultural intermediary" while also sedimenting, what Stuart Hall (1980) calls necessary passage point (by way of a monopoly market position) for computer games on personal computers.

The rise of Steam's particular form of digital distribution of games occurs in the wake of the mass consumerism that defined the latter half of the twentieth century. My argument is that there is a distinct trend, a through-line, that is reflected in the growth of the online distribution platform that can be traced by looking at the rise of shopping malls. Shopping malls supplanted town squares, and now digital distribution and e-commerce is slowly supplanting the shopping mall. The work of Lizabeth Cohen (1996; 2003) shows how this change took place primarily in the 1950s and the 1960s. The key feature of most cities in North America following the second world war was white flight from deindustrializing city centres and the construction of suburbs

based primarily around the automobile (Cohen, 1996. p. 1052). How people shopped was also impacted, when small suburban cities and towns grew rapidly, there was a shift away from the old small-town centre towards the highways and the suburban shopping malls that were made accessible through them.

With the shortage of housing in urban centres, combined with systemic (urban planning that increasingly ghettoized and underdeveloped predominately African American communities) and systematic (fear of the large African American diaspora moving to the industrialized Northern cities in the 1930s and 1940s) racism, a large portion of North Americans moved into the suburbs (p. 1051). These suburbs in turn demanded a lifestyle arranged around the use of the automobile (p. 1052). Yet early on in these suburbs, it was still assumed that shopping was to be done either in the traditional town centre (with its arrangement of small shops) or the downtowns of large cities (with their assortment of department stores, which had been in existence since the late 19th century (p. 1052).

In the 1950s this began to change, just as a particular kind of rhetoric around the importance of consumption became “common sense”: Keynesianism (p. 1050). John Maynard Keynes’s theories, which had come to prominence during the Great Depression, suggested the various crises of capitalism were inevitable, but controllable, as long as the state was willing to spend large quantities of money on public projects — through wages — to jumpstart the economy and keep it from falling into a death spiral (which was reinforced by the typical austerity associated with government spending in times of economic contraction) (p. 1050).

It is noticeable that shopping centres were constructed to displace and shift mass consumption away from the small town square and the big city downtown just as the truism of Keynes was accepted as dogma in United States policy circles. As Cohen (1996) notes, there was

a particularly relevant editorial from *Time* magazine in 1965, following one of the biggest growth periods in the American economy. In it, the consumer, government and business can, together, take the credit for the generalized prosperity. They had “created a non-vicious circle: spending created more production, production created wealth, wealth created more spending... the consumer is the key to our economy” (p. 1050).

Shopping centres, for Cohen, are the heart of this new optimism of the consumer. Massive, multimillion dollar projects began being built around the United States by Victor Gruen, a Viennese socialist who wanted to recreate the agoras of Europe. Despite Gruen’s progressive interests, shopping centres quickly began to be built with a more decidedly capitalist and conservative mindset while still utilizing a thin veneer of “community” to articulate itself as a positive step forward for communities (p. 1056).

Cohen has three major conclusions about how malls restructured American commercial life which I loosely paraphrase here. The first is that in commercializing public space, they brought community life to market segmentation that increasingly shaped commerce. Second, in privatizing public space, they privileged the rights of private property owners over citizen’s traditional rights of free speech in community forums. Finally, in feminizing public space, they enhanced women’s claim over the suburban landscape but also empowered them more as *consumers* than producers. (p. 1053-1054) Each of these show how a space dedicated to commerce could have a huge impact, how it *shaped* everyday culture in a variety of ways.

For example, as the malls were built, they initially deliberately included community-minded spaces and services, which would shape how people would interact with commerce and community. As Cohen notes:

The general manager of Willowbrook Mall, a shopping centre not far from Paramus, explained that the Ernest Weingolds (people inclined to spend numerous days a week at the mall) of the suburban world made it easy to program activities about forty-five weeks a year. “Whether its charity fairs, 4H exhibits, meetings of the Weight Watchers or the concern by the local barbershop quartet, we find that people respond — and that’s what counts. In the new public place of the shopping center, consuming and leisure were becoming inseparably intertwined, constructing community experiences around the cultural tastes of the white middle-class suburbanites” (p. 1063-1064).

The shopping mall is an early example of a spatial / social phenomenon that begins a process of a qualitative collapse between two social activities: leisure and consumption. At the same time, the shopping centre is created and targeted at a very certain kind of person - the white, middle-class suburbanite. It both empowers them in certain ways (women begin to gain some control over certain spaces and social practices related to consumption) and leaves others behind. Notably, many African Americans were structurally left out of the new public space of the shopping mall, either because they lived too far from the mall or because they had no reliable access to automobiles. Often when public transit was an option, it served other suburban communities or was infrequent: “While African Americans and their supporters were prodding courts and legislators to eliminate legal segregation in public places, real-estate developers, retailers, and consumers were collaborating to shift economic resources to new kinds of segregated spaces” (p. 1079).

In this way, the shopping centre fit both economically and socially into a dominant form of capitalism (i.e. a capitalism bolstered significantly through white supremacy) in the latter half of the 20th century, while also radically altering culture and ways of life for the vast majority of

people. A key discursive component of this culture was the deep intermixing of community and consumption. The ideal shopper was a local with an investment in the “idea” of the mall as a place to be a citizen and a consumer. It was important to the malls to carry over the tradition of community from the town centre. I don’t think it’s a coincidence that Steam also has a tab called “Community”, that is integral to the whole service.³³ The history of shopping malls shows that from the beginning community was integral to the spatial and discursive construction of shopping. This remains the case with digital shopping and e commerce, and the discourse of the community is frequently mobilized to reinforce this interconnectedness.

Digital Platforms and Distribution

Digital distribution on the other hand, truly does overcome a serious physical constraint that *radically changes* things. In Marx’s terminology, this means that those who are capable of using digital distribution technologies to physically deliver the commodity to their customers overcome a traditional boundary of space and time to gain a new form of *relative advantage*, generating relative surplus value. The iTunes Music Store’s early success over music sales for eight years show how lucrative that advantage is if it’s arrived at first, especially with the appropriate software and investment advantage that Apple already had. That being said, Apple’s marketshare in the digital distribution market has shrunk as of late, especially for video content (Fitz & Mickle, 2017).

In terms of the shifting relation of culture and economy to consumption and space, the shift towards e-commerce and digital distribution away from the post-war shopping centre shows a radical reorientation of power away from one kind of capitalist and rentier to another. Instead of leveraging the power associated with managing complicated distribution, warehousing, and

³³ Again, the concept of “community” here should not be understood unproblematically as some kind of natural, organic thing. Instead communities are ever changing and very much the product of discursive and material forces.

shipping networks which simultaneously demanded such spatial considerations as where to put products on the display floor, the new platform owners wave this all away with their new, fully digitized space that relies on telecommunications networks, personal computers, and cloud computing software. This is a space outside of the usual, common sense notion of space: the internet (Greene & Joseph, 2015).

But the internet is not a place where power dissipates. Instead it is where it re-articulates itself. Quite often because the network infrastructure that the internet is composed of is by design distributed, decentralized (peer-to-peer), it is considered an egalitarian space (Galloway, 2006; Mueller, 2004). In truth it is anything but, because the tendencies associated with centralization and monopolization work in cycles. They are never solved as limits: instead, they are “fixed” for short periods of time and delayed. The crisis that these limits create continues to loom.

There is, however, another feature of the digital games industry that deserves some attention, especially as it relates to the political economy and spatial arrangement of the selling games: that of the early monopolization of the home video games market by a small number of console manufacturers and publishers. The first digital games were programmed on computers in scientific laboratories funded by the US government. These games, like *Tennis for Two* or *Spacewar!*, were hobbyist projects that could only be played on the most expensive and powerful computers on Earth. The popularization, and general commodification, of digital games didn't take place until after there had been a substantial boom in arcade culture in the late 1970s/early 80s, and a drastic fall in the cost of consumer-grade computers. The creation of the Atari VCS proved to be the breakout home console: a purpose-built, computer dedicated to playing games using the home television set as its screen (Montfort and Bogost, 2009).

Because at this time personal computers were still very expensive, and thus often the hobby of only the most dedicated programmers, digital games came into the popular consciousness as consumer items via the console. This early boom for digital games proved to be in some ways premature, however, as in 1983 there was a massive crash in the console market. This was due in part because of the flooding of the market with different consoles: the Atari 2600, Atari 5200, ColecoVision, Intellivision, Odyssey 2, and Fairchild 2, to name a few.

The crash was at least partially due to a crisis of overproduction: because of the quick boom of the market in the 1970s, there was a massive oversupply of poorly made games for the various consoles. Many of these games were poorly made, and sales dropped. By 1985 Atari was broken into two distinct companies. As JC Herz (1997) put it, consumers became “unable to distinguish the pearls from the dross”. The “dross” — which was located on the shelves right next to the pearls — was one element that played a role in putting the industry into crisis.

Nintendo’s Famicom (short for “Family Computer”), released in 1983, rejuvenated the console industry (especially following the North American release under the name Nintendo Entertainment System). To do this they pushed to vertically integrate the whole process of digital game production - acting as a developer (coding and designing games), a publisher (funding, marketing and distributing) and the owner of the platform itself. Sega, Nintendo’s major competitor at the time was also manufacturing consoles, the Mark III in 1985, the Master System in 1986, and struck upon success with the internationally released Sega Genesis in 1988 (1989 in North America) (Kerr and Flynn, 2003).

Nintendo achieved this integration by way of controlling the quantity, and quality, of the games that would be sold on their platform. Nintendo famously enforced this with their “lock-out” (the Checking Integrated Circuit) chip, which would not play any game that didn’t have the

corresponding key given out by Nintendo. By tightly controlling who could and could not publish with strict licensing arrangements, Nintendo could demand high royalties and enforce content restrictions. In 1994 in Japan, and in 1995 in North America, Sony followed a similar business model, entered the marketplace with its Playstation console, and by 1999 they had become the largest publisher in Europe (ibid).

This vertically integrated, highly managed and controlled business model would appear to stand in stark contrast with the “open” platform of the personal computer. Games on PCs generally were only tied at the most basic level to the operating systems they could be installed on, and the market dominance of Microsoft’s DoS, and later Windows, meant that there were few alternatives. Game developers also didn’t have to pay royalties to Microsoft to allow them to create and sell games, as Microsoft was happy to reap the benefits of their virtual market monopoly by selling operating system updates and their business productivity software to large corporations. While PC gaming wasn’t restricted by the gatekeeping of relatively conservative corporations like Nintendo, they still had to deal with publishers to fund, market and most importantly, distribute their games. PC games, much like their console counterparts, had to be boxed in cardboard, shipped, and put on shelves.

Spatially, PC gaming and console gaming conformed to similar (if still distinct³⁴) cycles of production and consumption. The material reality of packing and selling a game overdetermined the digital qualities of the commodity, keeping both PC gaming and console gaming on a somewhat institutionally different, but broadly similar path as commodities. Both needed publishers, and the financial backing, marketing, and distribution they provided.

³⁴ PC games were often only stocked in PC specific stores, while department stores like Sears would eschew them entirely.

The big change that threw these pre-existing relationships into disarray, is, as I said above, the internet, but more specifically, the decreasing cost and increasing availability of high-bandwidth connections. In the case of the iTunes store, an entirely new way of distributing music, originally the sole purview of illegal pirates, became the biggest retailer of music in the world within 5 years of its launch.

David Nieborg's (2015) work on the rise of "freemium" games, primarily sold through distribution platforms like the iTunes store, is an important account of the transition to software marketplaces dominated by the hegemony of digital distribution platforms. The iTunes music store branched out from its initial focus of selling music towards selling applications ("apps"). Some early breakout apps (for example, *Drop7*) were games for the iOS (Apple's proprietary operating system for the iPhone and iPad) suggested that the old rules of game development had changed. Suddenly unknown game studios were massive overnight success, selling millions of copies of their games.

Could anybody could have a successful game on a mobile platform, now that the barrier to entry was lower? Nieborg suggests that this is not the case: "I would contend that the mobile segment should be considered as a "many-to-few" model. A handful of superstars camouflage the inherent power asymmetries and the strong winner-take-all dynamic constituting the political economy of the information economy" (p. 228). The shift to online consumption has not shifted the power dynamic towards small creators or consumers. The biggest change that Nieborg notes with the rise of digital distribution is that *between* producers (developers), publishers, and distributors. It has been re-arranged in favour of new organizations that hold a privileged position in the chain of production: platform owners.

While the physical hardware of PCs, and specific histories of PC and mobile games are different, they both share the same general trajectory as exemplars of the shift towards digital distribution: the “many-to-few” model of production. Consoles, on the other hand, are best described as a “few-to-few” model: a *few* publishers and developers selling their games for a *few* consoles. App stores, on the other hand, are premised on the “many-to-few” business model because the overall centralization of distribution is means that many developers create games for only a few app stores. This is a direct result of the shift in the mobile phone marketplace after the introduction and growing popularity of smart phones. Previously, telecommunications companies and cell phone manufacturers held the “keys” to the hardware & software of the platform. This meant that if a software developer wanted to create a program for the phone, they would have to speak directly to the manufacturer of the phone. Development for these platforms was complex and cumbersome, and thus was a semi-walled garden.

Prior to the iPhone, the most popular cell phone used for internet dependent tasks was the Blackberry line of phones manufactured by Research in Motion. Designed for networks with limited and expensive bandwidth, Blackberries only allowed users to send and receive e-mail. The iPhone was designed deliberately to go beyond business-centric e-mail. Instead, it would support internet browsing, which had, to this point, been poorly translated onto the few already existing smartphones. On an iPhone, browsing the web was as similar to using a personal computer as was possible at the time. A massive marketing push combined with Apple’s already well-established brand and market position with MP3 players resulted in the quick success of the iPhone.

Maybe most importantly, Apple quickly released the iPhone SDK (later renamed the iOS SDK) that allowed third-party developers to create apps for the platform (Apple, 2007). This

SDK provided developers with a virtual phone they could run the apps on while they were developing it on a PC. To publish the app these developers only had to pay an annual \$99 USD “iOS Developer Program” fee (Ibid). In doing this, Apple created a system that was considerably easier for small developers to access initially. Instead of having to initiate a formal business relationship with a massive company like Nokia, a developer need only spend \$99 to publish in the biggest app store in the world, on the world’s most popular smartphone.

The ease of use of developing a game for the iPhone also comes down to the radically lower costs of developing apps for it. Generally, a developer will not need to spend too much money on an expensive proprietary software licenses to make a game. One program commonly used by game developers is Unity. Unity, in its most basic format, is free, and for the most professional build, \$125 USD a month. The differences between the builds relates directly to in-built tools explicitly designed for developing and managing game construction as a full-time business (Unity Technologies, 2016). Much the same can be said about Steam, as developers also have access to Unity and other low-cost development tools for making games.

The Discoverability Problem

Access to the platform is cheaper, but that is where the ease of use, in a lot of ways, disappears on these platforms. It’s clear that they allow for “many” to develop an app, but the platform itself is the “few”. This is because the app store functions as what Stuart Hall (1980) calls an “obligatory passage point” in the consumption for an app. There are only so many platforms available for people to sell their apps, and on top of this, there is the issue of “discoverability”. Who will get to see your app, so they can then buy it? Most apps on the iTunes store will end up many pages deep from the first search results, with very few downloads or purchases. This means very few games will become the biggest hits. For example, the top 100

mobile games (0.05%) generate 40% of all revenue on the iTunes store (Llamas, 2014). Games also make up a huge portion of this revenue, by some calculations totalling 80% of mobile sales on all platforms (Ibid). This, in a lot of ways, harkens back to Lenin's (1963) analysis of capitalism in the early 20th century, and the importance of monopolies:

Less than one-hundredth of the total number of enterprises utilise more than three-fourths of the total amount of steam and electric power! Two million nine hundred and seventy thousand small enterprises (employing up to five workers), constituting 91 per cent of the total, utilise only 7 per cent of the total amount of steam and electric power! Tens of thousands of huge enterprises are everything; millions of small ones are nothing. (p. 1)

The same might be said of apps and games on these digital distribution platforms. Thousands of front page apps are everything; millions of buried apps are nothing.

At the heart the question of discoverability is the act of "curation", the act of organizing the assorted digital commodities for sale on these platforms. Curation is about ordering and displaying objects, and in the act of ordering one makes certain objects visible, and others hidden. It is also about space. Curation of commodities on store shelves once was constrained by the size of the brick and mortar store (how many shelves can one fit in it, and still leave enough room for shoppers to comfortably move about?). It was also constrained by the size of the shelves and commodities sold. With digital games, the size of the floppy discs, cartridges, CDs and later DVDs set the standard of the packaging, and thus the amount of games that could fit on a shelf with their full cover art on display.

While in a digital storefront there is theoretically no immediate limit to either a showroom floor or a digital shelf, there is still space to tangle with, in this case, the space of a computer screen. While digital distribution platforms have search functions, a large portion of

sales could be attributed to the prominence with which the games are seen, and one would assume that this correlates highly with a game's appearance on the "splash" page of a platform's digital storefront. In this way, a digital storefront has many of the same problems that brick-and-mortar storefront displays have. Publishers would pay a premium to have their games displayed on special racks at the front of a store. No doubt, they do the same with digital ones.

With the massive supply of apps and games on these platforms, app store owners take on the role of a gatekeeper. They engage in the act of filtering, judging, and organizing the games and apps available. Some might embrace this power with gusto, while other companies, like Valve, want nothing to do with it. Yet even if they don't want to curate (and would rather let their customers take on this role), they have to, for the time being, work as curators.

This is because developers are tied to the owners of the platforms both economically and technologically. The market shares that these stores command means that any developers who would eschew them would suffer not only from the lack of availability on their respective platforms, but from the lack of visibility and discoverability that the stores provide. Thus, while there are more people than ever creating digital games and apps for these stores - they still must go through these *few* stores, which hold a formal monopoly on their platforms creating many (developers) to few (platforms/stores).

Nieborg says that:

...the operationalization of the app stores associated with emerging platforms advance a fundamental shift in the locus of control compared to traditional value networks configurations in the game industry. In many segments of the cultural industries, such as the market for recorded music, the democratization of the means of cultural production put considerable pressure on incumbents (e.g. Brockstedt, Kaufmann, and Riggins, 2006).

In the mobile segment, however, the locus of control shifted to platform holders. Or as Bergman-Kåreborn and Howcroft argue, the notion of self-control of developers is a facade “restricted by marketing conditions and power asymmetries.” (2013, p. 236)

I would argue that this applies, in a similar way, to the PC market on which Steam also holds a monopoly. The barrier to entry is lower for game developers than it has ever been. But the Many-to-few business model relies on a series of protected, privately owned and operated distribution networks that serve to either bury, or, if one has enough capital, prominently display, digital games. The few platforms still hold most of the cards, and the many developers have to play by their rules.

The Discursive Construction of Steam as Digital Marketplace

A great example of the discourse of knowledge that informs how Steam is developed as a platform would be in Gabe Newell’s presentation at the University of Texas in 2013 (Newell, 2013). An important thing to keep in mind is the context of the presentation: it was held at the Lyndon Brian Johnson School of Public Affairs, a school dedicated to a mixture of political science and public service training. The presentation Newell made was at the invitation of Yanis Varoufakis, a relatively (by then) prominent public intellectual and academic economist. Varoufakis became known in the post-2007 economic crisis as a heterodox economist advocating for macroeconomic policies that were counter to accepted neoliberal dogma. He was later hired by Valve sometime after 2008 to work as an “Economist-in-Residence”. Varoufakis worked in this capacity with Valve for a number of years. In 2012, he wrote up his experience with Valve in a series of blog posts, giving those interested a crash course in both mainstream econometrics and heterodox political economy like Marxism.

In January 2013 Varoufakis invited Newell to the Lyndon Brian Johnson school to expound on his own theories of why Valve was, as he described it, “interesting”, particularly beyond their well-known success. The explanation, broadly, was to show how trends in the digital games market are indicative of larger, more widespread trends in the realm of services and manufacturing.

In this context Newell spoke about the importance of management, the division of labour, productivity, and the constitution of “value”. Quite a bit of his talk focused on Valve’s business and organizational strategies: its hiring practices, the kind of employees they hire, its management structure, etc. Most relevant to this chapter concerns Gabe’s extensive discussion of Steam. Newell describes the platform in specific economic terms, and thus shows the deep connection between the discursive realm and the economic sphere. To put in Stuart Hall’s (1980) terms, it illustrates the interconnectedness of the various *moments* in the process of communication. That even though the frameworks of knowledge, the relations of production, and technical infrastructure are all “relatively autonomous”, there is still a distinct thread that connects them, and sets the material limits for their horizon of possibilities.

After a preliminary pass at coding the speech, I came up with several pertinent themes that are relevant to Steam’s development as a store: *distribution as a commodity*, *value* and *productivity*. Each of these form an individual narrative arc for Newell throughout his talk, all leading him to his conclusion that Steam is a platform that enables a new kind of production and distribution model that works for digital games, but can be generalized to all sorts of commodities. I feel that these themes all link together to form a coherent discourse: *the distribution of productive play*.

It isn't just what Kücklich described as "playbour" being described here. Kücklich's theory was that mod makers were adding value, in the form of marketing and community building, to already existing games. Their hobby helped generate surplus value. The picture that Newell paints is somewhat different: it links together content creators (those who want to sell their games as well as sell mods and other content) and the player/consumers that will buy this content through a robust system that is mediated directly by Steam. Now these mod makers, and even just regular players, are directly plugged into a series of mechanisms that account for and remunerate play as labour. Steam is the chain that links them together. Without Steam, there would simply be various archipelagos of games and players. With Steam as his object, Newell articulates a new kind of spatial relationship of production and consumption, play, and labour. In a sense, Newell builds on already existing theories like playbour and articulates what the future of the social process will look like.

Distribution as Commodity

Newell spends a good portion of his presentation describing his experiences in previous jobs in the software and tech industries, and how various companies mishandled how they sold their products. A common theme is that these companies had an advantageous market position and were successful, but failed to understand their deficiencies as the importance of distribution and direct relationships with customers became more important for software sales. In one anecdote Newell notes how in the 1980s, there were large distributors of computers, like Business Land, who were able to resell computers for double what they bought them for. He continues: "Flash forward to 2012, often times games are sold at negative margins at retail" (Newell, 2013). Why is this the case?

Newell claims that games are now being sold by brick and mortar stores at a loss, just to get people through the door to possibility of buying high-markup items, like “black CDs or something...”. There is a before and after in this narrative: before, computers and software were sold for a mark-up of 100%. Now they are sold at a loss. He asks “Why did this part of the value chain lose so much control over the whole process?” (Ibid). This leads to Newell describing why and how Valve came to be. The story of Valve is the story, in a lot of ways, of the squandering of a monopoly by Microsoft and other corporations failing to understand the role that made them important in the production process.

According to Newell, Microsoft failed to understand the importance of what they discovered in an important survey Microsoft commissioned in the 1990s (Ibid). In it, Microsoft sent out researchers to physically look at how their products were being used. This study was done in large part to understand how consumers used the PCs that had been sold with the Windows operating system. Prior to this, Microsoft had very little data on what the people who bought Windows did with their computers. They had sales figures, compiled mostly from reseller lists, but these resellers themselves were still one step removed from consumers: they merely sold the computers and software to actual retail stores, and had no idea how many computers were sold, or what consumers were interested in. To rectify this, Newell says Microsoft’s study just wanted to find out if people actually used their operating systems.

Newell says that they did, but that Microsoft was particularly quick to “ignore” that one of the big findings of the study was that everybody used their computers for “porn and video games”. It was the #1 product on home computers. But key for Newell is what was listed at #2: the first person shooter, *Doom*, which was released in 1993. Newell notes that *Doom* is important not because it was fun or well designed, but because of how it was distributed:

Doom was one of the first first-person action games made by a company in Mesquite, Texas. So somehow the biggest software company in the world was being out-distributed by a twelve-person company in Mesquite, Texas. And there was no conception, there was no model for why this made any sense. How could they have possibly done that? It had taken years to build up distribution strength to go up from number 7 to number 6 in the word processing category. Much less come out of nowhere with a product that would be on more desktops than the most important product that Microsoft had. (Ibid)

Doom had been distributed in large part through shareware, which meant that the first levels of the game were free for anyone to play, and that if you wanted to buy the game, you could send money through the mail or buy a full copy at the store.

The other important thing to happen at this time for Newell was that in Microsoft people like Rob Glaser (who later founded Novell Netware), were pushing for Microsoft to double down on indirect sales to distributors: “They weren’t even going to sell to customers, they were investing in an indirect channel making this giant, building this giant organization that continues to live on within Microsoft all these years later. Who were not actually directly involved in making sales” (Ibid). Here are the two key examples for Newell: id Software, distributing *Doom* directly to millions of people through shareware (distributed digitally or through complementary floppy disks), and Microsoft, investing heavily in 500-person sales teams to sell their software indirectly to regional distribution companies.

Out of this Newell notes an interaction with the software company called Ventura, the makers of *Ventura Publisher*:

It was the same kind of thing as *Doom*. They were the first people that I ever met with who explicitly said retail distribution and marketing is a commodity, and we’re not even

going to bother investing in it. Instead we're gonna build a great product, and once we have a great product we will turn around and put it out to bid. Who will give us the best percentage? (Ibid)

In other words, Newell is discussing how technology and software companies were beginning to think in terms of segmenting different aspects of their business, beyond the creation of just software. Ventura decided that they wanted to remain *only* a software company, and would outsource distribution and marketing to others who could offer them a better price on these commodities. Newell went on to say that “whole categories within typical corporations were essentially being made obsolete...” and what began to matter more than ever was “low friction delivery” of the products a corporation was creating (Ibid).

Newell here is describing the massive shift in production and the importance of distribution, as well as communication, that occurred in all sorts of industries. Most importantly, Newell here lays out his own opinion that distribution and communication are central to any kind of business, and that it was an important consideration for the path that Valve as a corporation went forward. Newell's description of Valve's original organizational plan, and its preference for finding and paying for the most expensive, and productive talent in the world, certainly seems influenced by this. But it also suggests that Valve saw distribution as a commodity, maybe not the most important one at the time when they formed, but one to be considered as a distinct sphere that deserved special consideration. This special consideration is warranted because Newell makes it very clear that Valve is interested in pursuing value wherever it can be found.

Value

Newell says the word “value” 28 times throughout his presentation. This doesn't mean, however, that the word is intrinsically meaningful without context. Because of its frequency and

the connotation of the word, I found it to be worth of special consideration. It's more important to understand the concept as one that links a discourse together. This means "value" is a *theme*. It describes something important that Newell has observed over his career, and I believe that he's using it in its classical *and* neoclassical/neoliberal economic denotation. In the classical system, value is understood as something produced by labour - the labour theory of value, which was generally accepted as a dominant paradigm by Adam Smith, David Ricardo, and Karl Marx.³⁵ In the neoclassical/neoliberal system, value became more nebulous: re-worked to totally avoid the thorny problem of measuring labour in distinctly non-labour-intensive activities and businesses, value came to only mean that which consumers themselves were willing to pay for.

Economists like Frederick Hayek (one of the founders of neoliberalism) and Milton Friedman (known for his theory of "monetarism"), were both instrumental in popularizing the neoclassical/neoliberal framework that eschewed the centrality of labour to value (Harvey, 2007). Value in this context became "ideal", rather than something concrete. Newell is interested in both kinds of value: the sort that is imparted into the production process through labour, and the other kind that is concerned with the desires of the consumer, the "value" that they see as worth spending money on, or amassing as wealth. Both of these form a unity as a distinct theme: value is flexible.³⁶

³⁵ This isn't to suggest that these theorists agreed on the specifics of this, however. For instance, David Ricardo's labour theory of value was tied directly to labour-time, while Marx's appealed to socially-necessary labour time, or abstract labour (Harvey, 2010, p. 20).

³⁶ Because Newell does talk about labour creating value and value popping out of thin air, it's likely that this is actually the most neoliberal form of value possible: something is "undogmatically" flexible as long as it easily explains whatever is happening at the time. In the end, I think a more concrete approach to where value comes from (labour) will always yield more accurate predictions.

Newell talks about value more extensively at first when he discusses the organizational strategies of Valve. He first discusses value in terms of labour: what are the kinds of workers they wanted to have at Valve?

What we became convinced of, the character who is the other founder and myself, was that everybody was going in the wrong direction. There was a movement towards outsourcing. Outsourcing is where you try to find the lowest-cost English speaker somewhere in the world and will give them a job and they will do it, just as well for a lot less money. To us that seemed just exactly just the opposite of what you should be doing, so we decided that we were gonna buy the most expensive talent that was out there in the world. The opportunity was, those were the people who were least correctly valued. By talent, which is a word I hate, just means the ability to be productive. (Newell, 2013)

In other words, Valve was going to hire and employ people and pay them very high wages, which goes against many of the usual assumptions of running a capitalist enterprise. The gamble that they were going to make was that instead of wasting money, the wages they were going to pay were actually still going to be much lower than the overall productivity they would get out of these highly talented people. Value inputs — directly relatable to the labour of their employees are a serious, and central, consideration for Newell. Elaborating, he continues:

So we started from the assumption that even though it was easy to see that there was a huge variation of productivity in software programmers, there was probably that same variation in a lot of other roles. So when we designed Valve ... everything goes back to this fundamental question, how do we attract and maintain the most highly productive people in the world? Because if our thesis is correct, that's where we're gonna create our greatest incremental value. We could hire a whole bunch of, there's a big thing where a couple years ago, where everybody

was trying to hire low cost content producers in India and China, and we're trying to do the opposite. We're saying that somebody somewhere you know, somebody working on the feature film production in New Zealand is making 200k a year. If they come to valve they should be making 500k or 5 million dollars creating that much value, and we split the difference, and go from there. (Newell, 2013)

Here's one kind of value: the value produced by workers, those with the highest productivity, in contrast to the productivity produced by hiring people in developing countries, who will, according to Newell, not be as productive. Spend the money now, and reap the benefits later.

Newell then starts talking about value on the customer side of things. Now customers are also producers *and* beneficiaries of value as well. Discussing free-to-play³⁷ or multiplayer games, Newell said that were more like a spectator sport than a feature film. Continuing, he said that:

...on the surface free-to-play games seem like a horrible idea. I will give my product away for free. Most people just sort of stop right there and go oh, OK, that's horrible. But in a free-to-play game what you're really doing is you're creating a lot of goods that are related to status, and affinity, and hierarchy. What you're creating is a whole bunch of goods there. And the marginal, the incremental value of an audience member is greater than the incremental cost of making that person an audience member. So typically what we see with a free to play game, which typically sounds like suicide, is that your audience size goes up by a factor of ten and your gross revenue goes up by a factor of three. So the cost of another audience member is fairly small just the cost of distributing those bits to

³⁷ Free-to-play (F2P) games base their business model on letting users play the game for free, but then encourage, through a variety of mechanisms, the purchase of items and extra content (Kaszor, 2012).

those customers, your profitability tends to increase a lot more than a factor of three.

(Newell, 2013)

Newell sees customers negotiate the values of free-to-play games from different angles here. They get the core experience of the game for free, but at the same time they might want to pay for status items. These items *only* have any meaning, most of the time, to other players. The value of a status item increases, in the eyes of the customer, if more people see it. It's easy to offer the game download for very little money to each player, and yet each player adds a lot of value to other players. In this way, value appears to be a subjective quality attached to the surface of the game.

Here are two kinds of value that all play a role in the narrative together: the value of labourers, and the subjective perceptions of value that *in turn* can be the basis for a purchase by a customer. Value then starts to mix together:

That's sort of puzzling and then we start seeing this thing occurring in lots of sorts of games, where we have markets and auction houses. See you have trade in goods between different customers. So you have this sort of appalling thing that happens where somebody will play your game for 20 hours a week for four years and then the value of all that goes to zero. So it's like you bought a house, and you made a bunch of improvements on the house, and when you moved to your new house, you have to start over. You get no value from the investment that you've made. Clearly these markets and auction houses are valuable. Or that the assets that you've accrued are valuable to you enough to justify this tremendous expenditure of your time, the game seemed to have this really whimsical notion about your property rights. We're all seeing this huge uptick in user generated content. (Ibid)

Value becomes a stand-in for wealth here, but in keeping with the general narrative of value generation by players themselves. Not only do players add value for other players and most importantly, for the developer: they also create value for themselves, and that value appears as a kind of wealth: an abundance of commodities or items in a game. Maybe a virtual house of some kind. Maybe a super rare in-game sword. The point being, wealth and property. They are a portion of the value at play.

If value (wealth) is being produced by playing these games, Newell starts to wonder what role Valve should have in mediating all this value creation. He expands on this:

So what we think is that you need some sort of market. Our job is to maximize productivity of users in creating digital goods and services. The markets will determine what the marginal value add of each of those activities are. The kinds of ways in which people create value and creativity and creating frameworks for that are gonna vary. You can't just define productivity in terms of shit you give to a customer because then you just miss the whole opportunity... if you're just raining hats onto your customers eventually you're going to suffer huge inflation and so on. So the way to think of it is that there's probably gonna exist a central, I'll just gonna use the term "economy" that gains are all sort of instance dungeons hanging off of that. And within a game I'll be able to create goods and services that I'll be able to exchange with other people in other games. Some of things i'll be able to do is go "Hey, I got this hat", and somebody else will get to say "I actually designed that hat" and that the person who designed that hat is gonna be a higher value person than the person who simply traded or acquired this asset in some other form. So you're gonna have a bunch of different ways that people are gonna be creating things.

(Ibid)

Here is where the concept of value forms more into a theme in discourse: it is both the labour that goes into creating a game, and the play that creates the wealth in a game that stands as a signifier to time or money spent playing. Here a marketplace quantifies that play-as-value, providing a price point to measure and take stock of it. Now a game isn't just a game — it's what Marx (1867) calls congealed value — a commodity itself (p. 130). Play is also capable of creating that value, so it's measurable as *value*.

This play-as-value is embodied, finally, in the way in which value comes back to Newell's discussion of how Valve understands Steam's role as a digital distribution platform:

Now there are reasons why you might want to create an artificial bottleneck, for example if you want to shift where relative value is towards controlling distribution which is great at creating artificial shelf space scarcity. But that's not really what we're trying to do.

Rather than having this curated store if we're thinking about this correctly is that it should really be a networked AP. There should just be this publishing model, and yes you have to be worried about viruses and malware, but essentially anybody should be able to publish anything through Steam. Steam is just a whole bunch of servers and a whole bunch of network bandwidth and if people are interested in consuming the stuff you're putting out there that's a good... a collective good is going to be there. Rather than us sitting between creators and consumers, we're gonna get as far from that connection as possible. So Steam stops being this thing where you call up Jason Holtman and yell at him to get your game on Steam Store and instead it just becomes a network API. So that's a consequence of our perception of where the industry is going. (Ibid)

This comes back to describing value in classical terms: as relative value. Keeping with how Marx (1867) describes relative value, as a kind of value that is imparted to capitalist firms if they have

specific advantages in the marketplace, either geographic, technological, or otherwise (p. 434). In essence Newell is suggesting here that Valve could use Steam to leverage its position, its relative advantage, a lot more aggressively, but instead they want to do something else. He claims that Valve is instead more interested in providing the infrastructure to capture value. The store is framed as a collective good, something that mediates all kinds of values. Left unsaid by Newell is that while they don't want to curate and drive up prices as much as they can, Valve is still collecting a decent service fee every time they help somebody sell a game. The source of these rents? The productivity of the users on the platform.

Productivity

Productivity is deeply entwined with value - but still distinct. When Newell begins to speak of productivity, it is similarly within the framework of classical economics, which described productivity as a function of relative value. Productivity is the output of a worker: high, low, or average. Technology, when applied to the work task, is designed to increase productivity, which translates into relative value (Harvey, 2011). Another way to increase productivity is to introduce new organizational methods. One such example would be Taylorist scientific management (managers at factories with stopwatches, highly structured instructions etc). Newell conceives of Valve's organizational method as a particularly potent way to increase productivity. Much of the quotes concern value above are relevant here. Newell said that:

Now one of the things that sorta helps people in the software space think about this is that its relatively easy to look at relative productivity of people in that space. So at IBM in the 1980s typical productivity would be a thousand debugged lines of code shipped per year. That was the metric they used for their median employee. Whereas when we were shipping *Half-Life 1*, one employee, Jean, was shipping 4,000 lines of code per day. So

there's pretty clearly, it's easy to see that there's, even if you're not arguing about whose lines of code were more useful, and it's pretty easy to see that Jean's lines of code were more useful than arguably somebody developing a 3270 terminal emulator for OS2, even if you're just looking at the raw production, it's easy to see that there's huge variation in productivity. (Newell, 2013)

This demonstrates that by finding the most expensive workers in the world, Valve's getting quadruple the productivity from one employee, benefiting the whole company. Clearly a rhetorical case for their strategy. But key for me is that the discourse of productivity extends beyond those employed at Valve. Newell elaborates later on:

To be really concrete, ten times as much content comes from the user base for *TF2* as comes from us. So we think that were super productive and bad ass at making *TF2* content, but even at this early stage, we cannot compete with our own customers for the production of content for this environment. So the only company that we've ever met that kicks our ass is our customers. We'll go up against Bungie or Blizzard or anybody, but we won't try to compete with our user base. Because we already know that we're gonna lose. Once we start building the interfaces for users to start selling their content to each other we start to see some surprising things. (Ibid)

Team Fortress 2 becomes a vehicle for productivity of a different kind: for user-created content. But it's important to remember that these items aren't just created by users and then distributed for free. These are items that are "dropped" in the game itself, and then available for trade and sale. Often times items that are dropped can be combined, crafted into other virtual items. These new items give other virtual items as rewards or can be sold and traded. The productivity Newell is talking about here is economically very real.

This spirals out: Steam is not just a store - it's a store that also *produces* values. Newell describes at length how some users on Steam were already making \$500,000 USD annually by creating content in *Team Fortress 2*. To handle this, Valve had to start to think about Steam as a platform for labour - not just play. He notes that for users in Korea, Valve had to create “equivalent of a W4 form for your players, to account for the virtual income they get” (Ibid). He then jokes that other things they had to start thinking about was if they should try to offset taxation on digital goods by increasing drop rates, or provide welfare for people in countries where drops are worth less. Now Steam is starting to resemble less a store, and more a government.

Later, Newell says that Valve's job is to “maximize productivity of users in creating digital goods and services.” What does this mean? Well it means providing the tools to monetize the value that's getting created. Productivity can only be measured here in terms of dollars and cents. Steam becomes a way to account for how in a game like *Dota 2*, popular players are getting special items created whose proceeds can then go to supporting the team they play for. Newell wants the productivity of professional esports players to be “rewarded” as much as possible, and Steam is a perfect platform to capture that value.

Distributing Productive Play: A Discourse

These three themes (distribution as commodity, value, and productivity) lock together as the discourse of distributing productive play. For Newell, Steam is the literal and figurative medium that links them together. He articulates a distinct vision of what a platform *does*: it distributes not only products, but value and productivity. And this vision of consumption and production is distinct enough from both the dominant discourses around distribution platforms right now (of, say, the iTunes Store or the Android Store) to make it worthy of note. The vision

here is that a platform isn't just a store: it's a whole social system, it's a base on which to build a complex economy.

I stress the spatiality of consumption, because it highlights the materiality and structure of the social system it exists within. In talking about shopping and consumption as something that happens in a town centre or a shopping centre, the ways in which goods circulate through spaces of commerce, via cars and trucks, distribution management systems and warehouses comes to mind. In digital spaces, shopping with an online platform doesn't need a car, and doesn't need a central location to go to. Instead the whole experience comes into the home (or the office, or the cafe), and becomes ready as soon as one needs it to be. It's ever present. Yet Steam also brings its social system with it: Newell's discourse shows that Valve envisions something more organic than merely a shopping centre. Using Steam isn't just about shopping — it's about community, and play, and productivity, and value. Shopping is never just shopping. It's just one part of a whole.

And for sure, there has been much heralding of the possible day when everybody is a prosumer of media. Alongside the ideal of the prosumer, there is a rhetoric of democracy: suddenly the consumer is adding to the conversation. Newell's discourse of Steam *distributing productive play* fits into this. The winners of this system will win big — they might even make five-hundred thousand dollars! But keep in mind what I discussed earlier: this is the many-to-few model of distribution.

Conclusion

What I showed in this chapter was the intersection of history and discourse that Steam occupies. I discussed the history of consumerism in North America as a way to understand the spatial and economic dynamics of production and consumption. This led directly into a history of

online platforms and the intersection with discourses of prosumption and digital distribution as the future of contemporary digitally mediated capitalism. Finally, I performed a analysis of Gabe Newell's speech about the importance of Steam historically to Valve. What it revealed is that Valve consciously thinks of Steam as something similar in purpose to a shopping mall without saying so. Malls distributed consumption while emphasising their social, community oriented character. Steam distributes productive play, while emphasising in its own discourse its social, community-oriented character. Play is now productive, and directly, measurably, economically so. At the beginning of this chapter I asked "Why does monopoly matter?" It's because the power over these platforms, on which so much relies, is held by Valve, and Valve wants to turn a profit. In the next chapter I bring this and the rest of my analysis to its conclusion: Steam as a space of control.

Chapter 6: Conclusion

Each chapter of this dissertation offered a partial perspective³⁸ on Steam, informed by Stuart Hall’s analytical framework of encoding/decoding. Specifically, I addressed the three elements that compose the encoding/decoding process at both ends of the circuit: the institutional/social frameworks of knowledge, the relations of production, and the technical infrastructure. Each chapter addresses one of these, while still situating each within the wider process and the interrelations between all three.

In Chapter 3, “The Steam Sale”, I addressed the ways in which the Steam platform ~~itself~~ affords action — what is possible within its technical infrastructure. In Chapter 4, “The Discourse of Digital Dispossession”, I addressed the discourse of those who used Steam, and how they interpreted the Platform actions when it came to controlling their hobby. In Chapter 5, “Space, Shopping and Steam”, I focused on the relations of production — where Steam fits into contemporary capitalism and the importance of space in understanding the rise of digital distribution. Taken together, I feel that all three case studies answer some important questions on the state of the interrelationship between work and play today.

I started this research by asking *how* Steam reshapes work and play in discursive and material ways, and each case study addresses that question. For example, at a technological level, Steam functions as a site of digital labour. I demonstrate how the very act of shopping during a sale is transformed into value-producing labour that can be quantified and sold to video game production companies as a “value-adding” activity on Steam. Steam walks users through the act of discovering their games during a sale, and in solving this discoverability problem, by situating a game in front of the eyes of a consumer, Valve can easily make the case that the fees they

³⁸ Here I am referring Haraway’s (1991) feminist epistemology of the partial perspective, which stresses that science has to be carried out from a variety of viewpoints and perspectives that are then consciously assembled, with special care paid to existing material inequalities and oppressions (p. 183).

charge are worthwhile to the publishers that elect to use Steam. Because users get to “use” Steam for free, they are producing themselves as an audience commodity. The affordances of the platform turn the very act of shopping into labour. Simultaneously, it presents this shopping as a kind of free-form play by incorporating (but not relying exclusively on) game-like affordances such as the digital trading cards meta game during sales promotions.

The discourse of the modding community is also shaped by what Steam affords its users. There are two discourses that I argue are in operation here which offer insights into work and play: the Discourse of the Community and the Discourse of the Consumer. The community’s obvious anger and frustration at the inordinate power of Valve to make unilateral decisions about their hobby is important. The work of creating mods (shown in the Discourse of the Community) comes up against the desire to play and consume (as evidenced in the Discourse of the Consumer). While both discourses desire some of the same things, there is still a contradiction here. Marx’s (1990) observations about the contradiction inherent in the peculiar nature of labour-power as commodity bears repeating:

The capitalist maintains his rights as a purchaser when he tries to make the working-day as long as possible, and to make, whenever possible, two working-days out of one. On the other hand, the peculiar nature of the commodity sold implies a limit to its consumption by the purchaser, and the labourer maintains his right as seller when he wishes to reduce the working-day to one of definite normal duration. There is here, therefore, an antinomy, right against right, both equally bearing the seal of the law of exchanges. Between equal rights force decides. Hence is it that in the history of capitalist production, the determination of what is a working-day, presents itself as the result of a struggle, a

struggle between collective capital, i.e., the class of capitalists, and collective labour, i.e., the working-class. (p. 344)

The kind of force that Valve exercises is subtle yet powerful. By changing the code unilaterally, they demonstrated how power and force are relative to their intended effects and goals. The reaction of the community to their power, however, was unexpected. That Valve relented, and discontinued the paid mods program in the face of widespread, highly public criticism, shows that class struggle can take many forms. The struggle isn't even necessarily conscious of its class content, even if the invocations of "community" as the driving force of push-back certainly suggest it.

Finally, analyzing the discourse of Valve CEO Gabe Newell, in dialogue with the spatiality of shopping online, yielded some interesting insights. Newell sees Steam as a technology that is an example of a new way of organizing and mediating production and consumption. Newell's discursive intervention encourages a new way of looking at platforms as a sort of an enlightened social space, a public good that produces "value" for customers and users alike. Materially, Steam is already a powerful technology reshaping the spatial and political economic relationship between those who simultaneously work and play.

Each of these case studies, and the historical context work I have prefaced each with, tracks the evolution of digital distribution platforms and the evolving nature of 21st century capitalism. The rise of Steam as a solution to a specific set of problems for Valve all show how the platform shapes and reshapes work *as a* dialogue with the struggles of those who use it. In each case, I've stressed the interactive quality of the process as dialectical: the play of materials, bodies, ideologies, and social systems co-creating the eventual result. Work and play appear through Steam as *regulated activities* within the structures of power and code.

Assemblages and Platform Studies

This study of Steam has added to a growing body of literature in the areas of research relevant to communication and culture: platform studies, digital labour studies, and game studies. All three of these areas intersect in my research, which was heavily influenced by T.L. Taylor's (2009) concept of the "assemblage of play". I wanted to produce work that spoke to Taylor's invocation to utilize a diverse set of methods to analyze the interrelation between the different nodes that play is enmeshed in. Taylor's assemblage is:

... constituted by the interrelations between (to name a few) technological systems and software (including the imagined player embedded in them), the material world (including our bodies at the keyboard) the online space of the game (if any), game genre, and its histories, the social worlds that infuse the game and situate us outside of it, the emergent practices of communities, our interior lives, personal histories, and aesthetic experience, institutional structures that shape the game and our activity as players, legal structures, and indeed the broader culture around us with its conceptual frames and tropes. (p. 4)

I don't think any one study can possibly hope to do justice to them all. Instead, I ran with the assemblage as a regulative ideal, something to keep in mind and strive towards. Taylor said that by thinking with assemblages, one could discover and analyze all sorts of interesting things happening in and around digital games, like "software modifications, between local (guild) communities and broader (server) cultures, between legal codes, designer intentions, and everyday use practices" (p. 4).

Software and sales, communities and dispossessions, space and shopping: in all of these I didn't see much room to analyze the play happening in the games moving through Steam. Some

games, like *Counter-Strike: Global Offensive*, for instance, deserve serious attention from the perspective of the ontological and epistemology of play that directly links their in-game affordances and play to the Steam Community Marketplace. Without things like distribution platforms, the digital play that sits at the centre of formalist work in game studies would not be possible. My case is that without work that foregrounds platforms and distribution — and the political economic nature of them — we can't really understand play and games.

It's also worth reiterating that research on platforms in game and media studies has, so far, focused extensively on hardware platforms like the Atari VCS (Montfort & Bogost, 2009), the Nintendo NES (Altice, 2015), the Commodore Amiga (Maher, 2012), the Nintendo Wii (Jones & Thiruvathukal, 2012), the BBC Microcomputer (Gazzard, 2016), and the SC-4020 (Patterson, 2015). One exception is Salter and Murray's study of Adobe Flash (2014) as a tool that reconstructed web browsers into a gaming platform. They have also focused less on the role of platforms as "the means of distribution" and more on their technical workings.

An example of this technical emphasis is the study of the Atari VCS by Nick Montfort and Ian Bogost (2009), which does a great job of describing how the electron gun of a cathode ray tube television interacts with the chipset of the Atari VCS. It doesn't, however, develop and deploy a concrete analytical framework to make sense of the interrelation between televisions and game platforms. It explains the intricate, engineering level details of a platform, yet the larger social environment isn't explained in detail. That's the chosen scope of the study, and I wouldn't fault the authors for it. That being said, I feel that analysis grounded in affordance theory and encoding/decoding can and does address the engineering affordances as well as the social context of platforms. These are tools that describe the technical workings of a platform while simultaneously situating and contextualizing that technology's relationship with society.

Ontology of Work and Play

In addition to conducting a multi-faceted analysis of the Steam platform, I also wanted to contribute directly to the scholarship regarding the ontological questions surrounding work and play. I discussed in the literature review the numerous theories of work and play, some of which are sociological, others idealist or transhistorical. In my case studies, I said very little about these theories, because I didn't think each case study individually invoked them enough to warrant it. Yet, with the completed case studies considered side by side, I feel that ontology should be discussed at some length.

My argument is that, for some time now, that obsessing about typological categories is useless unless these categories describe concrete material things and practices. What "is" and "isn't" a game, or play, should not hinge on a predetermined concept that is constructed entirely from hypotheticals. Instead I side entirely with those who have proposed a materialist conception of games and play, like T.L. Taylor (2009). Games and play are, and forever will be, products of the social and historical situations in which they arise. They are products of the assemblages they are enmeshed within: moments in the production and reproduction of society, and inextricably intertwined with the economic relationships of that society.

Driving this belief home for me is what I learned from each case study. For example, work and play appear as activities in flux. In my chapter on the *Skyrim* modification community, arises the issue that here "play" might just be what is commonly called a hobby, a task one performs outside of the workday for leisure. But this hobby is increasingly becoming more "work-like", as Kücklich (2005) and others have shown over and over again (Postigo, 2003).

So play here is whatever is discursively understood as play by those who actively engage in it. When it ceases to have that quality, it becomes something else. On the other hand, whatever

constitutes work or labour has nothing to do with subjective appearances. Materialist analysis shows that labour is that which produces value - the surplus of which is what is captured and realized as profit. Any act can produce value, regardless of its social utility or concrete expression. Everything I looked at on Steam, in one way or another, appeared to be activity that was or was going to be translated into labour that could be bought and sold, some of which could be captured by Valve. It comes as no surprise that Gabe Newell understood Steam's role in this, and understood that for the platform's continued success, it had to facilitate "value" creation wherever possible. As always, the applicability of Marxist categories is often showcased when capitalists describe their businesses in the same terms a Marxist would.

Games are whatever we want to them to be, but there is no avoiding the fact that as long as capitalism exists, they will be influenced and shaped by the demands of the drive to accumulate more capital.

Digital Labour & Platform Capitalism

The ontological questions discussed above, and the centrality of capitalism as a social and material force, leads me back to the growing field of digital labour studies. Digital labour as a distinct field comes out of the intersection of communication studies, media studies, labour studies, sociology, anthropology, and human computer interaction. In this sense, it's truly an interdisciplinary field of study, with a wide range of methods and approaches. Overall, they all try to zero in on the ways digital technology shapes and is shaped by the labour process.

Theoretically, much of the discussion of labour and digital technology came out of the debates around the shift in the global economy and the mass deindustrialization of North America since the 1970s. Dozens of books coming from the political right and left, both "orthodox Marxist" (Brenner, 2006) and "post-Marxist" (Bell, 1976), either postulated

continuations with the past or strict breaks. Much hay was made about the central role of technology and computers in this deindustrialization process.

Some, like Hardt & Negri (2001), even elevated those who used computers to a special status among the various classes in society. No longer was the worker the humble proletarian who would bring the new world (socialism) into being by taking control of the means of production. Instead, the Multitude — those united by their networked, digital condition — would rhizomatically, horizontally, challenge the Empire of capital. In the years following their thesis, Hardt and Negri (2005) toned down this widely criticized claim in their two follow-up books, *Multitude* (2005) and *Commonwealth* (2011), trying to mellow out their more bombastic claims such as the immanence of resistance, especially as the anti-globalization movement fizzled as a coherent force.

In more conservative quarters of sociology, theirs was a well-worn argument, going back to Daniel Bell's (1960) thesis in "The End of Ideology", and his later work *The Coming of the Post-Industrial Society* (1976). A more analytically rigorous but still rather conservative theory was proffered by Manuel Castells (2009) in *The Rise of the Network Society*. Richard Florida (2014) operationalized these theories into neoliberal boosterism, creating a new sociological class (the "creative" class) that would be the prime engine of urban and state prosperity.

Without a theory of a "new" kind of industrial and economic order, there is no basis upon which to craft such a privileged subject. Much of power of this "creative" class was tied to the idea that what made them particularly valuable was that they either used computers to manipulate symbols or perform semi-skilled or high-skilled forms of labour. One was a member of this creative class by being a nurse or a game/graphic designer. At the core of this argument was the notion that cities and national governments should politically prioritize every effort to

promote industries that generate these creative class jobs. I wrote about the intersection of this in my article “The Toronto Indies: Some Assemblage Required”, showing how the discourse of nationalism and creativity intersected perfectly in cultural and industrial policies that were created to support and grow the digital games industry in Ontario (Joseph, 2013).

The economic crisis of 2008, and the subsequent years of economic stagnation that followed, put to rest the idea that the future of capitalism was to be found in the prosperity of technological innovation, even if its boosters pretended that the crisis was down to some other problem. The data showed that technology was actually accelerating wealth transfer upward, even as the poorest continued to suffer while middle class wages stagnated.

Even without the crisis, there seems to have been for some time a strong materialist/new-materialist theoretical strain of research in media studies that treated the crisis as a call to refocus work on *labour*. This is why throughout this dissertation I so often stress the work of Dallas Smythe, Christian Fuchs, and T.L. Taylor on the intermix of labour and play much. These researchers have focused on digital labour as a new instantiation of the same relationship labour has always experienced under capitalism, but materialized in concrete ways that are new and distinct.

My study of Steam contributes directly to the growing body of literature that explains both how labour power is captured and commodified by digital technologies, and how these digital technologies fit into the wider economy. Steam captures labour in its marketplace, in its modding community, in its advertising and in its store. I’ve also shown how Steam functions as a technology of control: it is most certainly part of a “higher order” of production (Deleuze, 1992).

As I discussed in the introduction, some, like Nick Srnicek (2017), have taken to calling this “platform capitalism”. If anything, digital technologies and the labour relationship inherent

in them, extend the transfer of wealth upward in ways classically theorized by Marxist economics, and further entrench control in the hands of platform owners. Platform capitalism is not a qualitatively higher form of capitalism on display with technologies of digital labour. Instead it is just the quantitative extension of capital into previously un-colonized parts of our lives. It does this by spreading its reach through platforms on our computers, smart phones, workplaces, and elsewhere. I've shown how Steam is merely one example of this.

Opportunities for Future Research

In the end, I feel like I've barely scratched the surface of how Steam works. I looked at the *discourses* of both the people who created and those who use Steam. I identified affordances on the user-side (but only a few, not an exhaustive list). I situated the software within the history of the games industry and the wider economy, as well in the specific history of retail, yet only briefly, and not as in-depth as a full historical investigation would have. In other words, this dissertation is what I set out to do: a political economy of a platform from a variety of angles.

That means there's a lot of room for future research on Steam. Prior work on the platform was always tangential to it. For example, Moore's (2011) research on the affective economies of collectable hats in *Team Fortress 2*, or the management-focused analysis of digital distribution platforms by Jöckel et al. (2008), which studied the now-defunct GameTap. Research actually focussed on Steam is needed because it has grown into a monopoly that continues to outlast and outperform competitors, while continually expanding its features, and therefore its affordances. There are three areas of interest to me that I think would be particularly fruitful for further research: the Steam Community Marketplace, Steam Greenlight, and the spread and regulation of the Steam API. In next section I will briefly outline my reasons for why these three areas could be so potentially rewarding for future research.

The Steam Community Marketplace

Early on in my research I wanted to focus on the Community Marketplace, specifically to understand exactly how the commodity creation works, and what the dynamics of trading, buying and selling of hats/weapons and in game items are. However, it soon became clear to me that a proper investigation of the marketplace would take a highly disciplined approach with a clear methodology that I wasn't ready to formulate and apply. Specifically, I felt that if I wanted to do justice to the object of study, I would need to immerse myself in the culture of buying and selling, and most importantly, find and interview others who were doing this.

The Community Marketplace is a tricky and complicated system, and my interaction with the marketplace came down to getting weapon skins in *Counterstrike: GO* and selling them for as much money as possible. I needed to find those who would be following the market and trying to make savvy deals and engage in arbitrage. I knew these people were out there, but I didn't know where. The angles to take on this are numerous. Certainly digital labour is one angle, but it would be worth interrogating the early research of digital economists like Castronova (2001, 2005), to see how these new markets operate and whether their operation has conformed to the predictions set out.

It's important to remember that Yanis Varoufakis was recruited by Gabe Newell to work at Valve as their economist-in-residence to help them figure out how to regulate the Steam Community Marketplace (Cook, 2105). After a year, Varoufakis was recruited by the new Greek SYRIZA government to negotiate directly with the European Union about the government's debt payments. Here I saw the intersection of theory, international capital, and digital marketplaces. One of Varoufakis' never-implemented solutions was to create a virtual currency in Greece (Mason, 2015), which might or might not have been a result of his time at Valve.

Steam Greenlight

Steam Greenlight was a service launched by Valve in 2012 that intended to act a flood-gate of sorts for the entry of new games onto the Steam platform (Valve, 2012b). It worked like this: if a game designer who wasn't a known quantity in the games industry wanted to sell and distribute their game through Steam, they would have to submit it to Steam Greenlight. Through the Greenlight service volunteers would play the games until they could review and rate them. If a game garnered enough positive ratings, it would eventually be "greenlighted" and approved for distribution. In effect, the goal was to control the flow of games by relying on community labour to vet a game's quality.

In practice, this system was anything but perfect, and often turned into a popularity contest. I saw lots of discussion in the enthusiast press about the woes of trying to use Greenlight, and witnessed independent game developers struggle to receive enough positive votes for their games to get them onto the full platform. It seemed imperfect at the best of times. And this doesn't take into account that politics played a big role here. During the rise of GamerGate, the proto-fascist and misogynist "anti-corruption" campaign, it's quite likely that games created by women who were vocal feminists would have been subjected to mobs down-voting their games on Greenlight (Grayson, 2015b).

On June 6th, 2017 the service was discontinued, with Valve declaring they wanted to find a better way to open up the platform and make even fewer calls when it came to curating its content (Sarkar, 2017). There's a distinct echo of Newell's comments on the future of Steam in my chapter on the space of the digital store. Valve (2017a) said they were going to replace Greenlight with a system more similar to the Apple App Store: a one-time or annual sign-up fee that is high enough to restrict some applicants, but low enough to admit promising independent

designers. It's unclear if this will have the desired effects, or if a flood of cheap and poor-quality games will be the result.

To mitigate the possibility of an inflow of low-grade games, Valve recently introduced a feature to incentivize Steam users to become "Explorers" of games and to review them. It's pretty clear that mobilizing the user base to sift through thousands of games is motivated by solving a labour problem: Valve doesn't want to pay its own employees to do this, so creating incentive structures to get users to do this for free is greatly preferable. That most of the games played are likely to be poor means that Valve will have to find incentives that actually motivate people to be "Explorers", as they're less likely to be driven by the rewards of gameplay. It remains to be seen if this will work. I expect, however, other platforms to follow suit. Quality-control is an evergreen issue for these platforms, and is most certainly related to the "discoverability" problem.

The Steam Web API: The Bizarre Case of Gambling Rings and Scams

Two things have happened in the last few years related to Steam that I found fascinating and believe worthy of more extended scholarly attention than I have time for here. I found out about the first from an article in Bloomberg (Brustein & Novy-Williams, 2016) discussing the rise of online betting on competitive *Counter-Strike: GO* matches. What made it stick out, beyond the betting itself, was that a lot of bets were being made in the in-game items: weapon skins.

These weapon skins are usually tradable and sellable in the Steam Community Marketplace, so I assumed that they must somehow be put into the hands of trusted agents (in escrow) until the match was complete. I was surprised to find out that this wasn't the case. Websites like csgolounge.com had created tools and systems to allow for the trading, and betting,

of in-game items that were completely outside the control of Valve. This was made possible because of the Steam Web API, a plugin that would allow users to create ways of interacting with Steam user account inventories on third-party, unofficial websites. Suddenly items that could be worth anything between \$0.01-\$500.00 on the Steam Community Marketplace were being bet on games. Much of this could be considered illegal, if it wasn't for the fact that all the money that is used on the Steam Community Marketplace is functionally considered by Valve to be electronic company scrip (i.e. once you put money into Steam, you can't take it *out* of Steam).

The second event that really caught my attention was an extension of this: a well trafficked YouTube production company (h3h3productions) produced a video that exposed and summarized a small conspiracy by Youtube personalities to both promote and simultaneously own a website that specialized in *Counter-Strike: GO* weapon skin gambling (h3h3productions, 2016). The scam worked like this: the two YouTubers would play *Counter-Strike: GO* regularly, and then make videos showing them going over to csgolotto.com to place some bets (at this point, the gambling mechanics on these websites had reached the sophistication of a random lottery). Many videos showed these people winning huge bets, pulling in thousands of dollars of weapon skins (Grayson, 2016).

It turns out that both of the Youtubers were also owners of csgolotto.com, meaning the whole thing was essentially a self-promotion gimmick. It was, at best, brazen fraud. The Youtubers were soon sued (Grayson, 2016) but the fallout was enormous, in part because it highlighted the interlocking of the socio-technical infrastructure of Steam and Youtube. This intersection is worth studying in greater detail, especially in the light of Postigo's (2016) research on the Youtube end of streaming and video culture. Here is a great example of judicial structures,

platforms, capitalism, and games all converging at a neat intersection. With the right resources a very comprehensive history and analysis of this could be done.

Study Platforms Now

At the 2017 annual meeting of the American Association of Geographers, I presented on a chapter from this dissertation, expecting (naively, I now realize) that I would be an oddity at a Geography conference: a scholar from communication and cultural studies talking about the spaces of the internet and games. Instead I realized that there were hundreds of geographers attending, and discussing at length their research on platforms like Airbnb, Uber, and Zillow. There were long discussions about Facebook, Tumblr, and Twitter. There were presentations of ethnographies, maps, and methodologies. Geography was awash not just in digital but in *platform studies*.

Hundreds of us were all applying our methods and analytical frames to make sense of what was going on at this stage of capitalism. Based on what I saw, everybody was coming to the same conclusion: enclosure and control are being propagated by platforms. For me, this was a rejuvenating experience, finally emerging from writing my dissertation to realize that while I'm still immersed in the unending process of learning, I'm on the right track. The best way to understand these technologies is to approach them from so many angles, so many *situated* positions, that we can arrive at some broad conclusions about them, and do our best to encourage solutions to the quandaries that lie at the heart of our economies and social structures.

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