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The Labor of Play: the Political Economy of Computer Game Culture

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THE LABOR OF PLAY: THE POLITICAL ECONOMY OF COMPUTER GAME CULTURE

by

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ABSTRACT

THE LABOR OF PLAY: THE POLITICAL ECONOMY OF COMPUTER GAME CULTURE

by

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This dissertation questions the relationship between computer game culture and

ideologies of neoliberalism and financialization. It questions the role computer games play in

cultivating neoliberal practices and how the industry develops games and systems making play

and work indistinguishable activities. Chapter 1 examines how computer game inculcate players

into neoliberal practice through play. In chapter 2, the project shows Blizzard Entertainment

systematically redevelops their games to encourage perpetual play aimed at increasing the

consumption of digital commodities and currencies. Chapter 3 considers the role of esports, or

professional competitive computer game play, to disperse neoliberal ideologies amongst

nonprofessional players. Chapter 4 examines the streaming platform Twitch and the

transformation of computer gameplay into a consumable commodity. This chapter examines

Twitch's systems designed at making production and consumption inseparable practices. The

dissertation concludes by examining the economic, conceptual, and theoretical collapses

threatening game culture and the field of game studies.

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ACKNOWLEDGMENTS

Finally, I dedicate this project to my wife, Kaitlin. Without her, this would not have been possible. Her support throughout this process has been unwavering. At every step, she has ensured my success; thank you for all that you have done and allowed.

Introduction

In 2014, during one of many personal returns to *World of Warcraft* (Blizzard 2006), I was regularly completing daily quests, tasks the game would set forth on daily basis offering repetitive rewards. I knew when the quests would reset, the most efficient path to travel from one quest to another, and which ones were not worth my effort or energy. *World of Warcraft* taught me how to efficiently complete quests, extract maximum value, and organize my life around completing these daily quests to minimize their impact on my non-game time. This was not how I used to play games; I did not schedule my life around completing quests or missions in video games. Games from the earlier years of this century, at least in my experience, were more easily contained, less insistent and exorbitant in their demands.

Game design and game play have adjusted to encourage and entice constant and endless habits of play. In many of today's most popular games there are no real endings; leaving the game brings a sense of lost opportunity and unrealized achievement. This early encounter with what I now identify as fun subprime, or fun$, characterizes much of the changes I see contemporary computer games having on players through a proliferation of economic activity aimed at training players for professionalized play-as-work.

I conceptualize play and games as objects that require "nontrivial effort" to traverse (Aarseth 1). Games require effort, work, and commitment from players to enact; games cannot exist outside of the player's effort. As systems, Jesper Juul describes games as "half-real" real in that they "consist of real rules…and winning or losing is a real event" and having those real events exist in fictional worlds (1). But games are not theoretical constructs, they are products and commodities (commodity systems) with very real economic footprints. The computer games discussed in this project consist predominantly of AAA ("Triple A") games, made by studios

with development budgets sometimes exceeding 100 million USD. In other words, these are games designed to generate very large returns on very large investments.

This dissertation aims to put an end to the notion that games can even exist purely in imaginary worlds; when our game actions have financial and ideological consequences, they no longer can appear contained in fictional or fantastic spaces. In other words, games for this project constitute systems requiring effort to enact, with specific conditions set out for success, failure, effort, reward – and crucially, an encompassing culture that promotes ever more intense commitment to the game. Games of this type thus have tangible consequences for play and players.

With this project, I aim to understand computer games and the economic action they produce from an avowedly Marxist perspective. I examine a number of critical economic principles throughout the project, and all of those concepts are supported by my understanding of capital. Marx considers capital to be associated with the pursuit of value. Marx declares "capital is money, capital is commodities" (*Capital Volume 1* 255). The form capital takes does not matter for Marx because "value is the [agent] of a process in which, while constantly assuming the form in turn of money and commodities, it changes its own magnitude, throws off surplus-value from itself considered as original value, and this valorizes itself independently" (*Capital Volume 1* 255). In this project, capital takes forms from virtual currency to digital commodities, but value as the agent in the process is integral in all cases – as it was to my experience with *World of Warcraft* in 2014. In that moment of play, I was led to extract and produce as much value as possible out of my play time – a logic that underlies my approach play and its relationship to capital. What follows is of necessity a complex process involving several subjects and domains of design and action. I have divided the work into four principle chapters.

Chapter 1 serves as the theoretical foundation for the entire project and situates this project game study within a broader historical context of economic theory, particularly theories of neoliberalism. This chapter builds the theoretical apparatus used to investigate how computer games inculcate and train players in neoliberal practices; I call this concept **fun subprime**, or *fun$*. Fun$ reflect a transformation of computer games to encourage consumption and production from players. As the chapter progresses, I analyze the emergence of fun$ across real-time strategy in *Offworld Trading Company* (Mohawk Games 2016) and real-time stock trading on the Twitch channel's *StockStream* (Cheddar 2017). *Offworld Trading Company* makes economic action and financial management essential to gameplay and reflects the process of neoliberal inculcation emblematic of fun$. *StockStream* is an interactive viewing experiences where spectators can vote on how to invest money on the stock market and reflects the convergence of platforms and services enabling the proliferation of fun$. This chapter offers a theoretical model aimed at understanding how computer games transform players through a constant engagement with money and markets.

Chapter 2 considers how one game developer, Blizzard Entertainment, have transformed their games to construct play as a profitable practice. I begin with Blizzard's attempts to integrate real-money transactions in *Diablo 3* (2012) and show how the failures of that system transformed the economic participation possible in the rest of Blizzard's games. This chapter considers changes made to increase the monetization of *World of Warcraft* (2004) through the inclusion of microtransactions and a Blizzard-specific currency, the WoW Token. After examining the transformations to *World of Warcraft*, I consider how the WoW token affords Blizzard the opportunity to enact an intertextual economic experience across its other games and develop systems aimed at encouraging productivity in its players. *Hearthstone* (2014), *Heroes of the*

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Storm (2015), and *Overwatch* (2016) provide Blizzard's players an outlet for their surplus currency. As Blizzard develops an intertwined, integrated economy, it creates a myriad of virtual goods for players to unlock through loot crates, or items contained randomized virtual goods. This chapter ends by considering a potential crisis created by the proliferation of loot crates and how loot crates have invited the imposition of government regulation upon the game industry.

Chapter 3 examines esports, or professional competitive computer gameplay, as an economic apparatus of computer game culture. Rather than examining the whole of esports, I investigate MOBAs, or multiplayer battle arenas, and the structures made by developers Riot Games and Valve. This chapter situates recent developments in esports within a larger framework of critical economic thought. These developments include the transformation of esports leagues to reflect the entrenched structures of American professional sports leagues. As esports attempts to attain increased legitimacy from investors, the framework of permanent teams invites increased investment from outside game culture and aim to open up esports to a larger array of economic participation. I explore this phenomenon in relation to Marxist and Neo-Marxist interpretations or class and power relations. I examine the role of teams, developers, and players within the larger apparatus of esports. The chapter concludes by showing the transformations enacted by esports to construct all players as professional players.

Chapter 4 considers the relationship Twitch.tv (or more familiarly just Twitch), a platform for broadcasting live computer gameplay, among other things, for viewers. The rise of Twitch begins an important phase in the unfolding history of fun$. In this chapter, I consider how Twitch operates as a tool to produce commodities for streamers, users broadcasting their live gameplay, and how in its relationship to streamers Twitch aims to control game culture. Understanding Twitch as a means of production shows how Twitch remakes play into an act

aimed at producing commodities. In the process of producing commodified play, Twitch enacts

systematic control over streamers, viewers, and game developers. The control enacted by Twitch

relies on creating consenting participants and establishing a hegemony over play. Streamers

adhere to strict guidelines to become profitable and build communities aimed at generating

growth. The chapter concludes by examining how fun$ and Twitch transform the subjectivities

of its users.

After these four chapters, I offer a conclusion speculating on the implicit sub-theme of

fun-subprime – the looming possibility of collapse. I take this possibility both figuratively and

literally, and apply it not only to the domain of commercial games, but also to academic criticism

and culture more broadly.

Chapter 1: Building Theoretical Tools for Games and Neoliberal Play

With this dissertation, I examine how computer game culture and contemporary economic practices interact throughout the various technical and cultural systems found in games. This project considers the changing notions of work and play, an inculcation of neoliberal attitudes with respect to human value and the self, and in particular, an increased emphasis on money, currency, and structures of labor within ludic activity. Notably, I seek to examine how play and work become complementary and intertwined activities, with play increasingly being marked by its potential profitability.

As this project progresses, it reconsiders a new relationship between work and play; while these have historically been seen as separate practices, this project considers how they are increasingly indistinguishable within the context of computer game culture. While many scholars have worked to erode play as an activity isolated from other practices, there still seems to be a lingering distinction. While this project considers the various economic and cultural systems found in computer game culture, it is at its core an exploration of the transformation of work into play as brought on by 21st century neoliberalism, which increasingly sees play increasingly orient itself around markets and profit. The project will highlight how play reinforces productivity for a variety of agents including players, developers, and investors. At perhaps its most provocative point (Chapter 4), this study will suggest that all game play mediated by information technologies is rapidly becoming professional labor.

This project constructs narratives that help account for how games and financialization intertwine. In essence, two shifts in economic practice and ideological tendencies provide potential answers for understanding how games relate to economic thought. The first account is to consider how economics, and in particular finance, has become increasingly reliant on

computers and networked technologies. Philip Mirowski shows the historical transformation of

economic practice via technology. Since World War II, Mirowksi argues, economics has

transformed into a "cyborg science" (6). There are six qualities defining the cyborg sciences: a

reliance on the computer as a paradigm "for everything from metaphor to practicality;" breaking

down the separation between human and inhuman; ending the "distinction between reality and

simulacra;" importing the concepts of disorder and order from thermodynamics, information,

memory, and computer as explanatory tools; and finally, intentional design: "the cyborg sciences

did not simply spontaneously arise; they were consciously made" (Mirowski 17). With

transformation of economics into a cyborg science, Mirowski suggests "the economic agent [is

now] a processor of information" (7). For Mirowski, economics increasingly concerns the

trading and manipulation of information about commodities rather than the physical

commodities themselves.

In other words, over the past sixty years, economics has increasingly become reliant on

the technological affordance of computers, making economic activity more engrained in

informational and virtual settings, and less aware of or interested in material conditions. The

move toward derivatives as a prevalent commodity of 21st century finance represents this

transformation of economic activity as the manipulation of information. Max Haiven defines

derivatives as "intricate commodifications of risk made up of 'securitized' fragments of

potentially tens of thousands of separate speculative investments and bets" (*Finance as Capital's

Imagination* 108). Derivatives are commodities of information and risk. Derivatives distance

themselves from the physical commodity they may represent via fragmentation. As Donald

MacKenzie notes, derivatives have been traded since the 1970s but saw their peak in 2006 with a

market value of $84.4 trillion. Many scholars argue about what derivatives represent, or perhaps

more importantly, what they do not represent. Randy Martin suggests "derivatives remove reference from the commodity. They allow debt to serve as a productive medium from which countless commodities can be spawned" (*An Empire of Indifference* 25). Martin explicitly ties derivatives to debt and recognizes the distance derivatives provide from material commodities. Here, debt becomes synonymous for the risk found in Haiven's definition. In *Capitalism with Derivatives*, Dick Bryan and Michael Rafferty suggests derivatives represent "a commodification of risk [and] are a form of calculation and market logic that is intrinsic to the logic of a capitalist economy" (8). For them, derivatives reformulate consumption, concepts of ownership, nature of money, in the process augmenting our exposure to crisis. While derivatives fundamentally alter capitalism, they do not reference the commodity; instead they seek to make risk and the chaos of markets a or perhaps the commodity of 21st century finance capitalism. Martin and Bryan and Rafferty ultimately argue that derivatives reference something other than material commodities, and in many ways, rather than being virtual commodities, derivatives are informational ones.

In contrast, Donald Mackenzie suggests, rather than simply rejecting the immaterial nature of derivatives, financial derivatives "abstract as though they appear, are particular material configurations" (357). He argues "one should not reduce materiality to physicality alone," and financial markets "involve physical objects, technological systems and human bodies, but also the legal systems, cultures, procedures, beliefs and social relations" (357). It is not that derivatives reference a physical commodity; instead, derivatives reference the material conditions of financial markets. Derivatives connect to the larger array of systems intersecting economic activity. Derivatives commodify information in a way that is integral to financialization. With their particular relationship to information, I see derivatives indicative of the action found in contemporary computer games. Ultimately, these conditions concern the

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trading and manipulation of information. In essence, computer games have always invited us to play with information. "Play" is a word with many meanings.

In computer games, players manipulate information; and while not explicitly tied to markets, play within games recreates interactions with information that invoke the same conceptual basis as derivatives. Recognizing "derivatives [as] financial instruments that derive their monetary value from other assets" offers a parallel logic for how players conceptualize play as profitable (Lee and LiPuma 204). For instance, daily play in *World of Warcraft* is increasingly designed to reward players with assets perceived as useful and valuable. The value of play is related to the value of items gained through players' engagement on the system. Potentially, this practice reflects compensated labor, but it also ties the value generated through play to other assets. While not formally identical with derivatives, computer games create a culture of understanding value in relation to other assets similar to the logic of derivatives.

The other narrative this project formulates is ideological. I examine how neoliberalism changes and potentially manifests in contemporary computer game culture. Haiven defines neoliberalism as "a meta-ideological project…that represents the frantic combustion of social values into economic value, the pathological digestion of spheres of 'relative autonomy,' and the subordination of ever more aspects of social life to the dictates of the market" ("Finance as Capital's Imagination" 100-101). For Haiven and others, neoliberalism represents the transformation of all human activity into economic activity. Ultimately, neoliberalism seeks to reconfigure all aspects of life in relation to the market or capital. Viewing computer games though this framework allows computer gameplay to be interpreted and understood in relation to the market. Seen through neoliberalism, computer games, these supposedly innocent

entertainments, reveal themselves to be agents for advancing the neoliberal goal of sublimating all aspects of human life - even play - to the logic of markets.

Reconciling the relationship between between play and work is essential for the theoretical contributions of this project. Viewing computer game play as work recalls the postmodernization of the economy suggested by Michael Hardt. This transformation entails a shift toward informatization, which makes immaterial and affective labors the "very pinnacle of the hierarchy of laboring forms" shifting from industry to service jobs (90). Hardt defines "immaterial labor" as any form of labor that produces an immaterial good like information, services, knowledge and communication (94). He suggests affective labor produces "social networks, forms of community, [and] biopower" (96). Hardt's definitions clarify what these affective and immaterial activities produce, and while he provides some examples of various acts producing capital, he does not provide much insight into rethinking what is now work. Writing on the rise of immaterial labor, Maurizio Lazzarato identifies the transformation of the labor market. Similar to Hardt, Lazzarato defines immaterial labor as "the labor that produces the informational and cultural content of the commodity," but he places emphasis on the two types of content in his definition (132). First, informational content of the commodity "refers directly to the changes taking place in workers' labor processes in big companies in the industrial and tertiary sectors, where the skills involved in direct labor are increasingly skills involving cybernetics and computer control" (132). Second, the production of "'cultural content' of the commodity involves a series of activities that are not normally recognized as "work" — in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes…public opinion" (132). For Lazzarato, immaterial labor transforms both the kinds of activities done and the kinds of commodities produced. With Hardt and Lazzarato in

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mind, this project can more readily understand the potential interactions that exist between work and play.

Playing with Marx

A critique of the political economy of game culture requires interacting with Marxist thought. Graeme Kirkpatrick, Ewa Mazierska, and Lars Kristensen suggest Marxist ideals struggle with digital games because games participate in a "new form of capitalism in which digital technologies form the dominant infrastructure" (118). Their observation indeed provides a major tenet of this project. For these writers, digital games are aesthetic objects to be seen through Marx's interpretation of alienation. They suggest games appear "ambivalent between authentic art and manipulative commodities" (119). Their perspective on Marxian theory and games sees games as instances of technology that bring about change, but they do not see concerned with the possibility that games represent a space where players perform labor. Games no longer simply remake play to look more like work, but increasingly, games are a site where labor occurs.

Multiple examples can be offered by way of illustration. The most prolific is the practice of *gold farming* in massively multiplayer online roleplaying games. Gold farming operates as an umbrella term for gamic labor where players illicitly sell virtual goods for real-world currency; predominantly, players convert real-world into the virtual currency of their chosen game. The labor of "farmers" produces and sells "virtual goods such as weapons, garments, animals, and even their own leveled-up avatars or virtual bodies to other players for real-world money" (Nakamura 188). Lisa Nakamura examines the racialized implications of gold farming practices in "Don't Hate the Player, Hate the Game" and critiques game studies misunderstanding of labor (Nakamura). She contends that current work on digital games has not adequately characterized

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the labor being performed by gold farmers because "the economics of gold farming are usually discussed in the scholarly literature of their negative impact on the world of leisure players" (189). Nakamura aims for a more complete understanding of the "political economy" of computer games by "following the money" (190).

Gold farming represents the equation of play with labor in an early and fairly stark form. Following the money into more subtle forms and practices, this project takes on an expanding political economy with an increasing number of practices that exploit game-based labor. Later discussion will consider professional competitors in *esports* and amateurs who broadcast their play on services like Twitch and YouTube. Attention will also be given to structures within multiplayer games that configure play as the manipulation of in-game markets and currencies. In all these examples, computer games simultaneously operate as tools to perform labor and sites where labor occurs. Understanding these intertwined possibilities is key to critique made through this project.

In the transformation of materials into the commodity form, Marx suggests the commodity "transcends sensuousness," or in other words, it ceases to simply be representative of the materials contained within (*Capital Volume I* 163). The commodity "evolves out of its wooden brain grotesque ideas, far more wonderful than if it were to begin dancing of its own free will" (Marx *Capital Volume I* 163-164). In this metaphor, Marx shows how commodities reflect aspects other than their physical qualities. I want to understand games through a similar lens of transformation. In other words, games have stopped simply being games; games do not simply exist on a spectrum between art and commodity. As games increasingly transform into services and spaces, their scope and function – we might say, their *lifespan* as commodities – changes. Just as Marx's table may have danced, 21st century computer games also take on an uncanny

purposiveness, ensnaring players in systems designed to prolong engagement. Commercial games are no longer bound by simple narrative closure; they are meant to lumber on in endless consumption, perpetually sustaining the attention and effort of players. In other words, games as spaces can be seen as a 21st century factory as well as a commodity.

Computer games become instruments, machines, and spaces that allows players to inhabit and perform continuous labor. Writing about the labor process and machines, Marx suggest machines offer "objectified labor [confronting] living labor within the labor process" and make living labor a "living accessory" to machines (*Grundrisse* 693). The idea of the machine feels more tangible when considering the factories of industrialization and not 21st century computer games. However, this project understands games as partially fulfilling the role played by material mechanisms (machines) in the industrial labor process. In this view players become a living accessory in the labor process that is presented as play. Games, using systems of articulated reward called *gamification*[1], mask the labor being performed, making it appear as entertainment or leisure. This project attempts to disrupt this pretense, understanding a wide range of playful practices that constitute labor.

Rethinking "fun"

As this project builds a theoretical apparatus to understand the relationship between financialization, play-as-work, and computer games, framing this analysis in relation to previous work on play will help understand the transformations made to play through financialization, neoliberalism, and gamification. For Alexander R. Galloway, video games are "cultural

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[1] Gamification has an "arguable blueprint" in the social and mobile source foursquare, which implemented a series a "game-like design elements" to motivate users (Walz and Deterding 3). These elements include points, badges, leaderboards, and rewards. Gamification exists as a means to motivate and encourage use of a platform or system by making it appear more like a game.

object(s), bound by history and materiality, consisting of an electronic computational device and a game simulated in software" (1). They are also actions and only "exist when enacted" (Galloway 2). The act of playing games is this action, and Galloway defines games as "a massive cultural medium involving large number of organic machines and inorganic machines" (2). Games and play are intertwined in larger forces shaping the understanding of each other. Without actions or play, video games are inoperable software, because at some point, the organic machine known as the player must enact the action of the video game. For Galloway, the implication of these actions and interactions between player and machine bring them closer together. He suggests "time spent playing games trains the gamer to be close to the machine, to be quick and responsive, to understand interfaces, to be familiar with virtual worlds" (70-71). Gaming as a practice unites players and games through play; it creates a fluid relationship where they can both influence each other.

As will be discussed in greater detail below, considering a characteristically financialized game, *Offworld Trading Company*, illuminates how players gain some rudimentary understanding of functions and interfaces of finance. The constant engagement with stock and commodity prices in that game represents some degree of training in the game's internal economics. As players gain a better understanding of how the market of *Offworld Trading Company* operates, they slowly acquire potential knowledge about finance and investments generally. The gameplay of *Offworld Trading Company* delivers what Galloway, writing about earlier games, calls "contemporary political realities in relatively unmediated form" (Galloway 92). For Galloway, video games "solve the problem of political control…by making it coterminous with the entire game, and in this way video games achieve a unique type of political transparency" (Galloway 92). As *Offworld Trading Company* displays economic play, it also

seeks to represent the economic control enacted by mechanisms of finance. Gameplay in *Offworld Trading Company* consists primarily of manipulating commodity markets with goal of lowering stock prices of opposing companies; lower stock prices allow for hostile takeovers of opponent companies. The game does not appear interested in nuance or subtlety when it concerns economic systems. *Offworld Trading Company*'s obviousness and blunt gameplay of manipulating commodity markets reaffirms the transparent approach video games deploy when rendering political control as economic control.

Galloway offers one stance on how players relate to games through their play-as-work by rendering the game as a system of control. However, Galloway seems overly interested in the functions of the whole system. Ian Bogost offers another useful perspective, reframing what it means to study elements of play within a system, through his notion of *unit operations*. Bogost defines unit operations as "modes of meaning-making that privilege discrete, disconnected actions over deterministic, progressive system" (3). Introducing this concept allows Bogost to shift attention to minute, repetitive actions within expansive, densely articulated systems. While Bogost's approach represents a move away from systemic operations, neither can permanently escape the other. Ultimately it is impossible to fully disentangle the unit from the system in which it operates, but unit operations help narrow the scope of study for gameplay. Looking at units allows a Bogostian critic to understand the networks that operate within the system and recognize the relationships developed between the various nodes in the network.

Bogost suggests that many of the cultural and historical assumptions about games seem flawed. He argues contemporary culture views games as "amusements, distractions that have no place provoking thought" (*Unit Operations* 115). He identifies two forces working against games as a force for change. The history of "their separation from the material world" and that fact that

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"videogames inherit a mass-market entertainment culture whose primary purpose is the production of low reflection, high-gloss entertainment" (117). Bogost wrote these remarks in 2006, and to some extent, his claims have been complicated, if not invalidated, in the intervening years. Yet Bogost's critique of video game perception remains relevant because it recognizes the problems that arise when play is equated with fun. He argues "the rhetoric of fun [is] the superficial conveyance of capital," and it implies "a kind of accounting, a return on investment for the player" (119 and 121). For Bogost, this alternate type of fun is to be called *fun'* or fun-prime, "which entails… social, political, and revolutionary critique" (119). For Bogost, games that help players gain "new knowledge about social structures through their representation as key unit operations in the game" produce fun-prime (127).

Bogost associates fun-prime with serious games, which is a genre that seeks to make social or political statements with games. He also uses Gonzalo Frasca's term "newsgaming" to explain the artifacts that produce fun-prime (119). Bogost examines Frasca's newsgame *September 12th*, in which players control crosshairs through which they see a village in the Mideast. Some of the inhabitants of this village are innocent civilians, while others are weapon-laden terrorists. Once the crosshairs are oriented, clicking the mouse button sends missiles toward the intended target. A terrorist can be killed with this action, but the missile may kill civilians as well. When this happens, villagers will mourn the death of their neighbors and become terrorists themselves. If the player does nothing, the terrorists will eventually transform into villagers. Bogost summarizes the games meaning as simply "bombing a town is not a viable response to the terrorist threat; it begets more violence" (119). For Bogost, Frasca's newsgame highlights the rhetorical potential of games to produce social and political critique. Bogost describes the impact of fun-prime on players as refining their understanding of the game's

presentations and "implicating themselves inside that experience" (119-120). Bogost believes the rhetorical potential of computer games has gone untapped because the market "has focused…on entertainment players rather than engaging them in important topics" (120). By tying fun-prime largely to marginal or non-commercial games, Bogost neglects the possible transformation of ordinary fun within mass-market or *Triple-A*[2] games. This project attempts to correct for this bias by examining the experience of economic play in *Offworld Trading Company* and other popular games.

While it is possible to recognize the structures of capital during play, the focus on economic action as a fun experience points toward a new form of fun as economic play, which I will call *fun subprime*, or **fun$**. The experience of fun$ represents a potential critique of fun'. Fun$ inculcates, trains, and indoctrinates players into a growing network of neoliberal practices. Fun$ cultivates an experience of playing with money that redesigns plays a productive activity. While fun-prime focuses purely on potential critique or social revolution made possible during unit operations, fun-subprime (fun$) surrounds the player with economic operations in computer games, making players potentially complicit in capitalist endeavors. While some of the economic actions that make up unit operations in games will represent fun', the operations that induce players to generate value for developers, publishers, or other players constitutes fun$. Fun$ is not interested in critiquing economic or neoliberal practices; it inculcates actions that make financialization second nature. The analysis throughout this project examines actions across game culture creating what I see as fun$. As the types of practices, actions, and play creating

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[2] Triple-A, or AAA, reflects an informal classification of games with the highest marketing and production budgets. Its name is borrowed from the bond rating system, thus explicitly referencing risk. In more recent years, AAA+ games have appeared. To the high budgets of AAA games, AAA+ games come with additional revenue streams after initial purchase. New streams of revenue are examined in chapter 2.

fun$ diversify, a critique of the political economy of games is necessary to examine an expanding system of technology and users. This project represents a first stage of that critique.

The concept of fun$'s diverges from earlier work on games and ideological indoctrination. In *Games of Empire*, Nick Dyer-Witheford and Greig de Peuter examine the role of computer games in spreading the ideologies of empire, which they define as "the global capitalist ascendancy of the early 21st century, a system administered by…competitively collaborative neoliberal states," where preeminence of the United States is defined by its military prowess (xxiii). Dyer-Witheford and de Peuter identify two subjective positions these games create in players, "worker-consumer and soldier-citizen" (xiv). These subjectivities are integral to their idea of empire, and the idea of the worker-consumer Is instructive when considering productive play. However, empire has its limits when considering games in conjunction with financialization and currency manipulation. Their notion of the worker-consumer is heavily rooted in an exploration of *Second Life* and Linden Lab; it concerns the way in which states and corporations purchase and manage virtual real estate. In general, Dyer-Witheford and de Peuter are not overly concerned with actions players take in games; their focus is on states and organization. Fun$ considers how player actions within games are fundamental to neoliberal indoctrination and how play becomes a personally profitable practice.

The term *fun-subprime* has a specific meaning and derivation. Referring in some measure to the subprime mortgage crisis of 2008, fun$ identifies moments in play that raise fundamental questions of value in a context of uncertainty and exploitation. Subprime mortgages were taken out by borrowers who were "often first-time homeowners with spotty credit histories and modest if any down payments" (Kindleberger and Aliber 261). As the housing markets declined, the national housing market began to collapse when these borrowers' debts exceeded the value of

their homes. The investors and banks who held these defaulting loans suffered losses and some eventually failed. I invoke this scenario explicitly to indicate that the political (and actual) economy of digital play may be heading toward a similar crisis. Indeed, in at least one of my examples, the collapsing auction house of *Diablo III*, described in the next chapter, these dark possibilities become reality. Fun becomes fun$ in a context of unregulated growth, in virtual markets that perhaps inevitably escape their designers' control. Fun$ references economic actions and experiences that rewrite players as financial agents caught up in chaotic and ultimately self-destructive systems.

Fun$ mediates a neoliberal experience to players. Writing about digital currency and cyrptocurrency, David Golumbia calls out "the way that a set of…beliefs associated with the spread of technology incorporate critical parts of a right-wing world view…do not immediately appear to come from the right." Likewise, fun$ ingrains neoliberal perspectives through systematic and constant engagement with technologies and media systems. While the name of fun$ has its roots in a financial crisis, its logic replicates the obfuscation imbedded in credit scores to cultivate neoliberal ideologies. Frank Pasquale considers credit scores indicative of a "black box", or "systems whose working are mysterious; we can observe its inputs and outputs by we cannot tell how one becomes the other" (3). Pasquale describes the "uncomfortable reality in a world where credit scores have escaped from their native financial context and established themselves as arbiters of general reliability in other areas" (23). Credit scores no longer limit themselves to loan rates; they function as barometers for multiple purposes.

As Pasquale considers the implications of credit scores and obfuscation, Safiya Umoja Noble examines the "power of algorithms in the age of neoliberalism and the ways those digital decisions reinforce oppressive social relationships and enact new modes of racial profiling" and

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emphasizes the role of search engines in this process (1). She aims to "highlight cases of…algorithmically driven data failures that are specific to people of color and women and to underscore the structural ways that racism and sexism are fundamental to…*algorithmic oppression*" (4). While fun$ does not overtly enact the racial or sexist oppression described by Noble, it does perpetuate an economic oppression of players by obfuscating the cycles of endless consumption into which it seduces them. Fun$ reaffirms the obfuscation identified by Pasquale, and fun$ aims obscures a number of oppressive practices in game culture. As fun$ expands, it will no longer simply manifest through play; it will coopt other forms of consumption.

The term subprime is most readily associated with a crisis, and by associating the history of subprime with a feeling of fun, I recognize the potential for a crisis in contemporary computer game culture. While the game industry has never been immune to economic crises, both within its industry and in larger circles, the 21st century brings new dimensions of exposure. The potential for crisis persists in various aspects of game culture examined throughout this project. Chapter 2 examines the role of real-money transactions in computer games. These transactions invite increasing scrutiny from outside observers as players spend large sums of money on randomized digital goods. Government oversight and legislations is being threatened as these transactions become more common. In these transactions, the potential for overconsumption exists, and it will become imperative to understand the role fun$ takes in manufacturing the conditions making these transactions a potential crisis for computer game culture. In Chapters 3 and 4, I examine how fun$ portends a tenuous labor market for professional players and for amateur player-performers or *streamers*. Before proceeding to those discussions, I want to focus discussion on a key example in order to further establish the aims and methods of this project.

In *Offworld Trading Company*, gameplay reveals how economic relations exists between companies, commodities, and markets. As players recognize these relations, Bogost's fun' emerges, but the constant economic interactivity of may lead to greater participation in other markets which becomes fun$. These markets do not necessarily have to be in-game stock or commodities markets, but may also be Valve's Steam Marketplace, an online service where players can buy and sell in-game objects. Through a process of economic engagement, fun$ shows players the value and potential enjoyment of economic and financial activity. While value may appear to be for the player, often other entities like game developers or publishers generate value through player action. Fun$ offers another tool to understand how capital flows in computer games and shows how players participate in in the generation of value.

Central to this project is an attempt to understand the ways in which fun$ has begun to reframe the media ecology of computer game culture. In other words, I seek to understand to what extent this rethinking of fun has begun to spread through the forces and entities that produce and articulate digital play. In many ways, fun-prime's departure from games and into other works reaffirms the rejection of Huizinga's magic circle. The magic circle views games as a "safe place to play" offering "place of predictability and order in an otherwise chaotic world" (*Unit Operations* 134). Bogost rejects this concept by arguing "games provide a two-way street through which players and their ideas can enter and exit the game, taking and leaving their residue in both directions" and "if the magic circle were really some kind of isolate antithesis to the world, it would never be possible to access it at all" (135). Thomas Malaby offers a similar critique the magic circle and argues setting games apart as spaces and stories "is the largest roadblock to understanding what is powerful about them" ("Beyond Play" 96). Computer games never close themselves off from the forces that exist around them, and in many ways,

Galloway's notion of gamic actions suggest a mechanism by which games and players influence one another. Fun$ does not aim to critique the conditions of economic play; that experience exists in games pursuing fun'. For fun$, the goal is to extract value out of play; in this way it represents an end to the very possibility that games are isolated from external cultural forces.

Games and Economic Close Reading: *Offworld Trading Company*

Computer games often include simulated economic systems that invite player participation. These systems are frequently player-to-game, like buying items from a non-player character, or player-to-player, like the auction house or trade chat of most massively multiplayer games. Typically, this economic activity appears as secondary or supplementary to gameplay. *Offworld Trading Company* (2016; hereafter OTC) takes the opposite philosophy and shows how computer games can remake financial and economic systems as ludic ones. OTC is a science fiction strategy game where players lead corporations vying for control of global commodity and stock markets on a human-inhabited Mars. The game rethinks the conventional fourfold activities of strategy games - *explore, expand, exploit, and exterminate* - popularized by Sid Meier's *Civilization* franchise, replacing them with explicitly market-based or business functions. For instance, instead of running a nation state and developing an army as in *Civilization*, players of OTC manage corporations by raising capital, acquiring resources, and acquiring commodities. Resources are harvested and manufactured as the game progresses, and can be bought and sold at fluctuating prices. The game measures a player's success via the stock price of his or her company, and a major goal of the game is to perform hostile takeovers by acquiring a majority share of competing companies' stock. The stock price functions as the players score, rating their performance on the basis of value added to the company.

Gameplay in *Offworld Trading Company* favors interface management over the technical skill or fine-motor precision seen in other real-time strategy games. For instance, Blizzard's *Starcraft II* encourages kinetic skill and expertise by rewarding rapid mouse clicks and the management of hotkeys; mastery is often by measured by a player' APM, or actions per minute, during the course of a *Starcraft II* match. In OTC, gameplay requires the quick processing and interpretation of economic information like the prices of commodities and the availability of upgrades to necessary technology. Mirowski's idea of cyborg sciences underscores the value of information in economics, and OTC makes the management of information a core game mechanic. Informed economic action requires a particular interface to function, which is why the screen elements of OTC strongly resemble the Bloomberg Terminals of Wall Street and day trading platforms like E*Trade. Unpacking the various elements of the game's interface reveals how computational systems present financial and economic information for users and players.

During play, OTC's interface communicates economic information to guide player action and inform them of their opponents' productivity. The center of the screen displays the play area, which is a series of hexagonal spaces. Each hexagon represents a space where resources can be harvested or factories developed. The left side of the screen lists the current prices for all commodities on the market, and a green or red arrow indicates price trends. Above that, players see cash on hand and the amount of debt the company has. The stock prices of each company in a game are on the right side of the screen. All this data informs decision making and puts players in the role of futuristic day traders. In short, *Offworld Trading Company* provides the player with an array of economic information, the basis for and calculated choices with available information becomes central to play.

With this information in the interface (Figure 1), OTC encourages players to use the

financial information on display and make decisions based on the position their opponents are

taking in the market, rather than on the map. Moving the conflict of the strategy game from the

map to an indication of market activity situates the main conflict of the game in the business

arena. Most sessions and missions of OTC feature a similar pattern of resource collection,

company development, and market manipulation. Players begin by acquiring natural resources

from tiles near their headquarters, which they use to construct factories and produce

commodities. Water, aluminum, iron, silicon, and carbon can be harvested, while power,

chemicals, food, fuel, glass, oxygen, and steel must be produced. The game also allows players

to buy and sell resources via the market accessed via the interface. As players engage in the

market, it responds with fluctuating prices, which gives other players an opportunity to try to

manipulate the prices of various resources.

Figure 1 Offworld Trading Company

The interface and visual aesthetics of *Offworld Trading Company* are not completely

identical to those of Bloomberg Terminals or E*trade's OptionsHouse Platform (Figure 2), but

similarities are evident. E*Trade's OptionsHouse platform provides users with stock prices, price

charting, and integrated trading. On the left side panels of the screen, users see their account

value, positions, which indicates the user's commitment to a stock, and pending orders. On the

right-have side, users see how the market as a whole performs and set a watch list to follow any

stocks of potential interest. You can also see news as it relates to the market. In the center, users

can find charts, quotes, and other tools for making trades. The center of the screen allows users

to see trades, a more complete view of the market, and a detailed breakdown of their accounts.

Using the trading screen of the center panel allows users to see information about a particular

stock, which includes the stock's volatility, and pertinent news. OptionsHouse provides users

with a web-based tool to understand and consume financial information on their own. It

functions as a terminal to financial information for users lacking access to professional software.

Randy Martin notes that E*Trade and other financial services have produced games with the goal

of educating children on finance, and those games "maximize risk taking because that's what it

takes to win (as opposed to gain with actual investments)" (*Financialization of Daily Life* 69).

OptionsHouse shows how software communicates economic information to users and the kind of

actions users take in financial software to make investments.

OptionsHouse conveys economic information similar to *Offworld Trading Company* with

a parallel goal of encouraging constant and effective economic action. This description echoes

the interface of *Offworld Trading Company*; economic actions seems to invite a particular

interface capable of communicating information to users. While the interface outlines how
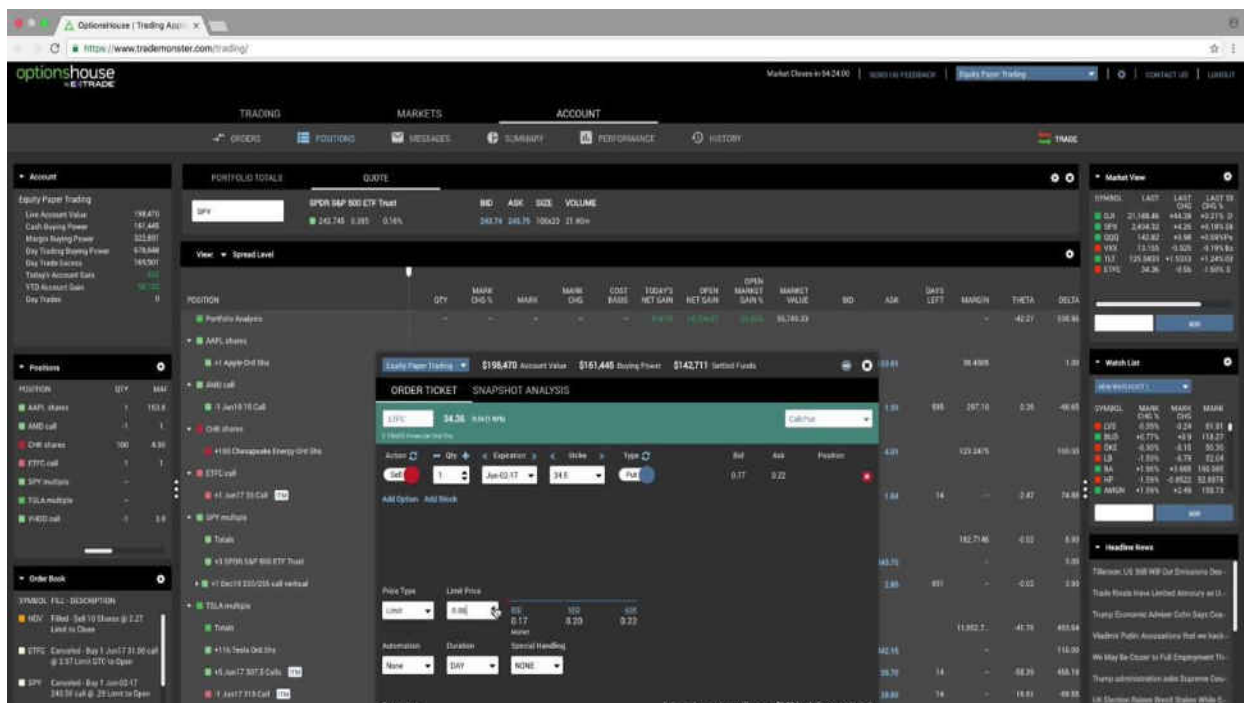
Figure 2 E*Trade OptionsHouse Platform

OptionsHouse functions, the paratextual marketing material shows the playable nature of

markets. In the OptionsHouse marketing material, E-Trade emphasizes the software's

interactivity, speed, and the control found at the user's fingertips. E*Tradewants to make users

feel empowered by their software, and like games, OptionsHouse provides agency to the users.

Offwarld Trading Company and E*Trade are not identical in form or function, but the

similarities in design show how economic information gets presented to users and reaffirms the

role of speed in financial decision making.

As players acquire capital, they can also purchase corporate subterfuge via the game's

officially designated Black Market. There are fifteen attacks or benefits potentially available to

players over the course of a game. For example, an electromagnetic pulse weapon (EMP) can be

purchased, allowing a player to stop the production of all resources in a certain area. Players can

acquire an item called Cook the Books, which allows them to raise the debt and credit rating

without lowering their debt to asset ratio – in other words, to commit accounting fraud. The

actions and items purchased from the Black Market provide the most direct forms of conflict

associated with real-time strategy games, and while they offer obvious interaction, they replicate

the necessity of managing the markets central to OTC's experience. When the market opens, it

offers six items for purchase, and while the costs are individual and not impacted by other

players' purchases, choosing one increases the price of others. The short-term advantage may not

outweigh the possible impact of being unable to afford better advantages later in a game. Like

buying resources, black market purchases encourage risk management on the part of the player.

      Offworld Trading Company's gameplay and world building represent finance capital at

its most extreme. It appears as both a parody of, and a love letter to, free markets. Frederic

Jameson describes the transformation of parody into pastiche. He suggests "pastiche is, like

parody, the imitation of a peculiar or unique, idiosyncratic style, the wearing of a linguistic

mask" (17). In some sense, OTC is a pastiche of capitalism and markets, generating fun$ out of a

collapse of opposition or parody into practices of complicity and replication. Fun$ ends the

imitation of capitalism by making games and play about the production of value. It offers a

potentially obvious description and answer for how computer games replicate the process of

financialization and understand capital's functions. The tutorial missions are designed like

business seminars and corporate onboarding sessions designed to teach new employees, as

represented by the players, the functions and intricacies of capitalism.

      While *Offworld Trading Company* offers a glimpse at the possibilities of fun$ as internal

gameplay, the other examples in the dissertation refine its implications in other realms of game

culture. OTC shows us how fun' can develop into fun$, and by recognizing the transformation,

the implications of the latter concept can be seen. Chapter 2 examines how the game developer

Blizzard Entertainment's move toward an interconnected game economy and unified vision for

consumption remake play as the production of value. It offers an example of fun$ as a motiving

force for the redesign of gameplay and game design. Chapters 3 and 4 examine the media

ecologies of e-sports and gameplay streaming respectively. In them, I examine fun$'s influence

on the action around games that extract value from play.

StockStream and "fun$" at Work

Part of what makes fun$ worthy of study is how it exploits the various systems tied into

networks of game culture. Understanding fun$ necessitates recognizing how various systems

work together to extract value. In May 2017, engineer Mike Roberts decided to let users on the

internet invest $50,000 of his money in the stock market through a scheme he calls *StockStream*.

Roberts develops software that integrates with Twitch (www.twitch.tv), a platform that primarily

allows people to watch others play games (discussed in much greater detail in Chapter 4). Using

this platform, *StockStream* invites the audience to vote on how to invest the money via inputs in

the chatroom. On *StockStream*'s website, the title "World's First Multiplayer Stock Markey

Game Using Real Money" appears at the top, using a pixelated font reminiscent of 16-bit video

games. By positioning itself as a game (perhaps with self-conscious irony), *StockStream* makes

the spectators into player-investors. Below the title lies the stream, which typically broadcasts

Cheddar, a financial news network like CNBC, but broadcast only on the internet. The

StockStream overlay frames Cheddar's broadcast and conveys information to the audience. This

overlay shows which stocks are currently receiving the most votes to buy or sell and displays

financial information concerning the value of the portfolio. It compares the portfolio to

NASDAQ and the DOW. The chaotic chatroom appears to the right of the streaming window,

showing viewers how others are voting.

Bogost might see *StockStream* as a fun' understanding of games and finance. *StockSteam*'s integrated vote mechanics diminish the perceived impenetrability of financial markets. Anonymous voting users can have success in the marketplace without the requisite knowledge and ability to navigate financial markets. Bogost might understand this element of StockStream as critical or markets and finance. However, this approach ignores the fun$ experience of players who immerse themselves in the logic of the market by voting on investments. The consumption of the market's ideology by participating in the stream event functions as more than an introduction to financial structures; it is, rather, a seduction. Instead of offering a critique of the role of finance and the market, *StockStream* constructs a means to interact with market. *StockStream* has more in common with OptionsHouse than with a newsgame like Frasca's *September 12*[th]. Fun' struggles to appear when there is actual and immediate value to be made through games.

I believe *StockStream* offers an intersection between computer game culture and financial economies. *StockStream* suggests the cultural systems of contemporary game culture interact with financial systems. In this stream or game, fun$ remakes what it means to spectate in computer game culture. The passive act of watching someone play games on Twitch is redeployed to generate value. The coalescing of finance and play is a major concern of this project, and this foray in ludic investing set forth by Roberts recognizes that cultural practices around games and capital are more entwined than ever. At its core, this project shows what forces and systems make *StockStream* possible – and what they represent for a world increasingly orientated to the subprime possibilities of fun.

Chapter 2: Unified Economic Play and Blizzard Entertainment

Over the past decade, the computer game industry has been through a period of transition and transformation. The business models of the 1980s and 1990s are being redefined as new technologies change how people play and consume games. In the earlier model of circulation for console games, players would simply purchase a title and have access to all of its content. While there would be occasional expansions available for purchase, games were readily seen as a singular experience contained within the cartridge or disc. In contrast, the 21st century sees playable content increasingly dispersed across patches, expansions, or other purchasable items. Publishers and developers increasingly seek to make playing a game a prolonged experience and constant commitment. This transition treats games increasingly as a service instead of a final product. Understanding games as services moves critics away from thinking about them as stable objects to be studied and raises the question of what it means to play (or play within) a service.

This chapter examines the transformation of games into services by examining the changes Blizzard Entertainment has made in the last decade to increasingly *monetize* their games. I understand this word in two senses: both the meaning common in contemporary business -- turning some activity into a source of profit (monetizing play) -- and a second, perhaps less familiar sense in which forms of money or currency, both inside and outside the game, become increasingly integral to play (playing with money).

Before examining the specific interventions by Blizzard, I want to examine broader changes within the industry by focusing on the rise of free-to-play games and the expansion of downloadable content. Typically, massively multiplayer role-playing games are supported by subscriptions, and the proliferation of microtransactions allowing additional content or competitive advantages define games as a service. This chapter considers how the service

provided by 21st century games aims to encourage players to participate in various economic transactions as they play games – my second sense of monetization. Throughout this chapter, I will develop the idea of games as a service in relation to Blizzard because this transition has implications for how play redefines itself as profitable and productive. Before going on to my analysis of Blizzard, I will scaffold more concepts and context important to studying games as a service.

First, free-to-play games are games that require no upfront purchase, but always include in-game purchases. These purchases range from cosmetic items, such as a new costume for a character, to competitive advantages in gameplay, like abilities that make levels in *Candy Crush* easier. This style of game design rose to popularity on the iPhone and Apple Store before making its way to computer and console games. Generally, free-to-play games provide an experience generating revenue for developers via the aforementioned in-game purchases, supplementing those purchases with in-game advertisement. One of the most prolific free-to-play games is *Candy Crush Saga*, a simple matching game where players match a candy item to destroy it, scoring points with each match. Difficulty drastically increases as players made progress in levels, and the game encourages players to purchase extra lives or power-ups after each failed attempt at clearing a level. Writing about *Candy Crush*, Bogost suggest the free-to-play model is "a sophisticated new gloss on the classic playing-for-time model pioneered by the coin-op games…only instead of coaxing pocket change from users, it extracts a kind of surplus value that…is infinitely more valuable" ("Rage Against the Machines"). For Bogost, the surplus value free-to-play games generate comes in the form of attention generated via "word of mouth." Free-to-play games appear driven by a positive feedback loop of consumption: the more people playing the game, the more likely someone is to buy the content contained within the games.

This feedback loop is possible because social media usage predominantly underlies free-to-play games. For example, *Candy Crush* encourages a particular use of Facebook to gain extra lives; using the *Candy Crush* interface, players can ask their friends to send them extra lives or special bonuses. Similar systems exist in a game like *FarmVille*, where players ask their friends to come water and maintain their farm. In both games, players could bypass this process by purchasing items that watered their farms for them, or buying extra lives. Use of social media represents an alternative to credit-card purchases, but both options are always available.

Outside of social media and free-to-play games available for smart phones, there exist other genres of free-to-play games using a different model for micro-transactions. These are seemingly less reliant on social media. Such games rely on micro-transactions not explicitly embodying a pay-to-win mentality. They rely on cosmetic and aesthetic purchases, which are discussed throughout this chapter. The purchases in these games do not provide a competitive advantage for players, nor do the purchases make the game easier, though they might in some indefinable way make playing the game more enjoyable.

While there are a number of free-to-play computer games, the most populous genre using these kinds of transactions is the multiplayer online battle arena genre, or MOBA. This genre effectively develops and potentially perfects the formula of free-to-play consumption. The genre typically features two teams of players fighting over a map with multiple lanes filled with computer-controlled non-player characters (NPCs) called minions. Killing minions earns the human player resources and in-game money (gold). Each player takes on the role of one of the various heroes in the game. At their core, MOBAs offer a competitive space where player skill seemingly dominates other variables.

Figure 3 Valve's MOBA Dota 2

While the popular MOBA *Defense of the Ancients 2* (Valve 2013-Present) freely offers

all heroes for player adoption, other studios have crafted a new business model for the genre.

Within this structure, players unlock heroes either by paying real-world money for them, or

earning enough in-game currency through play to unlock them. The most notable game using

this business model is Riot Games' *League of Legends* (2009-Present)[3]. Games like *League of*

Legends alter the MOBA formula by restricting access to certain forms of gameplay. While

players may slowly unlock characters by playing and saving their earned currency, the most

immediate means of access occurs by purchasing them with real-world money. This model of

paying to unlock content has spread throughout the computer game industry.

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[3] MOBA heroes are not designed to be overtly better than one another. The games encourage
players to unlock heroes offering new experiences of play. The games also generate revenue by
selling skins for the heroes. Skins are cosmetic and offer no advantage beyond appearance.

As free-to-play games increasingly proliferate in the marketplace, they redefine play by restricting gameplay options and encouraging habitual play as a means to accumulate in-game currency. This chapter explores how Blizzard's forays into free-to-play games have forced the company to rethink why people play games, showing how play can become work in free-to-play games. Often, free-to-play games provide a service and platform, functioning more as a storefront than a game. As the narrative of Blizzard Entertainment unfolds, I will show how the company's transformation intersects with these changes in the computer game industry. Ultimately, this chapter examines how Blizzard's games intersect to create what I call an interludic, or cross-game, economy connecting a number of their games in a unified business strategy: an advanced if not final evolution of the free-to-play model.

The narrative I construct in this chapter begins with Blizzard's *Diablo III* (2012-Present) and one of its major innovations: an in-game auction house using real-world money. This section shows how Blizzard uses playing with currency as an essential element of gameplay and highlights what happens when such virtual economies reach their limits. From there, I explore changes in *World of Warcraft* (2004-Present) intended to monetize that game through microtransactions, looking at how players have adapted those microtransactions to trade in-game currency ("gold"), and how Blizzard tries to rein in the practice of buying gold through an item called the *WoW* Token. This transformation of the company's flagship franchise has spread to other Blizzard franchises. I will use the analysis of *World of Warcraft* to examine how *Hearthstone* (2015-Present), *Heroes of the Storm* (2015-Present), and *Overwatch* (2016-Present) present a unified vision for economic play in Blizzard Entertainment games through their relationships to the *WoW* token. The chapter concludes by examining how recent changes to the

WoW Token attempt to unify the economies of Blizzard Entertainment and potentially make the players into quasi-employees, through an implementation of my signature concept, *fun$*.

Blizzard Entertainment at a Glance

By focusing on one game studio, this chapter attempts to historicize the changes to games and play induced by free-to-play games. Blizzard Entertainment is not a perfect or universal example, but the company is one of the more successful developers in the industry. Founded in 1991, Blizzard began by making games for home consoles and personal computers (PCs). Their first major commercial successes came with *Warcraft*, *Diablo*, and *Starcraft* in the late 1990s. These games led to numerous sequels and spinoffs and thus are recognized as *franchises*: key assets for Blizzard's corporate identity. Through its franchises, Blizzard has become recognized as a premier developer of strategy games. With *Starcraft* (1998), Blizzard launched Battle.net, an online service that allows players to convene competitive games against other players. Battle.net functions as the first unifying element of the Blizzard brand, and most if not all of Blizzard's subsequent projects rely on structures and affordances of that system. In many ways, Battle.net served as a precursor to unified economy I see emerging in later choices made by the company.

Battle.net outlines the logic guiding the reorientation of games as a service. Battle.net has furnished a platform and client for all Blizzard's major games throughout their history, and is currently expanding[4]. While the early version of Battle.net operated as a tool to connect players for online competition, its recent history aligns with the transformation of games into a service. Released in 2013, the current iteration of Battle.net functions as a hub for Blizzard where players buy games, update games via patches, and make micro-transactions. One the left-hand side of the

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[4] In 2017, Blizzard Entertainment's partner Activision makes Destiny 2 available to PC players through Battle.net marking the first time a non-Blizzard games appears on the service.

Battle.net client, a list of every Blizzard game appears, whether it is installed or can even be installed on the user's system[5]. The top of the client allows players to switch between games, chat with other players, use the Blizzard Shop, read company new releases, and take in promoted esports (see Chapter 3). When a user clicks on a game to launch, the client displays pertinent advertising and material about the game, reminding players about purchasable content or broadcast streams they should be watching. The idea of games as a service is reflected in the design of the Battle.net client. Games are not portrayed as systems that can be completed or finished, and instead operate like the Battle.net client itself, becoming places where players go to consume various types of content other than games per se. The changes made to Battle.net reflect a shift permeating game culture. Rather than simply being about finding other people to play against, Battle.net has become a place for consumption of various types of content associated with the primary game.

In 2004, Blizzard released *World of Warcraft* to critical and popular acclaim. This game uses the fantasy setting of the real-time strategy franchise *Warcraft* as the milieu for a massively-multiplayer online role-playing game, or MMORPG. For much of the 2000s, the financial success of *World of Warcraft* supported Blizzard's development of other projects, with *World of Warcraft*'s revenues of surpassing 1 billion dollars annually in 2014 (Tessi). In 2008, Blizzard merged with Activision, publishers of the *Call of Duty* franchise, forming ActivisionBlizzard. (I will continue to refer to the company by its older name for the sake of convenience.) The success of *World of Warcraft* allowed Blizzard to take additional risks with their other franchises' future development. For example, the single-player campaign mode of *Star Craft II* (2010) spans three

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[5] *Overwatch* can only be played on Windows. Mac users can see the game and its accompanying marketing, but are unable to play it on their operating system.

title releases[6]. While it was making this change to storytelling in *StarCraft,* Blizzard

simultaneously experimented with other forms of revenue and monetization, introducing features

in other games, such as the real-world-money auction house in *Diablo III*, to which we are

coming. The financial stability provided by *World of Warcraft* allowed Blizzard's leadership to

re-think their business model in sweeping and often radical terms. The implications of this new

thinking will be explored in the discussion that follows.

Extending Spaces of Play with Virtual Worlds

While some of the transformations seen in Blizzard's games have been through the

micro-transactions popularized in free-to-play games, Blizzard has also sought to expand the

reach of their virtual words by tying them together and connecting them to other social networks.

Discussing Blizzard Entertainment's game library requires a working definition and

understanding of virtual worlds and MMORPGs. The turn to a service model in 21st century

game design intersects with a longer trend of thinking about virtual worlds as places for work

and social life. Overall, this trend implies closer and more seamless identification between

online and offline experience. In this respect, the move toward game-as-service implies

formation of a daily ritual.

As I move through these various perspectives, the terms virtual words and MMOs, or

massively multiplayer online games, will be used interchangeably. Malaby embraces both game

and non-game applications in a single definition. He addresses systems that use "internet

connectivity to provide a persistent, open-ended, and shared three-dimensional space in which

users can interact, typically via avatars" (*Making Virtual Worlds* 2). This functional definition

provides the essential elements identifying virtual worlds and MMOs. In general, virtual worlds

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[6] Each playable faction in *StarCraft* is given their own full game for *StarCraft II*.

represent online spaces where play or interaction between and other users occurs. *World of Warcraft* was Blizzard's first entry into the genre, and the Battle.net service advanced the concept further when launched in the late 1990s. In many respects, *World of Warcraft* did much to define the idea of a virtual world when it launched in 2004. Players could make avatars and interact in a three-dimensional space that required an internet connection for access.

Strictly speaking, the Battle.net client might not qualify as a virtual world under Malaby's initial definition: it lacks a three-dimensional visualization of space, and a representation of the player as an avatar within that space. However, when Malaby considers how capital and value function in virtual spaces, he resets his definition to have a more fluid application. He shifts from calling *Second Life* a virtual word to calling it a synthetic world. This shift is inspired by the rise of a popular trading card game within *Second Life* that generated value for another company. For Malaby, *world* remains a useful term because "calling these environments *worlds* has its advantages, as the word best captures the open-ended and broad nature of these arenas, pointing to the ever-increasing possibilities for action within them" ("Parlaying Value"144). He moves away from the virtual toward the synthetic because virtual "founders on the very distinction that animates it: the *real* and the *virtual*. It is partly with an aim toward jettisoning the qualitative break implied by this pair of terms that I opt for *synthetic worlds* when referring to them as a group" ("Parlaying Value"144). Malaby's shift from virtual synthetic reveals how virtual words are becoming an increasingly open or negotiable concept. The move toward the synthetic reaffirms these systems as human-made spaces but allows them to remain accessible to other forces. In a sense, a virtual world represents a closed space or system only accessible by the users, but a synthetic world is more open to other external forces.

In many instances, virtual worlds have always been synthetic worlds; at no point have they ever been closed to external forces. The application of this concept to Blizzard's games is compelling.

Blizzard's unification of economic experience across its games and the Battle.net platform reaffirms the futility of perceiving virtual words as separate from the real world. Many critics agree that the disconnect between MMORPGS, virtual worlds, and the real word is problematic and misguided. Writing on *EverQuest* (1999-Present), a predecessor to *World of Warcraft*, T.L. Taylor suggests "playing [*EverQuest*] is about playing between worlds—playing, back and forth, across the boundaries of the game and the game world, and the 'real' or corporeal and the 'virtual'" (*Play Between Worlds* 17). Taylor argues playing in MMORPGs or virtual worlds inherently requires an ability to simultaneously navigate the real and the virtual. Vili Lehdonvirta considers the economic motivations for the separation between virtual and real worlds and argues the distinction that players see between the real in virtual serves corporate interests. He suggests "MMOs are painted as separate *worlds*, located outside 'the real world' because doing so "evokes powerful images of parallel worlds from science fiction turned into reality" (2). He argues this perspective is useful for "marketers and mainstream media," but "as for researchers, however, it is a treacherous fantasy" (2). Taylor and Lehdonvirta encourage a study of virtual worlds and MMOs that denies ontological separation, but from different perspectives. This project's approach to games and capital recognizes the role external forces have on computer games, and this chapter in particular seeks to show how a number of forces have motivated Blizzard to reorient their business and design strategies.

Malaby, Taylor, and Lehdonvirta offer a working framework for what virtual words and MMOs are and how they operate; meanwhile, other critics have started rethink virtual worlds and MMOs as services instead of games or spaces. Understanding the virtual world as a service

helps us understand how Blizzard manages the relationship between game and player. In trying

to distinguish between spaces and services, Adam Ruch examines the Blizzard End User License

Agreement (EULA) to see how it positions *World of Warcraft*. The EULA is, legally speaking, a

contract all users agree to when launching a game for the first time, or after a game has been

updated. The EULA sets rules and regulations governing players' use of the underlying software.

For example, the *World of Warcraft* EULA forbids the buying and selling of items through third

parties. Ruch suggests that the term *space* "might entail a sense of public, of open space not

directly under the control of Blizzard, which is exactly the notion Blizzard needs to squash

before it gets started" (4). Ruch argues further, "Blizzard envision *Warcraft* as a free-standing,

complete and operational service which players make use of while they are online. That is to say,

the game is a product they have created which [players] borrow access to, in order to do things

allowable by the code they have written." (4). By conceptualizing *World of Warcraft* as a

product players access, Blizzard makes an ownership claim to all assets within the game. Any

currency or items acquired by players are the property of Blizzard, and players may make use of

them, but only within the overall constraints set by the EULA. Lehdonvirta, who suggests the

transition to service places the developer in various positions of control, recognizes the

fundamentally ambiguous relationship between Blizzard and its consumers. For Lehdonvirta,

"the operator of the MMO is difficult to conceptualize…on one hand, it appears as a profit-

making company providing a service to customers, while on the other, a supreme government or

god" (8).

Trying to understand Blizzard as developer of services instead of games has its limits,

and it may not be particularly useful to think of any one game as a service – to say nothing of

thinking about corporate godhead. Virtual worlds typically unite a variety of practices into one

platform thus creating the idea of games as a service. For Boluk and Lemieux, reconceiving

games as service platforms unifies several disparate practices under a single piece of software.

They discuss how Valve's *Dota2* (2013) combines a number of activities associated with the

game into one platform. They see games becoming services that integrate social networks, online

market places, and computer gameplay (216). They identity how the trends in *Dota2* replicate the

logic of Valve's Steam platform, which similarly tries to combine those activities. Steam is

Valve's version of Battle.net, an attempt to connect all Valve games, plus a large range of

affiliated titles, in one platform players can easily access. However, unlike Battle.net, Steam has

a larger function as a store where players can buy and sell virtual goods including games and in-

game items such as avatar skins. The economic productivity Boluk and Lemieux identify as

integral for Steam is a defining feature of games as platforms and services.

While not identical in approach, Blizzard also attempts to create a feeling of productive

play throughout their games as they move toward a unified game economy. Blizzard connect all

their games into an increasingly singular experience; yet terms like virtual world, MMO, and on-

line service seem inadequate to describe the whole system. Clearly, individual games or parts of

them reflect various aspects of these concepts. However, these terms do not clearly explain what

happens when a game developer stops erecting barriers between their games and opts to develop

a cohesive economy, as Blizzard has. Valve offers the closest contemporary analog, but Steam

orients productivity around practices existing outside games and play. As discussed below,

Blizzard aims to make playing their games the main productive practice.

Digital Currency and Blizzard's Changes

Digital currencies have long been a part of computer games and have allowed players to

facilitate transactions among themselves. Blizzard's creation of unified economic experience

relies on the transformation and addition of various currency types across its games; these

currencies work together to make play in one game feel profitable across all of them. Quite

simply, Blizzard allows players of *World of Warcraft* to convert their game gold into Blizzard

store credit through the WoW Token. I examine the Token later in the chapter, but first I want to

preface the analysis of digital currencies by looking at currencies in general. For virtual words,

gameplay rewards players with currency they use to augment and improve their avatars or

experience. For Niall Ferguson, "money…is a medium of exchange, which has the advantage of

eliminating inefficiencies of barter; a unit of account, which facilitates valuation and calculation;

and a store of value" (23). To an extent, basic monetary functions occur in virtual worlds, but in

many virtual words and computer games, players are unable to extract the value because of the

various restrictions placed upon digital currencies. Edward Castronova regards this restriction as

an issue of adoption. If more consumers would use *World of Warcraft* gold as currency outside

the game's fantasy world of Azeroth, he argues, it could be used to purchase a larger array of

goods and services. The designers at Blizzard seem aware of this reasoning. The company

displays a consistent acknowledgment of how play can be profitable across worlds or

experiential domains.

When talking about currency and money, it is important recognize what money

represents beyond its function as a unit of accounting. Currency and money create social

relations by enabling interaction between people. Marc Shell offers a history of early American

currency forms and focuses on Wampum, which allowed European settlers to trade with

indigenous residents of the New World. He argues, "money is the only universal language"

because it allows social relations to exist (5). Viviana A. Zelizer reaffirms Shell by suggesting

"every currency attaches to a circuit of exchange and every circuit of exchange includes a

concrete set of meaningful relations" (130). For Zelizer, currency becomes the medium by which economic relations form social ones. She expands on the potential of virtual currency by suggesting that "[e]lectronic currencies…do transcend social location, multiply interaction partners, activate a variety of rights, and cover a broad array of goods and services. Even they, however, attach to the small minority of humans who connect with the internet" (130). Blizzard's currencies provide a framework for understanding the social relations emerging from *World of Wacraft*'s economies. Through the social relations formed around currency exchange, player interactions become transactional and oriented toward productivity. For Blizzard, productivity represents sustained player attention driving purchases of digital commodities, and in the case of *World of Waracraft*, renewed subscriptions.

With these theoretical pieces in place, Blizzard's evolution can be more effectively analyzed. As I proceed through their recent developments, I will examine a number of their recent games and the transformations they have gone through. Starting with *Diablo III*, I show how real-world money transactions proved calamitous in the game's early years, and what we can learn from this collapse. From there, I examine the launch of the WoW Token and implications of its development for play. I continue by examining Blizzard's recent foray into free-to-play games and the relationships these games have with the WoW Token. I conclude by examining a potential crisis emerging around free-to-play games and the Blizzard business model. Ultimately, this analysis of Blizzard offers a framework to examine the implication of virtual currency has on the practice of neoliberal indoctrination through gameplay, or *fun$*.

Blizzard and Real-World Money

Prior to introducing an internal currency to *World of Warcraft*, Blizzard experimented with real-world-money transactions between *Diablo III* players, using its in-game auction house.

Released on May 15, 2012, *Diablo III* was Blizzard's third installment of a popular action role-playing game. It featured continuous battles as opposed to turn-based competition and was heavily reliant on the dungeon-crawling and hack-and-slash subgenres of video games. Dungeon-crawling games require players to enter caves, dungeons, or other interior locations to find monsters, quests, and key opponents called boss characters. *Diablo III* occurs in a world where the demons of hell are in a constant fight against heaven, and the players represent the last hope of resolving the conflict to humanity's benefit. As in most MMORPGs, players pick a class to play in the war against the undead and demons; there are the Witch Doctor, Barbarian, Wizard, Demon Hunter, and Monk. The player uses her chosen character across four narrative acts, with each culminating in a fight against one of Diablo's demon generals, and eventually with Diablo himself. These acts include increasingly difficult challenges. Harder challenges require stronger characters, and in *Diablo III*, players increase their character's standing by acquiring more powerful items: empowering the avatar by use of acquired items is a key element of MMORPGs. Players attain items for their avatar through play or by purchasing them from diegetic vendors –crucially, however, these are not the only means. They may also use an in-game auction house.

When the game was first released, the *Diablo III* auction house allowed players to buy or sell the items found through play, with purchases resolved *in real-world money*. That is, a purchase made in the auction house would entail a charge to a PayPal or credit card account associated with the player's login. In many ways, the auction house simply provided a new space for micro-transactions to occur. However, the auction house differed from micro-transactions of pay-to-win games because players had much more extensive engagement in the transactions. In effect, the auction house allowed players to monetize their play, in both the senses I introduced at

the beginning of this chapter: the auction house created an exchange between play and money, and at the same time made money exchange an integral part of play. Blizzard also distanced themselves from a pay-to-win experience of free-to-play games by making the auction house player-centric: transactions were between players (sellers and buyers), not between players and the corporate owners of the game. Since players must first find, earn, or craft items to sell them, the auction house rewarded meaningful play and not just the willingness to spend real-world money on virtual goods. Players could list items found for sale, and other players could buy them; Blizzard thus absolved themselves from having to provide any sense of regulation and control of the auction house. Enormously dubious from the start, this approach would not survive the inevitable collapse of the auction house scheme.

Like other popular online auction services, Blizzard collected fees from its users. Blizzard levied two types of fee for using the auction house: a USD 1.00 fee for every item sold on the auction house, and a 15% charge to transfer any earned money from Blizzard's platform to accounts outside the game. The transaction fee had its own problems given the economy of *Diablo III*, but the transfer fees allowed Blizzard to tax players wanting to use their money outside the purview of Blizzard's service. When an item was sold in the real-world-money auction house, the funds entered the player's Battle.net account, which was used to access any of Blizzard's games and website. Optionally, players could transfer their money to a PayPal account and pay the 15% transfer fee. If the money stayed in the Battle.net account, the player could purchase other Blizzard games or use it to pay for their *World of Warcraft* subscription. The transfer fee existed to encourage players to spend their acquired capital on other Blizzard products. These fees allowed players to generate revenue from their gameplay, but restricted the flow of cash outside Blizzard's purview.

In some ways, the real-world-money auction simultaneously offered a shortcut to powerful items, and an additional way to play *Diablo III*. Instead of simply slaying the lord of hell and other enemies to acquire new items, a player could manipulate the item-trading market. The Auction House provides this alternate way to play, and thus creates what Boluk and Lemieux identify as a metagame, or something "occurring before, after, between, and during games, as well as everything located in, on, or around games" (11). Seemingly, the auction house offers an experience beyond just playing *Diablo III*. A two-handed axe might be useful both for battling demons and as a desirable trading commodity. To a degree, Boluk and Lemieux's metagames place the real-world-money auction outside typical gameplay, but for much of the game's existence, Blizzard seems to have been invested in making Auction House participation central to player experience in *Diablo III*, not something peripheral or "meta." In tandem to the idea of metagames, the auction house treats play as a form of "ludocapitalism." Nick Dyer-Witheford and Greg de Peuter describe "ludocapitalism" in conjunction with *Second Life*, using a model of capitalism in which the virtual aspects of the game feed "back into the actualities of capital though the medium" (xiv). For Dyer-Witheford and de Peuter, play is not meant to be profitable for players outside the game. For example, they argue gold farming – the generation of in-game value by organized, repetitive play -- is not a form of "ludocapitalism," but "a capitalist venture" in its own right (149). By this line of thinking, *Diablo III* represents an atypical situation. The real-world-money auction house engages the player in a capitalist venture and allows all players to participate. Play in this sense masks the capitalist activity Blizzard appears determined to promote. In *Diablo III*, play no longer seems to be a goal in itself; play represents a mechanism to enact capitalist engagement. Play functions as a structure that restricts what players can do in the game, and through the game, players seem overtly engaged with play as a

capitalist venture. Play has become a means to a more profitable end – from the perspective of

players who find themselves able to pay their *World of Warcraft* subscriptions with loot they

acquire in *Diablo III*. But this play is also certainly profitable from Blizzard's point of view, as

players have more incentive to maintain subscriptions and pay for new games and content once

the auction house is introduced. The real-world-money auction house thus ends the distinctions

built into Dyer-Witheford and de Peuter's ludocapitalism. Play and work radically converge. The

player becomes a worker or entrepreneur whose playful practice is intimately tied to money

transactions.

   This convergence is clearly apparent in the further evolution of the auction house

concept. During its initial release, *Diablo III*'s game-play experience relied on habitual play to

produce a steady supply of commodities for the auction house. With revenue generated via

transactions, Blizzard had obvious motivation to encourage player engagement with the auction

house. To that end, Blizzard designed various systems encouraging sustained play, and one such

feature was Paragon levels. Introduced in patch 1.0.4, The Paragon system aimed to alleviate the

frustration players felt upon reaching level 60, the initial cap for leveling characters, by offering

players another way to earn another 100 levels, providing more measures of performance

("stats") and unlockable cosmetic items. In describing their motivations for creating Paragon

levels for *Diablo III*, Blizzard recognized how "it can be demoralizing to play for an hour, not

get any [item] drops, and also be out a big chunk of gold from repair costs. [One's] play session

may not only end without an upgrade, it can wind up being a net loss. Everyone wants to feel

like their [sic] making some progress when they log in" (Wilson). Disregarding actual

implications of the system for a moment, we might notice how the language of the

announcement reflects ideas of play as profitable, by describing play in terms of loss and gain.

The writer's diction paints play in terms of profit and loss and actively reorients play in relation to that other profitable practice, labor. The Paragon system and its additional levels functioned as added incentives for players to see their play as consistently profitable.

Yet while the systems surrounding the real-world-money auction house configured play as profitable, rewarding, and positively habitual, the auction house ultimately failed, and Blizzard deleted it in the *Reaper of Souls* expansion in 2014. While the company suggested the auction house was closed because it "undermine[d]…core gameplay," its removal actually may have stemmed from a collapse produced by a coding error (Hight). On May 7, 2013, players discovered an exploit allowing them to immediately double in-game gold balances, because when players canceled any active transactions involving large sums of gold, the in-game currency thus put in play would double (Plunkett). For example, attempting to create an auction selling 6 billion gold caused the game to create an auction for approximately 1.7 billion gold, which is maximum amount the auction could technically allow players to sell. The missing amount is sent to the player's inventory, but because the game is unable to handle large numbers, the game divides the pile of 4.3 billion gold into four piles of roughly 2 billion. Players gain 2 billion gold out of this process of the game accidently creating gold. The issues creating the duplicate gold stems from the game's inability to create sellable items, or piles, with such a large number, so it inadvertently duplicated extra gold in players' inventories as they created auctions. Ultimately, the auction house could not handle such large numbers (Plunkett). This glitch allowed players to easily acquire surplus in gold and sell it for real-world money. Notably, one player achieved a balance of 371 trillion gold pieces. Because of this chaotic explosion of the in-game gold supply, the rate of exchange from dollars to gold decreased tenfold (Pitcher). In response, Blizzard took the auction house system offline while they repaired the code.

However, Blizzard's actions could not easily repair the perceived damage to players' online accounts. As Blizzard fixed the glitch, players clamored for a server "rollback," which would revert the state of the game and its economy prior to discovery of the exploit. Other players demanded a bailout of the game's economy by appealing to Blizzard as the regulatory authority. In this unanticipated moment of chaos, Blizzard's power over the economy appeared to be fully understood by the players, who recognized the developer's power to maintain a stable marketplace even if Blizzard did not appear interested in using their power. The players wanted Blizzard to control the system, and Blizzard needed players to have confidence in the system; yet this recognition entailed responsibilities they had not previously assumed. This moment demonstrates the potential economic chaos and collapse computer game culture appears capable of enacting.

Ultimately, Blizzard refused a server rollback, and instead removed all ill-gotten currency from the market and punished players who had used the exploit[7]. Blizzard donated all reclaimed real-world money to the Children's Miracle Network Hospitals (Good). While Blizzard never revealed the amount donated, in a forum post, Production Director John Hight states "only 415" players used the exploit for personal gain, and assures that Blizzard performed a complete transaction audit to remove illicit gold and real-world profit. Though Blizzard had not enacted a total rollback, the market returned to normalcy, and the punishment of players highlighted the role Blizzard wished to take when chaos threatened their game's economy. By enacting no rollback, Blizzard preserved player progress earned via play in the controversial period. However, the company's charitable donation deflected accountability for failing to maintain

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[7] Blizzard punished players by taking away their fraudulent currency and banning some accounts from accessing *Diablo III*.

market stability. In the end, this moment of chaos and collapse shows the kind of power the developer has as a regulatory and financial institution in virtual spaces; it also shows how players perceive and understand the authority of game developers as economic regulators. Fundamentally, virtual economies seem dependent on developers as stewards of stability.

In essence, *Diablo III*'s auction house appears to have been a failed experiment for Blizzard Entertainment. The auction house was an attempt to manufacture a non-virtual economy supported by play. The success of the auction house was ultimately undone by a currency collapse induced by code, and its removal signals the end of loosely-regulated economies in the Blizzard landscape where value can be extracted by players. In later developments, Blizzard has increasingly attempted to capture that value within their commercial system. While the real-world money auction house ended, Blizzard's perception of play as profitable then expanded into other games, as they increasingly developed systems aimed at encouraging constant and productive play. This trend of rewarding constant play makes possible the economic systems that characterize the free-to-play games Blizzard would release in the 2010s, unifying all their games into one economic experience.

World of Warcraft, the Token, and Initial Connections between Games

As the *Diablo III* real-money auction house collapsed, Blizzard added various game mechanics and systems aimed at monetizing its MMORPG, *World of Warcraft* (2006). *Diablo III* represents an attempt to create a commodity economy fueled by play, but with key changes to *World of Warcraft*, Blizzard turned to a virtual economy less driven by the potential for earning external wealth. For Blizzard, the concept of productive play aims capture profitability within the company's system. As the following analysis suggests, the idea of a virtual economy will expand into a system that seeks to unify multiple play experiences and provide players additional

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opportunities to earn or spend virtual currencies. For Lehdonvirta and Castronova, the "primary

purpose of a virtual economy is not even to earn revenues directly, but something [subtler] yet

equally powerful: the attract, hold, and manage attention; to reward referrals and incentivize

contributions; to allocate resources; to lock users into a platform or guide them around it" (4). At

least for these analysts, immediate profits and revenue appear ancillary in the design and

deployment of virtual economies. While the real-world-money auctions employ a conscious

logic of profit and revenue for players, the transformation of *World of Warcraft* reflects a shift

towards constant play and engagement.

Like most MMORPGs, *World of Warcraft* operates with a subscription model. After

purchasing the core game and its expansions, players typically pay $14.99 per month for access

to the game's world of Azeroth and their avatars within the game[8]. Despite the advent of free-to-

play games, subscriptions remain the standard revenue for the MMORPG genre. Subscription

fees represent a simple means for Blizzard to profit, while supporting the infrastructure

maintenance required to keep the game running. Micro-transactions made possible by an in-

game store often supplement subscription fees for developers. In *World of Warcraft*, the store

sells various cosmetic items, including companion pets, cosmetic armor, and mounts on which

avatars can ride. In the store, companion pets cost $10.00, cosmetic armors cost $15.00, and

mounts cost $25.00 (in U.S. dollars, not in-game currency). In November 2009, a Store launched

as part of Blizzard's merchandise operation, offering two exclusive companion pets, the

Pandaren Monk and Lil' Kel Thuzad ($10.00 each). At this point, the Store remained separate

from the interface of *World of Warcraft* and was accessible only through the Blizzard website.

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[8] Players also have the option of three and six month subscriptions, which include minor
discounts compared to the monthly fee.

Within the first two months, players purchased the Pandaren Monk in "excess of 220,000 units" (Fahey). Expansion of the store quickly followed, and in April of 2010, Blizzard added the first mount, the Celestial Steed. The release of the Celestial Steed ($25.00) earned Blizzard approximately $2,000,000 during the first four hours of availability (Cifaldi). The production of these goods likely cost nothing beyond the initial design work and some incidental programming; the items consist of numbers and pixels. From the outset, these micro-transactions offered Blizzard prolific and immediate profits supporting the traditional subscription model. Giving added control and expressiveness via purchases also worked to keep players invested in the game, and thus regularly subscribed. Spending an extra $25.00 on a Celestial Steed ostensibly encouraged players to keep their accounts active to justify the purchase – Steeds are for riding, after all -- reaffirming the definition of virtual economies offered by Lehdonvirta and Castronova.

After a few years of slow expansion, in December 2013 Blizzard integrated the Store's interface directly into *World of Warcraft*. Players now access the Store by clicking an icon on the menu bar located at the bottom of the main game interface. This icon opens a menu where players can purchase virtual goods using credit cards or other instruments associated with their Battle.net accounts. Instant access to the store merges the game space with commercial space. Yet despite this integration, gifting is only possible outside the game through the Battle.net application or the Blizzard website. When purchasing items, a player has the option to "gift" it to another and send a corresponding code to their email address. The receiving player must simply redeem the code in the store to acquire the item in the game. This feature offers another way for

Blizzard to profit via player relationships[9]; but the possibility of gift exchange introduced

unforeseen complications, such as the emergence of black markets.

Initially, Blizzard's Store offered a standard secondary revenue stream that worked in

tandem with the subscription model. On the surface, it offered players another way to exert

control over their avatar through the purchase of aesthetic enhancements. However, enterprising

players employed these transactions to convert real world cash or credit into virtual gold.

Through these transactions, a new economic market emerged among players, while Blizzard

remained an absent regulator, profiting from players' abuse of the system. These illicit

transactions occurred through a combination text communication and in-game operations. Like

Diablo III, *World of Warcraft* includes an auction house, introduced with its launch in 2004.

However, the auction house in *World of Warcraft* does not involve real-world currency, but is a

regulated market for transactions among players based exclusively on in-game gold. Prior to the

launch of the Store, players typically used the auction feature to offer crafting services their

characters performed, or items and weapons acquired through play. However, after the launch of

the Store and its expansion of available goods, players frequently offered other items in

exchange for virtual gold. While standing in one of game's major cities, players open a chat

channel where they can advertise items they would like to sell. Frequently, one will see a list of

items indicated with the tag "WTS," or "Want to Sell." Most likely, since the seller is bypassing

the auction house, he or she has not acquired these items through play, but has purchased them

from the Store. Offering the item for sale indicates a player's willingness to convert real-world-

currency to virtual gold.

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[9] Recruit-a-Friend is a program developed by Blizzard to generate user growth by offering
incentives for current users to get their friends to join. Players successfully able recruit their are
rewarded with mounts and other cosmetics.

These transactions are allowed by the mechanics of *World of Warcraft*, but they combine real-world and virtual currencies in ways that are technically forbidden in the game. Such questionable transactions have a very conventional structure. They begin with the aforementioned announcements, players respond to those advertisements via a private message, and a negotiation occurs via text. The buyer and seller must agree to two terms during these negotiations: the gold price of the item from the Store, and how the buyer will deliver the gold to the seller. *Upfront*, *afterward*, and *half now and half after delivery* are common terms in these transactions. The following is an extended example of this practice, seen from the perspective of the buyer. Phrases beginning with [To Seller] indicate things a buyer would typically say, and the responses start with [Seller], and all items also appear in brackets, and the items for sale appear in brackets in the dialogue. This example mimics the style of communication in *World of Warcraft*:

[1. General] Seller: WTS [Celestial Steed][Iron Reaver] 15K [Lil' Ragnaros][Pandaren Monk] 7.5K.

[To Seller]: I'm interested in the steed. Would you do 12K?

[Seller]: Fine. I want the gold up front.

[To Seller]: I'll do half-now and the rest after delivery.

[Seller]: Okay. What email do you want to use?

[To Seller]: buyer.character@yahoo.com

[Seller]: Give it a few minutes.

After this exchange, the buyer will give the player gold and await delivery of the Celestial Steed's redeemable code via email. These conversations rely on both players trusting each other to some degree.

In effect, these transactions construct an emergent market operated for and by the players. Celia Pearce describes *emergence* as complex and decentralized self-organization of systems not predicated by a game or a company's system (42). Emerging markets and communities often occur in computer games and supporting websites, like eBay or Reddit. For *World of Warcraft*'s money conversion market, the emergent transactions readily organize around the ethics of the players. Both buyer and seller appear at the mercy of the other not to deceive them, but the buyer seemingly assumes most of the risk as there is no way to undo a gift transaction via Blizzard's store without admitting an attempt to violate the prohibition on trading in real-world money. On the surface, these transactions offer no recourse to prevent the seller from running off with the 6,000 units of gold. However, without the mutual trust between buyers and sellers, the system of exchanging real-world-credit for virtual gold would collapse. In this sense, the notion of decentralized systems describes the logic of these exchanges. However, I suggest this market differs in the manner in which Blizzard attempts to control flows of capital while hiding behind a protective guise of disavowal.

While my description of these transactions may make them appear commonplace and appropriate in the game, this has not actually been the case. Until recently, Blizzard deemed these transactions exploitative and in violation of the Terms of Service. Players could be banned for engaging in them if caught by moderators or game managers. This prohibition ostensibly protected players from the dangers of unregulated transactions. They also absolved Blizzard from having to actively regulate these transactions and redress players cheated of their gold. In a forum post responding to a player asking about the nature of these emergent transactions, Blizzard Moderator Nephadne claimed the transactions could lead to account hacking and might be a scam because of the necessity of providing a stranger with a personal email address, which

can double as a *World of Warcraft* account name. However, the illegitimacy of these transactions

did not make them disappear from the game world or make them any less meaningful for the

game's economy. To borrow David Myers' suggestion, players will always engage in bad play,

or "play that is against the rules" (17). If players can reasonably do something in a video game,

they probably will. As Lehdonvirta and Castronova's observe, "Blizzard has never been able to

stop the secondary market transactions …with unsanctioned markets for virtual gold…never

more than a web search away" (150). In Boluk and Lemieux's terms, metagames are inevitable.

Yet Blizzard might indeed have stopped the unsanctioned market from ever emerging. It is

important to remember that none of these ostensibly prohibited transactions could have taken

place without the ability to purchase goods from Blizzard's store. The Store and the gifting

feature in *World of Warcraft* allowed the black market to come into being. They also permitted

Blizzard to profit from that emergence. This scenario might be compared to developments in

other sectors of computer-enabled capitalism.

Michael Lewis describes "dark pools" as a "rogue spawn of the…financial marketplace"

created by computer programmers and controlled by the broker running them (42). Dark pools

are concentrations of capital maintained outside the ordinary, publicly scrutinized regimes of

stock trading. Lewis argues that dark pools rely on obscuring transparency and protecting

transactions from public markets. They bypass standards and practices of equities trading: dark

pools make money saving "fees…paid to the public exchanges — by putting together buyers and

sellers of the same stocks…at the same times" (Lewis 43). In effect, dark pools further abstract

the processes of financial capital through a reliance on computational roles while simultaneously

protecting corporations and the trading public from potential perils in the public market. For

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capitalism, it is more logical to trade in abstract and obscure computational systems than the volatile marketplace.

While there is no direct, one-to-one homology between dark-pool stock trading and the emergent economies in *World of Warcraft*, there are compelling similarities. The store inadvertently offered an avenue for some players to effectively convert excess capital in gold away from the market of gold farming websites, which had the effect of diverting profits from this currency manipulation to Blizzard itself. There may have been no actual dark pool of capital in this case, but the black market in *World of Warcraft* most certainly has structural similarities to that phenomenon. It may not be a computational service directly maintained by Blizzard for their customers to use as a platform for secure trades, but it accomplishes much of the same purpose. The game world's version of a dark pool is fragmented, with decentralized mechanisms scattered among the players and the Store. In both actual dark pools and the emergent dark market of the game, concentrations of capital appear in places not exposed or amenable to regulation.

For some time, humanists have been reconciling the metaphors behind the dark pool and the cultural indications of the concept. Peter Hitchcock considers the implications of dark pool's name; he suggests, "it is the lack of visibility that gives the trade its darkness, its deficit of public display, its fetish quality" (143). Hitchcock's description reaffirms dark pools' ability to return profits to private entities and emphasizes the dark component of this structure. Patricia Yaeger explores dark pools more for their liquid metaphor, which provides "materiality" to concepts and worlds that are becoming increasingly "ethereal" (523). Dark pools are perplexing structures clinging to the metaphorical potential of their name. Hitchcock and Yaeger reaffirm the deeply private and obtuse characteristics of dark pool, the potential control of capital flows, and the

directive to keep profits away from public markets.

In the relationship between the Store and player-to-player transactions in *World of Warcraft*, I see traces of an emergent dark pool. The Store offers a private mechanism enabling trades between players, and like a dark pool, it funnels profits back into the corporation instead of allowing public or secondary markets to profit. While not overtly constructed by Blizzard to enable these transactions, the Store exists as a system for players to exploit in service of their economic needs. These transactions show how an in-game store may be used as a money exchange. From my perspective, the emergence of these transactions marks a deregulation of controlled virtual economies[10]. Deregulation of the virtual economy may occur any time a virtual world integrates real-world money into the game space. Blizzard's Store provides an entry point for real-world currency. The following section explores how Blizzard further deregulates *World of Warcraft* and invites it players into a unified economic experience, in an attempt to make illicit transactions and gold farming integral to the economic experience across all Blizzard games. Blizzard enabled this transformation with the launch of the WoW Token, a commodity introduced to the *World of Warcraft* store in 2015.

Through the WoW Token, Blizzard sanctioned the buying of in-game gold as a legitimate practice. Purchased through the store, the token exists to be sold on the *World of Warcraft*'s auction house in exchange for gold. Tokens cost $20.00, and at their launch, could be redeemed for one month of game time, which as previously stated costs $14.99 in U.S. dollars. Purchasing a token generates more revenue than simply renewing a subscription, so the tokens have an obvious revenue-producing motive, but the purpose of the token is also to facilitate transactions

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[10] A number of unregulated virtual economies feature open flows of capital, the multi-player science fiction game *EVE Online* being the most notable.

between players eager to convert real-world-credit into virtual gold. The dollar difference in price between a month of a game time and the token serves in effect as Blizzard's fee. When selling tokens on the Auction House, Blizzard sets the gold price, which stabilizes the market and provides a clear exchange rate for prospective buyers. In other words, Blizzard make themselves the intervening agent for buying and selling gold through the WoW token.

At its inception, the WoW Token represented an attempt to combat the illicit practice of buying gold described above. It was intended to make illegal services of gold sellers obsolete. In one sense, Blizzard's introduction of the Store and the WoW Token allowed some players to deploy their capital to support Blizzard rather than the exploitative condition of sweatshops in which gold farming occurs. Lisa Nakamura argues gold farmers are player-workers trapped in "a virtual sweatshop" and "their high-tech labor in low-tech conditions more closely resembles maquiladora factory laborers' conditions than it does other recreation or professional software-based activities" (199). WoW tokens offer a Blizzard-sanctioned alterative to the exploitation of workers in Nakamura's virtual sweatshops. These transactions offer one way to undermine a market of global capitalism that has exploited the surplus of labor. While it may displace exploited workers in some limited way, more likely the attempt to end gold farming takes profits away from the secondary or black markets and claims them for the corporation – a point discussed further in following sections.

For Blizzard Entertainment, the Store and the WoW Token show the company rethinking the monetization of its games, both in terms of profit extraction and in the thematics of the games themselves, which were significantly transformed through the introduction of trade channels. Taking Blizzard as example and indicator, I see game producers increasingly adding financial services to their games. The implications of these changes remake core concepts in game studies.

As games increasingly offer structural monetization, the distinctions between work and play become increasingly tenuous. It may verge on absurdity to suggest that players of *World of Warcraft* used the store to construct something like a dark pool, but the relationship between games and finance capital always has some degree of absurdity at its core. Financial instruments are after all always representations and references, no matter how they masquerade as contracts. Money is almost never worth just the paper it is printed on; its value is intangible and inevitably speculative. Computer games offer immense possibility for playing with the limits of systems and structures, and with the emergence of a user-generated dark pool, I see players participating in capital's need to exploit systemic loopholes. Whatever perils may lie in Blizzard's various trading experiments, they are obviously not as serious as the derivative-induced housing crisis of 2008. Yet systemic gaps provide possibility for capital to find new ways to grow, often in ways that disrupt and displace existing structures. As Blizzard began to monetize play in the Blizzard Store, and as it failed disastrously with the *Diablo III* auction house, the company made sweeping shifts in the kinds of game they developed and produced.

The Economic Unification and Playing Between Markets

While Blizzard's transformation of *World of Warcraft* took it from a subscription service to a platform with multiple revenue streams, their newer games capitalize on industry shifts made possible by free-to-play games. With *Hearthstone* (2014), *Heroes of the Storm* (2015), and *Overwatch* (2016), Blizzard entered a new epoch where the economic systems of free-to-play games merge with Triple-A development and design. These games take the concept of the *World of Warcraft* Store and push it toward extremes. Where the *World of Warcraft* Store offers specific cosmetic items for purchase, the newer games monetize randomized items and attempt to glamourize the spectacle of acquiring ("opening") these objects. In other words, this trio of

games make purchasing in-game goods as much a spectacle as combat, exploration, and other details of gameplay. This section examines how free-to-play games transform the profitability of play, and the implications of this change for Blizzard's unified economic experience.

Released in 2014, *Hearthstone* is a free-to-play collectible card game set in the same diegetic space as *World of Warcraft*. Players build decks based on the characters, items, and places of Azeroth. Game Director Ben Brode describes *Hearthstone* as an interpretation of Azeroth that explores "the silly side of *Warcraft*." While new players can play up to level twenty in *World of Warcraft* without charge, *Hearthstone* is Blizzard's first completely free-to-play game and their first designed for mobile phones – both major departures major for Blizzard Entertainment. As of 2017, the game has 70 million users and routinely is one of the top three viewed games on the gameplay-streaming service Twitch. *Hearthstone* offers a look into how Blizzard is adapting to an evolving marketplace of play and game consumption.

In its gameplay, *Hearthstone* recreates the collectible card experience of analog games like *Magic the Gathering* (1993), where players buy cards, build decks, and use a complex calculus of card values to conduct duels. In *Hearthstone* players compose a deck of thirty cards from their card pool, with decks organized around one of the classes from *World of Warcraft*. Each class has its own set of cards and gameplay based around the function of the class in the *World of Warcraft* MMORPG. The classes are Druid, Hunter, Mage, Paladin, Priest, Rogue, Shaman, Warlock, and Warrior. Since the game is free to play, a set of core cards is available to all players. Players can acquire additional, more powerful cards from packs that can be purchased with gold earned via play, or with real-world currency. In effect, players are restricted by both what cards they own and by the class for which those cards are useful. When building a *Hearthstone* deck, players begin by choosing one of the nine classes, which reduces the amount

cards they can use to those associated with a specific class, along with some neutral cards. Players then assemble a thirty-card deck and begin dueling others in either casual or formal, rank-defined contests. By designing the card game around classes, Blizzard restricts the cards players can use when deck building. For instance, a player building a deck for the Hunter class cannot use their Warlock class cards. These limitations encourage players to buy packs to expand their card pool. Effectively, having a smaller card pool limits the ability to construct the most effective and powerful decks.

The pricing system of Hearthstone provides a slow path to acquisition of new cards. One pack costs 100 gold, but can also be bought in bundles for real-world money. Booster packs include five cards with one card guaranteed to be rare. In the United States, the most expensive bundle is $49.99. It provides the player with 40 booster packs. Players can earn gold in three main ways. The simplest is to win a bout against another player; every three victories yield ten gold, with a cap of 300 gold per day. Every day players receive a quest awarding from 40-100 gold depending on the goal. Players can complete quests by playing a certain kind of card or winning a number of games within a specific class. For example, the "Tactician" quest rewards 50 gold for playing 20 Warrior class cards, and the "Mage or Hunter Dominance" quest offers 60 gold for winning three total games in either of those classes. *Hearthstone* conforms to a model Boluk and Lemieux describe as "videogame software [that] ceases to operate simply as a game and transforms into service platforms…and online platforms for another type of play: a massive million-dollar moneygame in which *free-to-play* is actually a code word for *free-to-pay*" (216). In *Hearthstone*, better cards allow a potentially more rewarding play experience. The best ways to acquire better cards involve spending real-world money for booster backs. While *World of Warcraft* increases revenue with cosmetic add-ons, *Hearthstone* makes consumption a central

means of competitive success.

The popularity and financial success of *Hearthstone* has influenced Blizzard's two other recent games, *Overwatch* and *Heroes of the Storm*. *Overwatch* is a first-person shooter (FPS) featuring character-driven, competitive gameplay, and *Heroes of the Storm* is Blizzard's attempt at an official MOBA, or multiplayer online battle arena. (I cover MOBAs at length in chapter 3.) Each game adapts the free-to-play moneygame developed in *Hearthstone*, and in this adaptation, Blizzard produces an increasingly unified economic vision for player spending. With *Hearthstone*, two factors create a system aimed at turning players into consumers: the aleatory nature of booster packs, and a scale of card rarity. This philosophy percolates through *Overwatch* and *Heroes of the Storm* as both games reconfigure the randomized nature of card (or resource) packs and adapt them to fit additional game genres. Modeled after *Hearthstone*'s booster packs, both games feature *loot crates* which unlock various cosmetic items for the player.

While loot crates are not identical to booster packs, they share similarities. In *Overwatch* and *Heroes of the Storm*, players receive loot crates as a reward for leveling up their account by persistently playing the game. Each account level provides one loot crate, and higher levels require more points and time, and in both *Overwatch* and *Heroes of the Storm*, loot crates contain four items. While loot crates can be earned solely through play, players can also purchase them with real-world money in bundles like *Hearthstone*'s card packs. Loot crates operate as means to reward and incentivize play. In terms of content players can unlock, *Overwatch* has five different types items players can acquire from loot crates. There are "skins," which provide an alternate appearance for a character; skins can range from just being a different color to an entirely new outfit for a character. Next are "emotes," which are animations players can use during play to taunt their opponents or interact with their teammates. "Victory poses" are stances the characters

take after winning a game. "Voices lines" provide players additional lines of dialogue for characters, which they can make them say over the course of a game. "Sprays" are images players can put on surfaces of the game's various maps. Finally, "highlight intros" are short cinematic clips introducing a character when that player demonstrates the best play during a game (roughly analogous to highlight clips in professional sports broadcasting). Various versions of these items can be found in loot crates, and as of 2018, there are over 2400 cosmetic items available. However, the contents of any crate are determined by random factors, making them essentially aleatory: opening a crate is like rolling a set of dice. This aleatory convention, along with the slow pace of acquisition, limits the rate at which player unlock the full catalog of items.

Released in 2016, *Overwatch* is a squad-based FPS in which players inhabit characters with unique weapons and skills, and are required to team up for combat. *Overwatch* is an atypical video game in the 21st century. A player's initial $60 purchase unlocks every game mode and character. As of now, Blizzard has yet to produce additional purchasable pieces of content adding new characters or additional ways to play. However, the game has been supplemented by periodic releases of new content and character freely available to players. This choice to produce free playable content suggests *Overwatch* may not operate like the "free-to-pay" service platforms Boluk and Lemieux define. This does not mean, however, that *Overwatch* is free from the economics of loot.

Overwatch systematically encourages spending by tying loot crates and unique items to limited events, making them available only for a few weeks. A player earns one free loot crate for each account level-up. During special events, Blizzard replaces the regular loot crates in *Overwatch* with special crates containing themed cosmetics. *Overwatch* associates particular items with in-game events, which are typically only available a few weeks at a time. For

example, in each December since its release, *Overwatch* has featured a "Winter Wonderland" game event, featuring a unique mode of play. For instance, in 2016 players had their weapons removed and could only throw snowballs at each other, and in 2017, teams of players faced off against a Yeti. These modes exist as seasonal diversions form the usual competitive game modes. Along with this event, Blizzard produces special loot boxes with holiday themed "skins" for characters. After the event ends, these crates cannot be earned or purchased, making the skins acquired in this way a commodity that reflects a player's commitment and performance. Ultimately, *Overwatch'*s seasonal events create an artificial scarcity in virtual goods, maximizing demand for key items. Where there is no secondary market for the sale of skins or other goods unlocked via loot crates for *Overwatch*, some websites establish auctions where players can sell their entire account. Since Overwatch lacks an ability to trade items a market for unlocked *Overwatch* virtual goods has presently failed to emerge.

   Fundamentally, *Heroes of the Storm* represents Blizzard's attempt to develop a MOBA, or multiplayer online battle arena. The game incorporates heroes from across the Blizzard canon as playable characters. Released in 2014, the game constitutes Blizzard's answer to Riot Games' *League of Legends* and Valve's *Dota2*. While the typical MOBA features prolong play on a single map, *Heroes of the Storms* aims for shorter playtimes using multiple maps with particular constraints. For all these differences, *Heroes of the Storm* shares some attributes of the MOBA genre. At launch, *Heroes of the Storm* used two types of currency, in-game gold and real-world money. Players could purchase playable heroes, skins, and cosmetic mounts with real-world money, and heroes could also be unlocked via the game's gold, which as in *Hearthstone*, is earned through regular play and by completing daily quests. This first economy represents a fairly simple system seen in many free-to-play games. In 2017, *Heroes of the Storm* was

relaunched as *Heroes 2.0*, and this revision included remaking the *Heroes* economy to more explicitly reflect the other games of the Blizzard canon. Blizzard added more cosmetic commodities, limited access to them, and reconfigured the currency.

The simplest summary of the relaunch suggests Blizzard made *Heroes of the Storm* feel more like *Overwatch* and less like a quintessential MOBA. In addition to new skins, *Heroes 2.0* adds new cosmetic items that include player icons, announcer packs (similar to highlight packs), and chat emoticons based on the game's characters. Like *Overwatch,* these items can be acquired via loot chests, which are unlocked through play or can be purchased. *Heroes of the Storm* calls their variant of a loot crate a chest, which players open as if they are filled with treasure. Functionally, chests and crates are the same between *Overwatch* and *Heroes of the Storm.* (I will use the term loot crate for consistency and clarity.) In general, these three games present a paradigm shift for how players can acquire items from Blizzard games, with much greater emphasis on randomized commodities than in earlier Blizzard titles. While in-game gold remained generally the same, the relaunch moved the *Heroes of the Storm*'s economy away from a system dependent on real-world currency values. In place of this reference, the designers added *gems*, which became the new unit of accounting for the game. For example, a new hero added to the game would routinely cost $14.95 in U.S. dollars; after the relaunch, the character cost 750 gems. The game now requires players to convert their real-world currency into gems in order to conduct transactions within the game. Gems are bought in bunches, with bigger amounts of gems offering the most value. Often, a purchase of gems to acquire an item from the store will leave the player with some remainder of unused gems. A third form a currency known as *shards* is also added in *Heroes 2.0.* They are used to unlock the new cosmetics and are created when a player

opens a duplicate virtual good in a crate[11].

Virtual goods are not simply purchased or unlocked by players; they can also be discovered and opened through chance. With card packs and loot crates, Blizzard constructs a visual idiom for these objects and their contents aimed at celebrating rare finds. In *Hearthstone*, players drag a pack from the left-hand side of the screen toward the middle. The pack then bursts open to reveal five cards, reversed, and players click on each to reveal the cards they have unlocked. Cards are valued according to the probability of their appearance, ranging from ordinary or common to Rare, Epic, and Legendary. At least one Rare card appears in every pack, and Epic cards appear on average once in every five packs, while Legendary cards appear once every twenty packs. The Innkeeper, who is *Hearthstone*'s narrator and announcer, will call out the appearance of any cards in the latter categories. Legendary cards also receive some visual glamour when flipped over; they are surrounded by a glowing orange circle. Similarly, loot items in *Heroes of the Storm* must be clicked for reveal or unfolding, and will glow according to their rarity. In *Overwatch*, when a loot crate is opened, the items erupt from it as discs color-coded for rarity, and reveal their identity when they touch ground. In *Heroes of the Storm*, the player can spend gold to recycle or "reroll" any chest (crate), eliciting a different random selection of goods. These features are meant to make the luck and uncertainty of opening random objects exciting, and evoke what Natasha Dow Schüll, commenting on the design of gambling parlors, calls the "machine zone." She suggests that when players enter the machine zone, literally a room containing slot machines, "time, space, and social identity are suspended in the mechanical rhythm of repeating process" (13). In these newer Blizzard titles, opening crated objects provides

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[11] A similar currency exists in *Overwatch*. Duplicate items become a small amount of credits players can use to buy cosmetic goods.

access to the machine zone – which means that these games owe at least something to digital

gambling programs. However, this resemblance is not identity; unlike a slot machine, a loot

chest leaves the player with items of in-game value every time it is accessed, and the value of

those items relates to their potential use in a role-playing game. However, the nature of this game

is strongly transformed by the addition of item acquisition, and its embellishment and

glamourization in a machine-zone aesthetic.

The appearance of loot crates and booster packs across several games reminds us that

their introduction is part of a concerted corporate strategy. For Blizzard's vision of random

items, gameplay is no longer simply a profitable process within one game. Each game's

economy depends to some extent on the play or work done within the others. These games make

some gestures toward a cohesive Blizzard economy reliant on loot crates and booster packs. In

Virtual Economies: Design and Analysis, Lehdonvirta and Castronova discuss virtual currencies

in terms of *faucets* and *sinks* (204-206). A faucet constitutes a source of currency, while a sink

reflects a place to spend or use said currency. In their most recent trio of games, Blizzard seem to

have concentrated on sinks: loot crates and booster packs create platforms for players to spend

their acquired virtual currency.

In February of 2017, Blizzard created a new faucet of virtual currency for their

developing platforms by making a change to the previously discussed WoW Token. The WoW

Token, which can be bought for real-money and sold for gold in *World of Warcraft*, now applies

Battle.net store credit to a player's account, instead of just granting one month toward a *World of

Warcraft* subscription. This change initiated a new influx of virtual currency into Blizzard's

other games, which become sinks for excess *World of Warcraft* gold. Players of *World of

Warcraft* can buy store credit for Blizzard's other games using their *World of Warcraft* gold.

This transformation creates a unified economic experience in which play in game generates value in another. For instance, a player can redeem their WoW token for a Battle.net balance and use those funds to purchase *Overwatch* loot crates, *Hearthstone* packs, or expansions for *Diablo III* and *World of Warcraft*. In effect, Blizzard gives *World of Warcraft* uses in other games by buying WoW Tokens, applying a Battle.net balance to their account, and using those funds in other games. By allowing the WoW token to apply Battle.net credit, Blizzard increases the potential use value of the WoW token, providing it with additional applications in Blizzard's platforms. This cross-game scheme creates a different feedback loop than the one Bogost identified in earlier free-to-play games. Play in one game creates an opportunity to acquire commodities in another, which develops intertwined systems of virtual consumption across an entire range of corporate titles.

Conclusion: Meditations on a Crisis, or Loot Crates and Fun$

This transformation of the WoW Token as a unifying currency form across games reaffirms a logic of productive play seen in *Diablo III*'s auction house. For instance, play in *World of Warcraft* now produces value in *Hearthstone* by allowing a player to convert gold in booster packs. Play becomes overt labor for players in this system. In this conversion of play into a form of labor, *fun$* -- or an experience in computer games that inculcates, trains, and indoctrinates players into a growing network of neoliberal practices -- turns play into a source of profit for players.

Fun$ also initiates a crisis in computer games – not just because of the radical implications of fusing work with play, but in more particular terms of in-game economics. The proliferation of loot crates offers an important case. In 2017-18, computer gamers' love affair with loot crates and randomized reward systems invited government oversight and threats of

regulation. These regulatory threats come in response to possibilities of addiction. In *Addiction by Design*, dow Schüll suggests "anything can addict, [and] although no substance or activity [is] bad in and of itself, any consumer behavior…could become problematic when practice in excess, or 'for its own sake'" (243). For dow Schüll, addiction is constructed through the design of casinos and the machines found in them. She suggests, "design strategies [of casinos and machines] for rendering continuous productivity match gambler's desire for the insulating continuity of the [machine] zone and vice versa; gamblers become collaborators in the optimization of industry profits" (73). Dow Schüll's perspective outlines a framework for designed addiction induced by machines and games, and while she focuses on casinos and machine gambling, loot crates invite a similar experience of constant productivity and occasional reward. This connection seems powerfully apparent in the common user term "re-rolling," as applied to loot crates. The crate might as well be a pair of dice, or the rotors of a one-armed bandit. Aleatory play always carries the potential for addiction and abuse.

In pursuit of increased and addictive consumer spending, the computer game industry appears to be risking the introduction of international oversight and regulation. At a confirmation hearing for nominees to the Federal Trade Commission, Senator Maggie Hassan of New Hampshire questioned whether children are "addicted to gaming and activities like loot boxes" (Jilani). That these newly introduced features "might make them more susceptible to addiction," she continued, "is a problem that merits our attention." Some states have begun to take steps toward regulation as well. In Hawaii, "one set of measures would require special labeling on games that offer [loot boxes], while another would outright ban the sale of such games to consumers under the age of 21" (Jilani). The author of that legislation, State Representative Chris Lee of Oahu, says: "I've watched firsthand the evolution of the industry from one that seeks to

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create new things to one that's begun to exploit people, especially children, to maximize profit"
(Jilani). In South Korea, the Fair Trade Commission has levied fines against game developer
Nexon for marketing loot crates during a limited event involving Valve's *Counter Strike Online
2* (Crecente).

The process of designing addiction increasingly seems to rely on cultivating fun$. In the
system constructed by Blizzard, value produced by play exists in controlled and restrictive
situations and is only usable within preexisting platforms. Fun$ appears to inculcate players into
a constant experience of seemingly profitable play. Players feel rewarded for their play and have
opportunities to use their profits from play. However, like the industry profits of casinos dow
Schüll describes, the value generated through the fun$ experience fuels profits for the developer
in exchange for the labor performed through play. While fun$ creates a player experience aimed
at making play feel profitable by producing virtual value, at its extreme it can induce players to
treat play as a dangerously compulsive ritual. For Blizzard and their recent history of
development, the ideas of games as a service platform reconfigures play as a means to generate
currency, which can be used to buy more loot crates or booster packs from the developer. Fun$
emerges in this scenario by immersing the player in an experience where acquiring more virtual
goods is reward for their value generated. As this project progresses, I will turn from recent
history to its larger implications, taking up the question of who generates value, and for whom.
In the next chapter I take up esports, and with it the most concrete form of professional labor in
computer game culture.

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Chapter 3: Esports and Playful Work

The previous chapters emphasize much of the economic activity players enact within games in terms of both ludic systems and currency manipulation. Discussions in Chapters 1 and 2 approach play as economic action, but do not expressly consider labor and work, on which the present chapter will focus. In contemporary computer game culture, players frequently generate value through in-game action, a possibility some developers, such as Blizzard Entertainment (Chapter 2) have attempted aggressively to contain within a closed loop of circulation. Chapters 3 and 4 consider how play can generate profit and productivity in two domains: professional computer game competitions, or esports; and the rise of on-line video streaming. The emergence of professional play presents an opportunity to examine computer games as a site of labor in a more classic sense.

Professional play occurs in many kinds of games. Poker and chess offer prominent examples of games for which there are professional circuits and tours. While I give special attention to recent developments in esports, professional video and computer game competitions have been occurring for decades and reflect a range of game genres. One of the longer running professional gaming events is the Pro Tour for the collectible card game *Magic: The Gathering*. Started in 1996, the Pro Tour draws players from around the world to compete in various events throughout the year. In his writing on the *Magic* professional's lifestyle, *Magic* professional Christopher Morris-Lent reveals a common joke among players in which the "Pro" in Magic Pro Tour stands for "Promotional" and not "Professional" (Morris-Lent). As Morris-Lent notes in his conversation with an employee from *Magic*'s publisher HASBRO, "The [Pro Tour] is Magic's advertising budget" (Morris-Lent). This idea of professional gaming as a marketing activity for developers and publishers is fundamental to any economic understanding of esports. Recognition

of this convergence of interests offers a starting point for thinking about the potential roles and functions of esports.

While *Magic the Gathering*'s pro circuit parallels esports in many ways, this chapter focuses on the esports ecology of Multiplayer Online Battle Arenas (MOBAs). In this chapter, I examine the structure of MOBA esports mainly through two games: Valve Corporation's *Dota 2* and Riot Games' *League of Legends*. Focusing on MOBAs provides an opportunity to consider the mainstream popularity of esports and thus the financial impact of the genre. MOBAs frequently draw the largest audiences for their broadcast events, compared to Valve's *Counter-Strike* or Blizzard's *Hearthstone*[12], and I am particularly interested in how the recent history of MOBAs has intertwined itself with rise of streaming services like Twitch.tv[13] (discussed in its own right in Chapter 4). MOBAs are by no means the first point of entry for esport; that honor goes to real-time strategy games, like *Warcraft* and *Starcraft*; yet MOBA developers have clearly pioneered in terms of business models. MOBAs exemplify the way esports manufacture power relations between developers and players, both professional and casual, through the organization of competition (leagues) and spectatorship. Early real-time strategy esports lacked the teams and multi-team organizations found in contemporary MOBA esports. Real-time strategy professionals were often single players in search of sponsors; MOBAs rely on teams and organizations for support, and this project considers how those organizations manage professional and casual players alike. My focus on MOBAs allows a look at how two developers

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[12] A recent *League of Legends* Tournament reports peak viewership as 127 million during its finals (Meyer). *Hearthstone's* recent finals has peak viewership just over 1.8 million (Esports Charts). This data includes international broadcasts and platforms.
[13] Twitch.tv is a platform allowing for gamers to broadcast their gameplay. Over the last few years, it increasingly serves as a nexus for esports content. YouTube offers a similar platform in the west. Afreeca.tv is popular South Korean streaming platform, and Douyu.tv is a Chinese platform.

have sought to stabilize professional play for different purposes. With Riot and *League of Legends*, stable professional competitions become sites of potential investments for developers and team owners. In the case of Valve and *Dota 2*, professional play serves to generate productivity from fans and nonprofessional players. In both cases, MOBAs typify what happens when esports schemes enlists investors from outside game culture and make players, both professional and nonprofessionals, sources of value for their games. Understanding the appeal of esports as an investment underlines the potential profitability of productive play. While the popularity and financial scale of MOBAs remain significant, my focus on the genre explores the ways in which esports redefine the relationship between players, play, and work in ways not explicitly seen in other genres.

I find MOBAs indicative of computer game culture's growing neoliberal trend[14]. In understanding an admittedly broad concept like neoliberalism, I identify two elements I see as essential to MOBAs. First, value is monetized. Haiven identifies "money…as an indisputable and mandatory quantitative measure" as part of neoliberalism's impact ("Finance as Capital's Imagination" 99). In MOBAs, success and failure is measured by in-game currency (called "gold") acquired during play. As players kill monsters and the avatars of other players, the game rewards a player with gold they use to buy items that empower their character. In other words, a player's score in a MOBA is reflected by the amount of money their character is worth at the end of the game. While not completely identical with the economic value typically associated with neoliberalism, this system of valuation clearly reflects its core logic. Second, I see "neoliberalism's hyper-individualized social imaginary," as Haiven describes it, as

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[14] This neoliberal transformation has become more apparent in 2018 as the king-of-the-hill genre as grown in popularity, where the one-person-versus the-world ethos is defining characteristic.

characteristics of MOBA culture ("Finance as Capital's Imagination" 100). In effect, despite being ostensibly a team game of five versus five, a MOBA often functions in effect as a game of one versus nine – the player versus all other participants in the game, irrespective of ostensible alliance. A team works largely to limit an individual player's success, creating a distinct tension between individual and shared interests. This valorization of players through money, combined with radical individualism, again underscores the inherent neoliberalism of MOBAs.

Sebastian Möring and Olli Leino examine the neoliberal condition as it manifests in computer game play. Their analysis focuses on free-to-play games, which as they see it "cater to millennials who do not know a non-neo-liberal world" (154-155). *League of Legends* emerges from the same epoch. For Möring and Leino, the neoliberal ethos found in computer game culture "does not distinguish between work and play because work and play are equally an accumulation of human capital" (154). The neoliberal ethos constructs play as "appearing meaningful as an investment geared towards possible future gains rather than as a pursuit of immediate gratification" (154). Möring and Leino discuss the function of badges and achievements as neoliberal features because they reflect the "idea of accumulation and appreciation of human capital" (155). This notion of achievements and badges parallels Haiven's emphasis on quantitative measures in neoliberalism. Haiven and Möring and Leino outline the neoliberal possibilities I identify throughout MOBA play and culture. Play as a potential investment and a means of accumulation are key to how I understand the MOBA as indicative of neoliberal culture.

For this chapter, understanding how esports organizations function suggests how 21st century labor practices in games reorient the management of labor. This chapter examines the value created from the play of esports as essential to investigating the role of capital in computer

game culture. It is not enough to see esports contestants as professionals; a thorough understanding of capital's agency in computer games needs to explore how play generates value and where that value ultimately goes. This chapter establishes a framework for studying esports so it can be understood in relation to Marxist labor studies.

Part of this project means attending to the power relations produced by the rise of esports. While the play of professional individuals clearly counts as labor, because they are compensated, there is more to say about the nature of this particular labor. Understanding the role of capital in esports also raises the ideological implications of spectating professional play – effects at the level of consumption as well as production. I believe esports represent a marketing tool aimed at cultivating habits of perpetual play in its audience, similar to those discussed in Chapter Two. Here, however, I see developers making professional play aspirational for nonprofessional players and inculcating all players into an ethos of professionalized play.

Esports Defined

The name esports, synonymous with electronic sports, eSports, or e-sports, most succinctly refers to "an organized and competitive approach to playing computer games" (Witkowski 350). Emma Witkowski suggests many reasons why playing computer games should be considered sports. She identities four prominent characteristics of sports and locates them within the discourse around esports. According to Witkowski, sports are physical, have rules, involve competition, and are officially governed (355). While Witkowski explores how professional gamers perform sports in a conventional sense, I am not mainly interested in that line of inquiry. For this project, I already accept esports as sports, and more importantly, I understand that the form of play found in esports explicitly involves work and labor. An approach to esports-as-sports might focus on rules and other conditions governing professional

play. I will instead examine the conditions of financial participation in esports, concentrating on MOBAs as a particularly instructive case. I emphasize the monetary governance of esports, which includes player salaries, league fees, team costs, and prize support as one way to understand the financial dimensions of esports.

Before proceeding into a discussion of the various structures of esports, I want to lay out foundational texts and clarify the kind of material on which this chapter draws. The fact that esports are a relatively new activity, in the process of becoming a major business, makes it appropriate to explore them through critical economic theory. The first major study to date is T.L. Taylor's *Raising the Stakes: E-sports and the Professionalization of Computer Gaming*[15]. Published in 2012, the book offers an ethnographic approach to esports as a community, intended as "a kickoff contribution into a conversation and a body of research that look seriously at competitive high-end computer gaming" (2). Taylor's work provides a basis for the analysis and critique developed in this chapter. However, in the six years since publication of her work, MOBAs and other developments in game design have fundamentally reorganized esports as a business. Taylor provides an optimistic view of esports as a transformational force in culture. For example, she often discusses the financial limitations on sponsors, attributing sponsorship mainly to industries auxiliary industries computer games, like vendors of peripheral devices (155). To some extent these companies remain the most common sponsors, but the major "lifestyle" brands

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[15] Over the last several years esports scholarship has rapidly grown. For Example, Emma Witkowski explores esports by trying to understand it in relation to sports in "On the Digital Playing Field: How We 'Do Sport' With Networked Computer Games." Boluk and Lemieux understand esports in relation to their concept of the metagame in *Metagaming*. Nicholas T. Taylor has multiple pieces exploring the rise of *Halo 3* esports. However, much of the early work on esports explores them within the context of large conventions or LAN parties, or local area networks. This chapter aims to understand esports once their reliance of LANs and conventions subsides, and broadcast content becomes the norm.

Taylor found absent from the industry have indeed begun to appear. State Farm, Geico, Snickers/Mars, and Bud Light have taken on larger sponsorship roles within esports in recent years. These examples show how the industry has begun to leave its infancy and interact with other parts of consumer culture. While Taylor's work is foundational, it needs updating to account for the increasing economic integration of esports. Taylor understands esports as a distinct system coalescing around community organization and motivation – essentially a bottom-up or player-initiated phenomenon. Since the publication of *Raising the Stakes*, professional developers have taken significant control away from the community, giving esports an organizational structure that is both more formal and more influenced by corporate practices. While the player community remains a vital part of esports' fan base, the control exerted by developers in recent years reflects an attempt to establish power relations over players.

Despite limited attention to esports from scholars, an array of writing on the subject has come from journalists. While no replacement for academic critique, journalism provides fertile ground for thinking about esports' current moment. This chapter will draw from ESPN, DotEsports and other sources throughout. Journalist Roland Li's *Good Luck Have Fun: The Rise of eSports* historicizes the last few years of esports. His account recognizes some of the recent changes in the industry taking place in the years since *Raising the Stakes*, and unlike Taylor, Li discusses *League of Legends* and *Dota 2*, two examples of the MOBA genre that have redefined esports in years after Taylor's *Raising the Stakes*[16]. He shows how different games cultivate distinct approaches to esports, while Taylor tends to flatten out the differences between games to discuss esports as a whole. Li offers a discussion of MOBAs and considers the implications of

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[16] While competitive MOBAs from this chapter are recent developments in esports, the ur-MOBA Defense of the Ancients had competitive community run leagues and tournaments beginning in 2004 (V "ick" V "History of DotA").

the genre on esports. In contrast to Taylor, Li is at best guardedly optimistic about esports. He suggests "the most critical factor in the success of eSports is the passion, if not the obsession, of the players, tournament organizers, investors, game developers, and, above all, the fans. They made it possible, and their flaws and struggles have made esports an imperfect phenomenon" (3). In what follows I will further explore the imperfections of esports as represented by MOBAs, particularly as esports come increasingly under the sway of larger economic interests.

The last major set of sources on which this chapter draws is promotional material created by teams and game developers. These texts include announcements, esports broadcasts, and self-help books written by teams and coaches. Announcements and broadcasts provide examples of developers' roles in managing and producing esports. They function as primary records, depicting esports events as they happen.

Recognizing the array of texts discussing esports highlights the scope and scale esports have attained in recent years. One cannot simply think about the industry without considering these various perspectives contributing to its development. The mix of academic, journalistic and industry objects provide a clearer picture to the current situation within the industry as it relates to work, play, and money. As this chapter progresses, I will return to these texts to better situate the structures and forces interacting within esports. Players, organizations, and developers all contribute to the current esports climate, and this chapter will examine how each of these operate within the industry.

MOBAs in Focus

While first-person shooter, strategy, and fighting games have vibrant and interesting communities, from which esports either have already arisen or might someday evolve, MOBAs are the main focus in this chapter. These games provide massive systems of assets and rules,

operated by large, sophisticated communities, and thus bring important financial and ideological

implications. By concentrating on the MOBA genre, I reveal how capital organizes the

intricacies of esports instead of attempting to reconcile the differences found throughout various

genres. In addition, the popularity and monetary connections to other institutions found in

MOBAs are unique conditions for examining neoliberal influences in game culture.

MOBAs (multiplayer online battle arenas) are competitive team games. Players form

teams of five, with each player operating a character or avatar, known as a "hero" or "champion"

depending on the respective MOBA. (For the sake of consistency, I will refer to the player

characters regardless of game as heroes.) Heroes come with a large variety of skills and

limitations and can assume many roles in gameplay. To win, one team must destroy the other

team's central base. Games take place on map with three lanes defended by turrets. On both

sides, non-player characters called "minions" march down the lane toward the other team's base.

Turrets will shoot at minions and heroes; one strategic element of MOBAs is using minions to

absorb a turret's fire while the hero destroys it. Players must kill the opposing minions to defend

their base, but this process also yields experience points and gold which players can use to

upgrade their heroes. To gain access to the base, the turrets defending the base must be

destroyed, which usually takes from twenty minutes to an hour.

While variations on this formula exist throughout the MOBA genre, these features define

the prevalent basics. Li describes the key mechanic of MOBAs as "last hitting," "which requires

the player to time an attack to deliver the [final or killing hit to a minion]" (108). While

eliminating opposing heroes is more exciting, acquiring gold by slaying minions is the

"backbone of becoming more powerful" (Li 108).

Historically, MOBAs have their roots in a single game modification or "mod." Games mods are variations in games that can alter appearance, performance, or function. They come in a multitude of forms. For example, game mods can be used in *World of Warcraft* to alter the game's interface and thus how information is communicated to player. Game mods can also be fairly robust and create new games out of existing ones.

This chapter is not concerned with game mods per se, but it is worth noticing how this practice reflects trends toward maximization of profit and recruitment of player labor, which are central to my discussion. While writing broadly about the production of game mods and mod culture, Walt Scacchi highlights the potentially symbiotic relationship between modders and developers. He writes: "it might seem the case that game vendors would seek to discourage users from acquiring [developer] tools," but game developers "are increasingly offering software tools for modifying the games they create or distribute, as a way to increase game sales and market share" (16). Scacchi suggests game developers use mods and mod culture to prolong the lifespan of a computer game by giving modders the tools and opportunities to create new ways to play existing games.

Though differences exist between the two MOBAs under discussion here, *League of Legends* and *Dota 2*, they share the same design lineage. Both MOBAs appeared as successors to an earlier mod for Blizzard Entertainment's game, *Warcraft III*. This original mod was called *Defense of the Ancients*, or *DOTA*. Li describes the origins of *DOTA* in *Good Luck Have Fun* as "culminating in 2005 [under] the stewardship of Ice-Frog, a mysterious developer whose real name has never been revealed" (107). Mods give player communities a way to exert ownership of games. Players take control of development and produce content for their communities, largely or entirely independent of corporate interests. But as Li notes, having a mod rooted in an

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older game limits its potential for development (109). In many if not most cases, mods cannot be played unless the player owns the original game. Mods that exist in this form are at the mercy of the original designers, who may change their underlying code in ways that disable mods. *League of Legends* and *Dota 2* attempt to legitimate the MOBA as fully realized games, not simply mods.

As suggested above, game modding has important economic and business implications. Julian Kuchlich examines how mods generate value for the computer game industry without incurring labor costs for the developers. Modders can take risks "the industry itself shuns" (Kuchlich 1) -- but even strongly positive returns on these risks rarely result in payment or employment by the original developer (with some important exceptions). Kuchlich argues, "modding represents a form of unpaid labor veiled by the perception [that it is] a leisure activity, or simply as an extension of play" (1). He argues the collapse of work and play seen throughout entertainment industries and game culture constitutes a new hybrid he calls "playbour." In effect, modding as a practice increasingly looks like unpaid game development, design, and maintenance of the sort commonly found in 21st century computer games.

While playbour is a functional concept for understanding modding culture, it maintains to some degree a separation between work and play because while it gestures toward a hybrid of the two practices, they nonetheless remain distinct. Making a mod is design work, creating conditions for subsequent play. Work is a precondition for play. The remainder of the discussion in this chapter, turning from first-generation mods to second-generation MOBAs, will move past this sequential hybridization to consider play and labor in terms of more complete combination or fusion.

Valve Corporation, developers of *Dota 2*, have their own history with modding: each of their major game titles seems to have its roots in a mod. Gabe Newell and Mike Harrington started the company (then called Valve Software) by developing a mod for the first-person shooter *Quake II* called *Half-Life* (Kuchlich 2). Valve's other major successes also have their roots in mods. Kuchlich details how *Counter Strike*, a mod for *Half-Life*, became a well-established and maintained brand (2). Valve's corporate identity and perhaps ideology appear intertwined with mod culture. As a developer, the company identifies successful mods and develops them into highly profitable "triple-A" games. Unlike other major developers, Valve typically offers mod developers employment as they work on final versions; though even in these cases, the company profits from enormous amounts of informal, unpaid labor that go into the early development of the mod, often contributed by individuals who are never brought on board. While one or two games developed might constitute an anomaly, virtually all of Valve's games have their origins in mods for other games. Many may argue those mods just reflect the prototyping process of game development, but *Counter Strike* and the original *DOTA* represent successful mods with large followings and dedicated modders keeping the games up to date. Valve's exploitation of the precarious and free labor of mod culture appears to be one of its defining characteristics as a company, and this exploitive ethos appears equally evident in their development and management of *Dota 2*'s esports environment.

Understanding mod culture and Valve's appropriation of mods provides insight into the rise of esports as a growing financial endeavor. For Valve, game mods appear as foundational roots for game franchises. In other words, the free labor of people outside the company becomes their source material. *Dota 2* is a direct sequel to a non-commercial game mod released in 2005. As Taylor explains at length, esports have clear origins as a community-organized activity, but as

more companies seek to take control, esports become increasingly corporate enterprises with community members relegated to fan status. Modding and esports involve fans performing uncompensated services that ultimately generate value for developers. Whether this work extends the life span of a game or generates greater spectatorship, the economic logic is the same: communities freely produce value to the benefit of developers and publishers. As esports develop into a lucrative investment, value produced by play becomes sought after by entities outside any player-centered notion of game culture.

While not solely a phenomenon of the internet, the recent popularity of esports has been made possible by a merger of gameplay and spectatorship enabled and enforced by corporate software platforms called *game clients*. Merging activities is possible as game developers make online services to sell and market their games. As in the interconnected economy of Blizzard described in Chapter 2, the client software behind *League of Legends* and *Dota 2* conflates spectating, playing, collecting, and buying in the affordances of one program. For both Riot and Valve, the game client operates as singular place to engage in all activities pertinent to their MOBAs.

A major contribution to the understanding of game platforms and MOBAs has come from Boluk and Lemieux, whose work *Metagaming* has already been mentioned. Boluk and Lemieux approach esports as a form of metagame, by which they mean a "broad discourse, a way of playing, thinking, and making that transforms autonomous and abstract pieces of software into games and turns players into game designers" (9). Metagaming "accounts for those external rules or social customs built, in, on, around, and through video games" (Boluk and Lemieux 228). Their work aims to understand a wide array of the practices games allow, and is to a large extent consonant with the current discussion. However, there are important differences between their

metagaming approach and the one I offer here. Concentrating on cultural productions surrounding games can lead to an excessively broad focus, ultimately describing more about game culture and play than is helpful for critique. At a certain point, following Boluk and Lemieux's thinking, nearly anything seems describable either as a metagame or a direct derivative of that concept. In their analysis of *Dota2*, for instance, they use "metagame" as it is understood in that player community: an abstract system of strategy and selection that informs play in the MOBA (215). Elsewhere in their study, Boluk and Lemieux write of a "standard metagame" governing assumptions about the way *all* games operate, not just MOBAs (280). While there may be some connection between these usages, there is also a large contextual gulf. Stretching "metagame" metaphorically across such gaps makes it inevitably tenuous.

I prefer to concentrate on more direct and focused relationships between commercial games and the economic environments in which they take place. This is a matter of basic orientation. Seeing many if not all game phenomena through displacement or difference (the core meaning of *meta*) elides too many practices that are not outside modern gameplay, but rather extend through it into a larger social and economic sphere. I am concerned with the kind of practices games enable, but rather than asking what games allow outside of institutional structures, I seek to understand how games create the conditions for economic performance and value generation for developers. By focusing on the game industry and more precisely the esports industry, I develop a critique of play and game consumption as a source of productivity and profitability.

Class Considerations in Esports

Traditional Marxist perspectives and their 21st century updates can help develop a more effective framework for critiquing esports as a power structure. In *Capital,* Marx provides a

template for thinking about value and profit in a manufacturing setting as it pertains to class structure. Marx depicts two classes, the proletariat and the bourgeoisie. The proletariat class contains the laborers, while the bourgeoisie often are the owners of the means of production. Much of what Marx laid out has been updated by contemporary Marxists. McKenzie Wark suggests the contemporary stage of capitalism has a vectoral class and a hacker class, instead of bourgeoisie and proletariat. The vectoral class no longer owns the means of production, but "control…vectors along which financial information flows" (*Telesthesia* 72). The vectoral class represent a group of managers who are more interested in controlling the access to information and opportunity than the actual technology or tools that produce them. Wark suggests *World of Warcraft* is "the fantasy version of the power of the vectoral class perfected. You pay to rent everything, and they can deport you at any time" ("Considerations…" 71). At its core, vectoralist power concerns managing access and flows of information.

The hacker class contains laborers who only work to make intellectual property ("Considerations…" 71). Wark suggests the hacker "makes something new out of property that belongs to everyone in the first place. Information wants to be free but is everywhere in chains" ("Considerations…" 73). In a sense, the hackers described by Wark strongly resembles the modders and game mod culture described earlier: hobbyists creating intellectual property freely available to the public. However, this free content rewards the vectoral class, who in this instance are the original developers and publishers, by furnishing additional game content that increases the value of their underlying intellectual property. This exploitative relationship persists throughout game culture, and in Chapter 4, I will examine Twitch streamers as potential members of this class. When it comes to esports, the vectoral class seems to expand to include various managers of intellectual property, but the hacker class appears difficult to identify.

Ultimately, I believe the vectoral class includes all members of professional esports, including players, coaches, mangers, owners, and the game developer. All these entities aim to control, discipline, and exploit a hacker class that consists of the nonprofessional players of a game; esports is in this sense a management tool applied to a game's player population.

Boluk and Lemieux adapt Wark's vectoral/hacker framework for their account of *Dota 2,* Valve, and esports. For them, Valve constitute the vectoralists; players are the hackers. They suggest "the precarious labor of players is not a form of currency, but an undercurrency driving a deluge of vectoralist management strategies" (208-9). The standard of value in this system is productivity. They suggest that play for pleasure is not explicitly relevant to the system; it does not govern or motivate the game industry. For that vectoral regime, "there is no hobby. There is no fun, there is no work: only productivity for the player, laborer, and even millionaire manager alike" (Boluk and Lemieux 269). Their description of the situation feels useful for describing what Blizzard does with its unified game economy, and when applied to esports, it reveals how this activity serves as a potential marketing device that drives productivity in the player base. While the labor of professional players is precarious, the value of an esports brand endures. This chapter seeks to understand what precisely is at stake for esports in game culture, and how the esports and game industries are more overtly concerned with literal currencies and economic exchanges than metaphorical undercurrencies.

League Structures, Tournament Circuits, Labor Markets

While *League of Legends* and *Dota 2* are intrinsically similar games, the structures of the professional play set forth by Riot Games and Valve Corporation reflect contrasting philosophies for managing game-related labor markets. By examining the how these developers regulate their games' esports, this section questions the role game developers play as labor regulators. While

they are not direct employers of esports professionals, game developers set policies for professional play that determine the labor conditions of professional players. By setting the conditions for labor for people other than their own employees, esports increase the determinative power of game developers. Esports force the games industry to perform multiple roles as regulators and curators of leagues, players, and teams associated with their games. By examining esports leagues and their governing rules, I will show how game developers control the labor market of professional play.

With *League of Legends*, Riot Games aims to provide a stable esports product for their consumers and professional players. Riot constructs and maintains a number of leagues across the globe, and while the company employs the support staff including referees, administrators, and announcers, the participating teams are responsible for employing and paying players. The member organization operate as separate businesses participating in the league. For example, there are the North America and European League Championship Series, while South Korea has the LCK, or *League of Legends* Champions Korea. Riot also runs leagues in the People's Republic of China, Taiwan, Japan, Brazil, Turkey, Australia, and Latin America. These leagues provide Riot a platform for an international product. Riot sets for rules for each of the leagues, and either employs its own production staff or partners with local companies. For example, North America and Europe feature broadcast talent developed and employed by Riot Games. In Korea, Riot partners with local esports content producers OGN, which is a television channel specializing in computer-game-related programming.

Originally, Riot organized their leagues on the model of international soccer, with competitive ranking allowing for promotion and relegation between leagues. Ten teams were selected for the League Championship Series, and six teams were relegated to a lesser bracket

named the League Challenger Series. These numbers were the same for Europe and North America. Relegation was added to the Championship Series in 2014 as an automatic process in which the bottom two Championship Series teams were exchanged for the top two teams of the Challenger Series. Promotion and relegation provided teams in the Championship Series an incentive to win in order to avoid relegation to the lower league. With this model, esports organizations developed teams that participated in various league qualifiers to join the Challenger series and eventually attempt to join the Championship Series. Riot and the various esports organizations running Championship Series teams did not operate as overt partners.

In 2016, Riot transitioned away from this automatic process in favor of a best-of-five, promotion and relegation tournament. At the time, Riot believed the tournament structure would "gradually reduce the relegation risk that Championship Series teams face to encourage greater stability of the league year-over-year, as well as helping Championship Series organizations attract longer term sponsors" (Rozelle). While the promotion and relegation model of the early days of the Championship Series may have offered compelling tournaments at season's end, it did not provide the financial stability teams needed to make meaningful profits, which forced some teams to disband or release key players to others. Riot's newer scheme addresses some of this instability.

In tandem with the collapse of teams, promotion and relegation manufactures volatility in the labor market as well. Players find themselves without teams after they disband, and talent shifts between regions as they search for opportunities. In tandem with players looking for opportunities, some international teams perceiving the North American and European Union Championship Series as easier competitions would move their teams from the Chinese or Korean regions for an easier path to success. In 2014, Riot attempted to regulate the international labor

market of *League of Legends* by restricting the number of non-resident spots a team could

have[17]. Following Chinese team LMQ's move to qualify for the North American Championship

Series in the summer of 2014, Riot included a two-player cap on "import" players (Monique). As

a labor regulation, this move appeared fairly benign at the outset, but the regulation sought to

provide more opportunities for region residents and control the reduce flow of international

talent to and from other regions. Riot thus began to take the form of a trans-national labor

regulator, defining the success of esports athletes in regional terms. Similar moves toward

"region locking" can be found in other esports, and I believe they highlight esports'

transformation into a site of investment. That said, stabilizing the labor market provides stability

for teams to recruit talent and gives players a clearer path toward employment.

In 2017 and 2018, Riot transitioned the North American Championship Series away from

promotion and relegation and towards the franchise model found in U.S. professional sports[18]. In

North American professional sports, franchised teams are secure in their position within a

league; they can only lose league affiliation in extreme circumstances. In effect, franchised teams

are permanent organizations and businesses that operate as stable investments, providing

consistent revenue for their owners. A *League of Legends* franchise represents a permanent spot

in the Championship Series and an attempt to eliminate risk as it relates to the financial

participation of esports for players and investors. Martin discusses investment risk as the

"measureable probability of an occurrence," risk represents a "rhetoric of the future that is really

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[17]Riot defines a resident as someone who plays in their country of citizenship or a noncitizen
who has played for teams in a region for four consecutive years. A similar rule exists the highest
league of English soccer the Premier League, where teams must have a minimum 8 players who
are home grown.
[18] A similar process of franchising occurs in Blizzard's *Overwatch*, and Blizzard similar aims to
make esports feel more like traditional sports (Lindbergh).

about the present; it is a means of price setting on the promise that a future is attainable"

(*Financialization of Daily Life* 105). For investors, the reduction of risk quickly makes esports

stable investment. Reducing risk for players means esports' stability allows an esports career to

appear more feasible. This applies to professionals and nonprofessionals. Professionals players

receive assurances about the careers becoming permanent because they worry less about their

teams ceasing to operate. For nonprofessionals, the Championship Series' entrenched franchise

make fandom less of a risk, i.e., a team will not fold, allowing for increased commitment to an

organization[19], with franchises representing potential future employers for players aspiring to be

professionals. Franchising aims to provide greater stability for organizations, investors, and

players, but at the same time it requires increased investment from these parties.

Esports competitions generate revenues in the tens of millions of dollars, largely through

advertising, sponsorship, and merchandising. While precise evaluations of the *League of Legends*

esports market are unknown, Riot's parent company Tencent has recently sold the streaming

rights for League of Legends to BAMTech, a subsidiary of the Walt Disney Company, for 300

million USD (Needleman). The entry price for team franchises is correspondingly high. Riot

used 2017 to solicit applications for franchise spots, open to existing teams and outside parties. A

franchise cost $10 million, and any new remembers were required to include an additional $3

million to compensate any teams not retained from the 2017 season. The ten franchised teams

will share a portion of revenue with other franchises and with Riot. Riot argues revenue sharing

will align the interest of organization and create a more competitive environment. By moving

towards a revenue sharing model like those used in traditional professional sports, franchised

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[19] This commitment occurs in the purchase of merchandise like jerseys, t-shirts, branded
computer peripherals, or in-game cosmetics.

teams will become less reliant on sponsorships and tournament winnings to fund their operations, alleviating potential risk.

For players, Riot believes franchising will increase opportunities and give them a stronger voice in determining the future of the Championship Series. With the elimination of promotion and relegation, the Challenger Series has been disbanded. In lieu of this opportunity for new competitors, each franchised team will maintain a five-player academy team, consisting of players being developed for the organization. Academy team players can be promoted to the first team, used as substitutes, or have their contracts sold to other organizations seeking to upgrade their rosters. The academy teams will compete against each other with some games being broadcast and other released as on-demand videos. The academy teams can only have one international player because Riot sees the academy teams as an opportunity to develop players specific to the region. The single international slot allows the player to acclimate to a new region and language before beginning competitive play in the Championship Series. In addition to adding more paid roster spots through the academy teams, Riot is also planning a player's association resembling those of traditional sports. Riot will fund the launch of the player's association, whose goal will be to provide the players with independent representation in potential labor negotiations. While it remains unknown how the player association will function, it seems notable that Riot has taken the lead in its formation: whenever a workers' body is organized by management, a certain amount of skepticism seems warranted. With the player association under Riot's initial purview, the interests of the group may lie in keeping the Championship Series viable. Riot's decision to be initial organizer of the association aligns the player's interest with their interests, or those of the vectoral class. With this move he players, in Wark's terms hackers manipulating intellectual property, become extensions of vectoral power.

Esports aims to systematically and structurally exert vectoral power over an array of players. For Riot, professional players must be aid the proliferation of vectoral interest and become tools to inculcate nonprofessional players.

By taking more over control over the various international leagues, Riot assumes an active role in production of the commodity that is *League of Legends* esports. At first the shift to the franchise model may seem to contradict this observation, since it invites more participants into the management of the Championship Series, but there is more to the business of esports than just tournament competition. The primary product of esports is audience entertainment, delivered not through the old medium of radio and television broadcasting but the newer mode of digital streaming, using online services like Twitch.tv. Riot's control over stream production ensures oversight of the product to balance any loss of control through franchising. It also allows for more of the revenue generated through streaming to be shared among the teams. For *League of Legends*, franchising recognizes professional esports as a shared endeavor for multiple parties with revenue sharing built into the organization of the league. Riot, teams, and players share in profits of tournament revenue. For Riot Games, value produced by professional play is meant to enrich investors and the game developers.

Valve Corporation's *Dota 2* esports stand in stark contrast to the stability sought by Riot Games' move toward franchises and control over international leagues. In 2017, *Dota 2* esports underwent a series of changes and transformations; but unlike Riot, Valve did not push the game's esports activities toward structured leagues. For *Dota 2*, all the tournaments in a given season revolve around the world championship called – with huge ironic resonance for any

student of Marxist history[20] -- "The International." The International is one of largest esports events in the world, and often features the largest prize pool. In the 2016-2017 season, The International's total purse was $24,787,916. The derivation of this number will be examined later, but for now, the size of the payouts will show why teams and players are committed to *Dota 2* esports. Valve uses The International to organize much of the competitive season around numerous major and minor tournaments that lead up to the main event.

Prior to the 2017-2018 season, Valve would invite teams to The International, a practice that did not provide meaningful transparency to teams or fans. The International's massive prize pool encouraged teams to do everything they could for an invitation. Beginning in 2017-2018, Valve aimed to introduce more transparency to the process by replacing invitations with a system of qualifying points. Rather than organizing major tournaments, Valve will sponsor many third party-tournaments run by other organizations and entities. Teams competing in these events will earn Qualifying Points, which will become the "sole factor in determining invites to The International 2018" (Dota Team). In making the change, managers at Valve believe they can take a more "organic approach to growing the competitive ecosystem" (Dota Team). Tournaments will operate in two tiers, major and minor. Major tournaments require a minimum prize pool of $500,000 put up by the organizer, with Valve providing an additional $500,000. Qualifying points will be "awarded based on the total prize pool of a tournaments…with Majors giving more prize points per dollar" (Dota Team). In addition to putatively making competition more transparent, this transition allows Valve greater opportunity to profit from the productivity of other organizations mounting tournaments. Like Valve's aforementioned relationship to modding

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[20] The First International is a 1864 meeting of leftists, Marxists, and labor unions. Attended by Marx, this meeting aims "to set up a political organization that would audaciously aspire to forge a resistance to capital that would be as global as capitalism itself" (Høgsbjerg).

culture, their approach to esports organization reaffirms an intent to deploy the productivity of other organizations.

Rather than having stable leagues that feed into international events, as in *League of Legends*, Valve structure their esports around tournaments with large prize pools. This structure reaffirms the risk that franchised teams avoid through revenue sharing. Journalist Ethan Gach suggests the "driving principle [of *Dota 2* esports remains] eye-catching prize pools." This position contrasts with *League of Legends*, which "has a tendency to forgo massive, lottery sized payouts in favor of livable player salaries and some form of revenue sharing" (Gach). This structure creates "a few excellent teams [who are] well compensated, [but] the majority of players must scrape to get by" (Gach) In his reporting on Valve's changes to the tournament structure, Gach recognizes how Valve avoids stable protections for players and teams. Risk is still a defining characteristic of the competitive landscape for *Dota 2*, where esports will remain a volatile labor market as long as the rules and regulations encouraging tournament participation over leagues endure. The potential protections players enjoy via organized leagues like Riot's Championship Series make lower prize pools more acceptable, but leagues require oversight and management from a centralized entity. Valve have long avoided similar structures in their corporate setting, so it makes sense they would manage esports in a similar fashion.

While qualifying points add increased transparency to The International, their connection to money reaffirms Valve's relationship to money and spectatorship. Boluk and Lemieux argue "with *Dota 2* and The International, Valve is producing an electronic sports for a new kind of spectator and in the process has revealed a corporate metagame in which 'real contemporary money' has found new ways to imbricate itself within the industry, software, culture, spectatorship, and splay of video games" (210). In one sense, Boluk and Lemieux highlight a

similar thread as Gach; Valve uses prize pools as a driving force to market to audiences and organizes the competitive environment of play, but more needs to be said about how Valve transforms spectatorship and audience participation into audience productivity. Examining how The International drives its prize pools helps understand that shift, and with it what Boluk and Lemieux call the corporate metagame of money.

I will use the 2017 International as a revealing economic case. Again, the purse for that tournament was $24,787,916[21]. The derivation of this figure is worth examining. Since 2012, Valve has produced an in-game item called the Interactive Compendium, which was renamed the Battle Pass in 2017. These items function as expansions for the free-to-play version of *Dota 2* and provide players with content, game play modes, and other items. The Compendiums and Battle Passes themselves have variable values, expressed in levels players can earn by playing *Dota 2;* that is, a Compendium/Pass is more valuable to a player at Level 15 than at Level 5. Each level contains its own set of in-game items or currency that can be used for activities associated with the Battle Pass. The Compendiums and Battle Passes can be leveled up through player activity in-game, but in a break with the standard logic of play, level-ups can also be purchased. Twenty-five percent of the purchase price is added to the prize pool for The International. A starting Battle Pass cost $9.99 in 2017, giving some sense of the revenue possibilities. Valve provided an initial prize pool of $1.6 million for the 2017 International. Purchases of the Battle Pass added $23,187,916 to the prize pool. While much attention has gone to the record-breaking prize pools for the International, it is worth examining the other side of this business proposition as well – the remaining 75% of pass sales. Battle Pass purchases

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[21] As a point of comparison, the 2017 *League of Legends* World Championship has a final purse of $4,946,970. While the purse doubled due to the purchase of an in-game cosmetic, it remains a fraction of what The International offers.

produced $69,563,748 for Valve, in addition to whatever revenue the Passes helped generate in the form of streaming and in-person ticket sales[22]. The Battle Pass reveals the corporate metagame of *Dota 2* esports, and the object of this game is maximization. The Battle Pass provides players an opportunity to be more engaged in esports, bypassing organized leagues and franchise. At the same time this system of funding the prize pool consolidates profits for Valve, who use the playful engagement of their player base as productivity to inflate the purse – and their bottom line.

The Battle Pass introduces its own series of metagames for *Dota 2*, many of which revolve around money and digital currencies. The Battle Pass functions similarly to a game expansion – addition of content, characters, objects, and affordances. As the International has evolved, so has variety of content unlocked by the Battle Pass. The primary function of the Battle Pass is seemingly to raise money for the purse, but it also serves to revitalize player engagement with the *Dota 2,* preparing and motivating them to watch The International. Purchasing the 2017 Battle Pass unlocks a series of challenges for players to complete in exchange for experience points that level up the Battle Pass[23]. Leveling up the Battle Pass provides players with coins and in-game cosmetics, or additional visual upgrades for avatars and interfaces, found in chests identical to the loot boxes described in Chapter 2. 2017 saw the Battle Pass also change how people could play *Dota 2* by including a cooperative campaign mode, so instead of the typical five-on-five match, players could complete a series of narrative-driven challenges for in-game rewards.

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[22] Similar math can be seen from Boluk and Lemieux regarding the 2012 The International (324).
[23] The Compendiums of past The Internationals provided the same kinds of content as the 2017 Battle Pass.

The metagames of money, or perhaps more accurately currency, manifest once players start completing challenges and earning tokens. I want to avoid using the word money to describe what the Battle Pass provides because the tokens players earn do not perform the same tasks as money. Castronova's textbook definition of money is something that functions as a medium of exchange, a unity of account, and a store of value (*Wildcat Currency* 100-101). The tokens players earn do not have each of these functions in the ways that money is most commonly understood. The tokens allow players to make bets on their performance in *DOTA 2*, and players can bet their tokens on the size of prize purse for The International. A currency metagame emerges where players manage tokens in an attempt to generate levels for the Battle Pass through successful bets on their team's performance in *Dota 2*. Every week players receive weekly tokens through the Battle Pass; while playing a game, players have a forty-second "wagering period" during their game (*Dota 2*). Victory turns any wagered tokens into experience points for the Battle Pass, and those experience points potentially allow the player to level-up the pass. Beyond wagering on their own play, casual players can use tokens to wager on professional games on the *Dota 2* Pro Circuit, and successful bets on professional games grant experience points for the Battle Pass.

As a scheme aimed at generating a prize pool for the International, the Battle Pass crafts an experience that drives engagement with esports through nonprofessional play. Players must manage and manipulate tokens to maximize the potential rewards from their Battle Pass. This process encourages spectatorship of professional play through the wager of tokens against outcomes on the Pro Circuit. Understanding the functions of the Battle Pass reveals how Valve constructs and prepares its audience for esports consumption. The productive commitment

encouraged by regular play to level up the Battle Pass creates a culture of fans more invested in the game than in teams. The volatility of tournament performance also contributes to this effect.

Riot and Valve have taken different paths to attain stable control over professional play, and both developers establish power over players, professional and casual alike. Riot expands Wark's vectoral class by recruiting franchise investors from outside the company. As the chapter progresses, I will further explore how Riot deploys professional players to perform the work of the vectoral class and thus constructs nonprofessional players as the hacker class. In the classic Marxist sense, Riot embodies the bourgeoisie by owning the majority of production assets for professional play. If professional play represents the produced commodity, then Riot appears to own the tools enabling its production. With Valve, similarities appear, but it seems more obvious that esport activities for *Dota 2* are designed to cultivate productive play from nonprofessionals. Teams and events are not the primary commodities generating value for Valve, which is why Valve keeps those organizations outside the realm of ownership. Valve is the only owner of note for *Dota 2*, and all other organizations work for pieces of a prize pool overwhelmingly derived from investment of the player base. While the value generated through those competitions is useful for Valve, the primary goal of professional play is the generation of value through the engagement and productive play of nonprofessional players.

After examining how Riot Games and Valve Corporation organize professional play in *League of Legends* and *Dota 2* respectively, I see esports structured at two extremes. Riot seems keen on modeling themselves after other professional American sports with franchised teams, revenue sharing, and player stability. Valve emphasizes a boom-or-bust model for esports that aspires to make the audience the source of expanding prize pools but leaves no room for stable player salaries and teams. As esports is still in its first decade as a major source of revenue for

the computer game industry, it is not clear which model will make for a sustainable commodity; esports could simply represent a product launched before its time, or for a time that never comes. Regardless of what the future holds for the organization and structure of esports, the approaches employed by these developers reveal how esports open various strategies for managing the transformation of play into labor. The experience of Riot Games makes it clear that professional play is labor and is even moving towards something like unionization – a move that at least implies possibility of formalized owner-player relations. In contrast, Valve is using the productive play of nonprofessional gamers to generate value in its version of esports. Despite the apparent differences between these approaches, in the growing ecosystem of esports, it seems undeniable that anyone playing these games is working. The next section looks more closely at the conditions and organization of that labor.

Esports Teams and Organizations: Vectoral Power and Management of Play

We can identify three elements of esports central to this project: professional players, teams, and sponsoring or ownership organizations. The first two track closely their counterparts in traditional sports, but the third may be less familiar. Esports often involve a broader apparatus (the organization) managing multiple teams and sponsorships across multiple games and competitions. For instance, The European organization Fnatic, discussed in the previous section, sponsors teams for *Counter-Strike: Global Offensive*, *League of Legends,* and *Dota 2,* as well as some less popular games.

In terms of these elements, esports teams and organizations function as an intermediary between the professional players they employ and the game developers running leagues and tournaments. Teams are a combination of coaches, managers, support staff, and owners, who facilitate and prepare players for competition. Organizations are almost exclusively the domain

of owners. This section examines how organizations, teams, and players operate under the economic system of esports, further revealing how financial interests influence the development of the esports industry. Organizations and teams are obviously taking part in esports with the expectation of profits; this section does not seek to dispute that position. I want to know how intermediaries aim to profit from someone else's play of computer games and what that means for potential constructs of class in esports. As I seek to understand the relationship between work and play, a key consideration is recognizing the labor performed by multi-team organizations as part of their participation in the production of esports as a commodity. Their labor is not as obvious as that of professional players competing in tournaments and their configuration is less formalized than that of the leagues themselves. Organizations show vectoral power with particular clarity, managing the intellectual power of their players.

One of the quirks of esports lies in the way organizations are structured. Typically, an organization sponsors teams to compete across a number of games. Organizations thus have a remarkably broad influence on the development of esports. I am interested in the role organizations have played in transforming esports from community-driven enterprise and into an industry. Recognizing the disparate interests of teams and the organizations that control them will help illuminate the power relations central to esports.

Organizations ultimately manage players and create new opportunities for profit by finding outside investors and sponsors. As esports shifts towards an industry and business model, esports organizations are increasingly seen as investments. As discussed earlier in the chapter, Riot Games has moved away from a volatile structure for professional competition in *League of Legends*. This shift requires the presence of franchised and permanent spots in the game's professional league. Riot requires teams to purchase these spots with fees starting at $10 million

for existing teams and $13 million for new teams (Kishner). These fees make owning an esports team untenable for some teams unless they look for outside investment, and it provides business organizations without traditional ties to esports an entry point. With *League of Legends*, the 2018 season features new teams whose organizational foundations lie *within traditional sports* – a potentially momentous development for esports. Four of the new teams are owned and operated by franchises of the National Basketball Association (NBA)[24]. NBA teams enter "the esport marketplace to provide structure and content in a format familiar to traditional sport consumers" (Funk et al.). In a sense, these new owners aim to remake the esports experience into one that is closer, or at least more visibly related, to traditional sports. A number of other esports groups have solicited and received investments from other traditional sports organizations.

Esports have long been the purview of "geek" culture. Taylor describes the "geek" as a figure central to the perception of esports. She suggests "the young male geek, deeply fascinated by technology and focused on mastering it, has been a powerful cultural trope in discussions about gaming" (*Raising the Stakes* 240). Ultimately Taylor believes this trope is eroding, but it still colors much of the perception of esports as she saw it in 2012. She argues "the difference between traditional athletic sponsorships and pro computer gaming is that [esports] still struggles with breaking out of a 'geek' reputation and [attracting] lifestyle brands" (*Raising the Stakes* 156). As previously indicated, Taylor's analysis has become outdated because of recent, rapid changes in esports. In the early moment of which she writes, the most significant factor may have been the granting of professional player status to "geeks." However, I believe changes in

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[24] They are FlyQuest, 100 Thieves, Golden Guardians, and Clutch Gaming. They are respectively owned by the Milwaukee Bucks, Cleveland Cavaliers, Golden State Warriors, and Houston Rockets.

investment and patterns of ownership require more thorough rethinking of the "geek" element in esports.

Taylor compares esports owners to owners of traditional teams, drawing on an early essay on ownership in the National Football League (147-149). As with much of utopianism in *Raising the Stakes*, Taylor creates a kind of hagiography of the esports owner. She suggests owners' "commitments to e-sports can at times sound like a form of community service…[as] they regularly speak not only of 'growing e-sports' but of the power of computer gaming and their enthusiasm for it" (148). Taylor understands owners mainly as fans of computer games with the financial ability to fund a team. She argues: "the work owners do to support [e-sports]…are…an important helpful intervention for all gamers" (149). Taylor sees owners as part of the fandom driving the community creating esports, but as esports become more regulated and formalized by developers, the role, function and identity of owners change. Owners no longer represent an insider fandom closely identified with the player community. Once esports become profitable investments, owners can come from any moneyed sector of the economy.

Other than players, owners are the most public faces for teams and organizations. For Taylor these owners have typically been former players or active members of the community; but ownership of esports organizations has become much more diverse since her study appeared. Taylor describes the labor of owners as "hard for outsiders to recognize," but assigns funding the team and maintaining bureaucratic tasks as the core of the position (151). In Taylor's account, owners perform much of the team's scouting, hiring of new players, and ground support, often traveling with the team. However, in esports organizations at the close of the decade these roles are increasingly assigned to coaches and other professional managers, allowing owners to take on more purely promotional roles. This shift becomes notable as esports experiences an uptick in

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celebrity owners, who can promote their team and the world of esports on various platforms, but who may also work in traditional sports and entertainment.

For example, the team Echo Fox in the North American Championship Series is owned by retired NBA player Rick Fox. Fox founded Echo Fox in 2015 by buying a Championship Series spot from a team looking to divest. In an interview after his team's first season, he reflected that a "startup brings a period of intense hard work and dedication. The risk was mitigated by a strong team with a strong division and fueled by a belief and passion for the industry as a whole. The toughest part of [the] last split was having to watch weekly from Atlanta due to my NBA commitments and not being able to be there with the team" (Volk). Here Fox references a "split," which is *League of Legends* vernacular for half of a competitive season, spring and summer. Fox highlights how an owner's support becomes intertwined with making the entire industry successful, not just the team. He seems to recognize that sustainable success cannot just be tied to a team; he sees his presence at events cheering for his team and the league as integral to his ownership. This shift in owner responsibilities makes a pronounced departure from Taylor's characterization. While Fox reflects enthusiasm like that of the esports owners Taylor describes, he also represents a future for esports ownership where "jock" and "geek" converge. Once clichéd opposites, esports makes these tropes potentially indistinguishable.

In addition to being a "jock," however, Mr. Fox is also a multi-millionaire. Fox's personal wealth redefines the entry for owning an esports team; his access to personal wealth and ability to raise additional investment elevates the entry point for owning an esports team. When asked about how he is involved in the day-to day operations, Fox says: "Beyond working with the team, I work very closely with our front and back office as well…In the last seven months, I can't think of an hour of any day which has not been a conversation about eSports and Echo Fox"

(Volk). While the original owners may have been largely player-promoters, Fox represents a form of ownership geared toward the professional management of players. The "front and back office" refer to sites in traditional sports concerns that handle player scouting, acquisition, business management, and scheduling. Fox and owners like him reflect a shift in power dynamics in esports. By the same token, players increasingly rely on teams and organizations to manage their professional lives. Management skills in owners like Fox give organizations much greater control over their players than that held by the player-promoters Taylor describes.

While some owners are taking on more promotional and mentoring responsibilities in the same manner as Fox, professional managers typically perform the day-to-day operations for teams. An esports manager operates as a mix between a sorority house mom and a traditional manager, accountable for both domestic responsibilities and acquiring and developing talent. Esports organizations around the world typically provide their teams with a house, so they can more easily practice and hold team meetings. Care and maintenance of the house and its residents falls to a team's manager. In Fnatic's *How to be a Professional Gamer*, team manager Finlay Stewart describes his responsibilities as "the cleaner, the doorman, the bin man…I'm something of a substitute parent to some of the players" (71). As teams increasingly include international members, the house also operates as a place to mitigate the adjustment period of moving to a new country.

The labor of esports organizations reflects a range of responsibilities, and the management of the team home represents the "back office" responsibilities Fox describes. Organizations are an esports apparatus designed to employ and manage players. While a game company like Riot sets rules and eligibility requirements, organizations are tasked with the labor

of management. By taking on this role, organizations and teams construct players as the potential intellectual property managed by the vectoral class.

Player-Laborer and Playful Work

Professional gamer may seem a strange combination of words, but over the last decade, professional players have increasingly become new public faces of computer gameplay. While this dissertation considers productive play from a variety of perspectives, professional esports players offer an obvious example of compensated play. This section will seek to construct the figure of the professional competitive gamers within MOBAs, looking particularly at who is performing the perceived labor of esports.

The nature of that labor can in fact be difficult to perceive. The idea of esports as athletics can be hard to articulate. Witkowski, writing about the physicality of esports, suggests "players [exhibit] great difficulty in grasping the 'sportiness' of their activity" (356), by for Witkowski, athletes often do not emphasize or sometimes even recognize the physical nature of their activity. She continues "such reticence is just a reminder that these young men have never verbally expressed their sports as a sensuous engagement" (356). The reticence Witkowski describes a disconnect between esports professionals and their performed tasks. While Witkowski explicitly uses this concept to understand the physical performance in esports, it may also reflect a disconnect regarding performed labor. If professionals cannot see playing a game for its physical qualities, they may fail to recognize play as a form a labor. Professional esports seems to create professionals who are may at first not recognize their play as work. Coming to this recognition involves a noticeable effort, if not a form of labor in its own right.

Esports athletes go through a professionalization process designed and overseen by a game's developers and the organizations or teams they represent. Part of this section examines

how this process transforms players into professionals. While esports professionals perform labor, they appear to be on the receiving end of the labor of other groups who professionalize them. By understanding who professional players are and how they were made professional, I will show how the emergence of professional players requires a rethinking of work and class for computer game culture. I want to understand the players undergoing this professionalization process in an attempt to recognize what esports values in their laborers.

For Taylor, the professionalization of players in esports mirrors the "power gamers" she examines in her earlier study *Play Between Worlds*, an ethnographic look at how relationships are built in Massively Multiplayer Online Role-Playing Games (MMORPGs). She suggests power gamers map game systems and develop strategies to most effectively meet challenges in their chosen games. For her, power gamers transform "simple ideas of 'fun' [with] examples of engagement that rest on efficiency, (often painful) learning, rote and boring tasks, heavy doses of responsibility, and intensity of focus" (88). For Taylor, the idea of power gamers helps better explain "styles of play, forms of interaction/communication, and the various pleasures of gaming" (92). Power gamers reorient how people can play games, and while they are not paid for their efforts, they help Taylor frame the idea of leisure around a committed practice. It is from this vantage point she proceeds into an investigation of esports and its emerging professionals.

Power gamers make a reasonable starting point for understanding professional players, but the approach has limits. Esports professional are actual workers; teams and organizations compensate their labor. Power gamers are more like Kuchlich's modders, a type of committed hobbyist. Using them as a foundation for studying professionals can elide the potential exploitation of performed labor in esports.

When Taylor discusses professional players, she frequently downplays the significance of labor in esports. In *Raising the Stakes*, she describes professional gamers as people who have turned their "leisure into an occupation. Play becomes work and work becomes play" (99). She argues that since this transformation occurs within the realm of computer games, ostensibly set apart from commercial interests, it offends some observers as a breach in the imaginary boundary between work and play. Taylor suggests "Actual players, be they pro or not, recognize the messy nature of play, that it can occupy a 'both/and' relation to work or obligation" (99). The issue at hand is not simply that play and work exist in an increasingly fluid exchange; that state of affairs has long been case. I do not seek to prop up the remains of the "magic circle[25]." Play and work have ceased being radically distinct activities in the 21st century. This approach is not the "almost moral panic of 'play becoming work'" suggested by Taylor (99). Studying professional players within the apparatus of esports provides some insight into how the playing of games has become profitable for other parts of the esports apparatus.

Just as the types of owners have changed since *Raising the Stakes*, ideas about masculinity and gender norms for players may also be shifting. Old clichés of jock and geek masculinity collide in esports. For Taylor, jock culture reflects roots in physicality and athletic performance, which Witkowski helps identify in esports (*Raising the Stakes* 36). While geek culture reflects "an explicit masculinity aimed at maintaining seriousness, focus, and intensity" (118). Esports makes the geek into a version of the jock, even as jocks are becoming stewards of

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[25] The "magic circle" is term defined by John Huizinga in *Homo Ludens*. The concept suggests play, and by extension games, exists separate from the world or external context. Game critics have long seen this position as untenable. Boluk and Lemieux suggest the magic circle reduces "complex material, historical, economic, and political realities to idealized, serialized, exchangeable, and easily consumable products" (279-280). Malaby suggests by setting games apart as spaces and stories "is the largest roadblock to understanding what is powerful about them" ("Beyond Play" 96).

esports as they take ownership stakes in teams. As esports become more inviting to people outside game culture, perceptions and expectations of geek identity will shift. The professionalization of players informs this transformation, and while professional players become the norm, esports as an industry will continue to make their work look more like play.

The Professionalization of All Gamers

In early 2018, Riot Games made esports participation more accessible for all levels of players with the launch of a new competitive tournament mode within *League of Legends,* called "Clash." Riot has long made spectating and consuming esports content an essential feature of its game client; players can easily watch matches via the client or read any number of articles Riot produces for a given region's events. As with *Magic: The Gathering*, Riot uses professional play to market a form of committed experience to its players. Until now, however, turning the casual player into an invested professional player has not been part of the strategy. While many players find motivation in climbing *League of Legend*'s ranking system, this system also creates classes of player as players become stuck at various ranks. Riot sees the new "Clash" mode as a way of disrupting this pattern.

The announcement materials for Clash underscore how Riot wants to disperse an esports experience to casual players. In a year-in-review video for 2017, Lead Producer NEW001 announces Clash as a "super high stakes, competitive experience for premade teams." Playing via Clash is meant to feel "like [a player's] personal esports experience" -- with that experience independent of rank and skill level. In *League of Legends*, players are ranked in a series of tiers based on their skill level; from lowest to highest, they are Bronze, Silver, Gold, Platinum,

Diamond, Master, and Challenger[26]. In Clash, players will create a team for a tournament, and be matched against teams of equal skill. This system aims to create even and fair matches, using the same ethos as professional games. A similar mode exists with the 2017 Battle Pass for Valve's *Dota 2*. This mode invites players to compete in weekend tournaments known as the Battle Cup Series, which provide additional unlocks through the Battle Pass for its players. The Battle Cup provides players with a tournament experience, but one tied to maximizing the productivity of the Battle Pass by providing experience points and levels. This tournament mode creates another opportunity for players to engage with *Dota 2* and generate value from their play. While Clash and the Battle Cup have similar structures, Riot explicitly describes Clash as a professional experience for its player base; Valve uses the Battle Cup as another tool to drive player productivity.

Cultivating a professional experience for amateur players encourages a rethinking as to how developers want people to play their games. To capture the feeling of competitive and professional esports, Clash will include tools that Riot believes are integral to the professional environment. Teams will be able to scout opposing teams in a way that will allow players to develop game plans tailored to their opponents[27]. Once teams have developed strategies through scouting, players begin playing games in Clash tournaments. In a typical game of *League of Legends*, there is a "ban phase" in which certain heroes are ruled out and the players take turns picking from those still available. In the nonprofessional game, all bans happen at the start of a game, and each player may ban one hero. Bans offer players an opportunity to remove any

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[26] Challengers consist of the top 100 players in the region and are often made up of current and former professionals and players aiming to join organizations in the Championship Series.
[27] Scouting in Clash sees players looking at their opponents past matches, and the number of times they have played a particular hero.

heroes they do not like playing against, or those perceived as too strong. Under Clash, however, bans allow players to respond to the strategies or hero preferences of their opponents. In in order to mimic the professional experience as much as possible, players will use the same system found in professional *League of Legends* play and broadcasts. Teams participating in clash take turns banning three heroes, and then picking three heroes. The hero draft concludes with teams banning and picking two heroes. The shift to this alternating, pick-and-ban system increases players' commitments to the tournament, as it takes time to perform. By the same token, decisions are meant to be researched, not impulsive, further increasing cognitive demands. In an ultimate move toward professionalism, Clash tournaments will require a buy-in from participating players, requiring Tickets that can either be earned through gameplay, or be purchased outright. In essence, the new Clash mode will create an experience closely tracking professional *League of Legends* esports. Clash players can even earn prizes.

Creating a mode like Clash and disseminating esports participation outside of expected environments professionalizes all players. For example, requiring monetary investment from players discourages players from quitting or displaying poor sportsmanship. By actively integrating something like the professional experience into casual play, Riot allows all players to feel professional in their hobbies and leisure, confirming Boluk and Lemieux's observation (channeling Valve's Newell) that there is nothing in the world now outside the reach of work. Simulating the professional experience as a game mode encourages engaged commitment from even casual players. Clash generates value for Riot by increasing a player's investment to the game. Purchasing entrance to Clash tournaments creates an additional and obvious revenue, but value also manifests as players spend more time outside of Clash practicing and playing games. Clash formalizes *League of Legends* commitment to dedicated professional play and encourages

all players to participate the professional experiences. While Blizzard sought to make play appear profitable for their players, Riot and *League of Legends* reaffirm the process of professionalization outlined by Taylor as a central mode of play.

With the Clash system in mind, it seems possible that esports' ascendance may signal the end of the casual player, at least as far as the computer game industry is concerned. While casual players will always exist, the industry appears committed to professionalizing most of their player base and relegating casual players into another form of engagement -- spectatorship. A game mode like Clash recognizes players' commitment to the games they play. As with the integrated economy maintained by Blizzard, players invest themselves into the cultures of play that games encourage. For Valve and Riot games, those cultures represent forms of invested productivity. While *League of Legends* and *Dota 2* provide different paths towards these forms of invested play, the core transformation of play underscores the influence of professional esports. The proliferation of esports and how it reimagines player engagement with games is fundamental to understanding the transformation of games into realms of labor. With the dispersal of the esports experience throughout a game, games construct an opportunity for casual players to participate in professional, productive, and committed play. In other words, unpaid casual players become invested pseudo-professional players taking increased ownership of in-game actions.

As games make play a more regular and everyday activity, all play becomes professional, and all gamers become professionals. This transformation makes every gamer active in the generation of value through play. Developers aim to construct systems enabling productive play that seeks to produce value. In the constructed systems, *fun$* finds additional ways to inculcate and invite players into productive. In contrast to Blizzard Entertainment, where

currencies and spending produce productive play, esports and systems imitating esports generate value for game developers by professionalizing the player base and encouraging players to invest in improving their play. Esports makes all play valuable and impactful, but that value aims to stay within the confines established by the vectoral class, made up of developers and investors. Casual games remade into professional competition show us a hacker class playing with someone else's intellectual property.

Esports and Fun$

Fun$ appears when computer games inculcate players into a neoliberal practices and beliefs, and the experience of fun$ often emerges through an engagement with currency forms or systems cultivating productivity. Fun$ emerges from esports to create more professional players, but these professionals have less opportunity to siphon value and profits away from developers. While the professionals competing in the Championship Series or The International must be paid, there is more to the story than the fabulous prizes typically celebrated in the press. From the perspective of game companies, converting a myriad of casual players into committed pseudo-professionals makes daily play integral to self-improvement, extracting enormous potential value from play. That generated value ultimately enriches developers.

The most overt fun$ experience appears through *Dota 2*'s Battle Pass. It creates a a play experience defined by the player's relationship to money and ability to extract value from earned rewards. By training players to extract value through regular participation, the Battle Pass inculcates players into understanding play as a means of profit. The relationship of the Battle Pass to esports differs from earlier examples of the fun$ experience. In this case, fun$ rewards players for consuming *Dota 2* esports content and understanding the logic and culture of its

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professional circuit. Game play drives game spectatorship, and forms of consumption become interchangeable for fun$.

What it is important to understand about the relationship between work and play in this project is how play is made into a profitable activity for agents other than professional players through the fun$ experience. Esports offer a spectated commodity intertwined with platforms of play, and developers aim to make esports engagement central to playing games. Consuming esports content and playing those games cultivates an experience whereby nonprofessional players are as potentially committed as their nonprofessional counterparts. Turning all players into professionals creates as market of committed consumers for developers, and from the perspective of game developers, all play becomes profitable when fun$ emerges.

Chapter 4 Twitch: Immaterial Labor, Means of Production, and *fun$*

The performed labor of play increasingly appears as a public spectacle. Services and platforms, like YouTube and Twitch, make playing computer games more accessible professional activities than esports. This chapter examines Twitch -- the common name for the Twitch.tv internet service, and activity that takes place there -- as a primary object for understanding the impact the public labor of streaming has on game culture and computer game play. Live-streaming, or the practice of broadcasting computer game play as it happens through internet platforms, is a recent phenomenon, and its rise is tied to the development of services like Twitch. This chapter considers how the practice of streaming and the Twitch platform operate as means of production and control for computer game culture. As the previous chapters have examined, the relationship between games and productivity increasingly makes playing games a value-generating enterprise. While esports maybe the more celebrated example of this work-play convergence, I want to conclude this project by turning to this even more pervasive form of play-production. Esports enterprises are deeply invested in the professional players described by Taylor, but streaming seems to be a more democratic practice that can making playing games profitable regardless of mechanical skill. Streaming and Twitch provide a fitting end to thinking through play and work because they show how it may ultimately be impossible to disentangle the two.

This chapter approaches Twitch and streaming from three perspectives. First, I explore the public labor performed by streamers on Twitch, the commodity they produce and situate Twitch within a Marxist understanding of means of production. Twitch constructs a system where ownership, labor, and consumption intertwine. Second, I examine how Twitch as a platform and service operates to encourage engaged economic participation from spectators,

functioning as a mechanism of control for the game industry. Twitch and its parent company Amazon have constructed a variety of systems encouraging spectators to engage in paid consumption of content. In examining examples of Twitch streams, I will show how the media ecology of streaming seems designed to incentivize the financial commitment of viewers to streamers. Finally, I consider how game developers have sought to integrate the platform into their games to create additional content. The presence of esports broadcasts on Twitch is perhaps the strongest example of this integration. This chapter explores Twitch's role in transforming computer game play into computer game labor and understands Twitch as a service where *fun$*, an experience encouraging neoliberal inculcation, emerges.

Twitch and Streaming Defined

Before unpacking the theoretical implications, it is important to contextualize the Twitch service and the practice of streaming. Twitch is a free platform allowing users to stream their play-through of video and computer games for others to watch. Twitch started as a channel on the now defunct platform Justin.tv (Li 87). This Silicon-Valley startup was a "platform [allowing] any user to create a channel and broadcast what every they wanted" (Li 87). At its start, Justin.tv was a general streaming platform with no specific focus on computer games; Twitch was simply one of the many channels users could find. In 2011, Twitch became a "separate brand and domain name" distinct from Justin.tv. The rebranding from Justin.tv to Twitch reemphasized the platform's emphasis on video game content, as the name Twitch signifies the fast-muscle skill overtly associated with the "quick reflexes need to play [computer games] at a high level" (Li 93). Fundamentally, Twitch emerged as a service and platform allowing players to freely stream their computer game play to whatever audience they may find on the platform.

For Twitch, streaming is simply the practice of playing video games on the internet for a live audience, but *streaming* as a term predates Twitch and does not explicitly relate to computer game play. It offers another definition to the term widely associated with consuming online content via Netflix or Hulu, but instead of simply being a way to access content, game streaming is the practice by which players become creators. Throughout this chapter, I refer to streamers, and with that term, I mean anyone using Twitch to distribute gameplay on that platform. *Content creators* is another synonym for streamers found throughout the community, including people streaming gameplay on Twitch or creating videos for YouTube. I will lean on the term streamer because this project and chapter are fundamentally interested in performed labor on Twitch.

In many ways, Twitch is meant to be a gaming-centric interpretation of YouTube that emphasizes live broadcasts over uploaded videos. While on-demand and archived videos can be found on the service, they are not the main focus of interest. Part of the appeal of Twitch lies in its ability to engage a live audience, because this audience can be profitable. Twitch's primary business model relies on spectator subscriptions and advertising revenue. Twitch uses a partnership program that allows streamers to be in control of advertisements through a broadcaster "dashboard." Twitch and the owner of a partnered channel split advertising revenue (Li 93). Instead of having advertisements at the start of a video, streamers choose when to run advertisements during their broadcasts. Twitch's first Chief Operating Officer Kevin Lin has suggested that Twitch's first innovation in "live video [is] the commercial break" (Li 93). It is likely Lin means the idea of a commercial break during internet streaming, but this concept of commercial interruption seems far more reminiscent of an older form of broadcasting – commercial television.

Explaining the logic of this older medium, Jeremy G. Butler argues "advertisers and networks want viewers to overcome television's fragmentary nature and continue watching their particular commercials/programs" (12). Butler recognizes viewers' dislike of having their narratives and content fragmented, and thus the role advertisements play in disrupting consumption. On Twitch, by comparison, streamers have an option for maintaining attention to a channel. The aforementioned broadcaster dashboard gives streamers control of when advertisements are played and their duration. For viewers, a channel's chat interactions maintain viewer attention, and commercials can be avoided if viewers subscribe to a channel. This relationship to commercials and advertisements Twitch creates is about perceived control of consumption.

Subscriptions represent the other dominant source of revenue for Twitch. Spectators can subscribe to a streamer for "5 USD a month and receive benefits like custom [chat] emoticons and no ads…The streamer reportedly gets 2 USD, and Twitch" retains the rest (Li 93). Throughout this chapter, I will expand on the particular relationship of the streamer, subscriber, and the Twitch service/platform, but for now, we can recognize that advertisements and subscriptions represent the initial profit centers for Twitch. As Twitch has evolved and become a larger stakeholder in game culture, additional revenue centers have been added, including *bits*, a currency used to tip streamers, and *affiliated streaming*, a special designation of streamers to whom Twitch offers additional (though limited) support. I will cover each of these features in greater detail below.

In a 2012 talk on streaming and Twitch entitled "Watch Me Play: Live Streaming, Computer Games and the Future of Spectatorship," Taylor examines Twitch's initial influence

streaming and Twitch have on game culture[28]. She emphasizes how live streaming creates

broadcasts with audience interaction can be become the foundation of community creation

("Watch Me Play"). For Taylor, live streaming presents game culture another tool to cultivate

communities around games, performers, and esports. However, as Twitch evolves, its role in

community formation transforms into value generation for streamers, game developers, and

Twitch. While these communities are important and fundamental to Twitch, their primary role is

to enable to the production of value.

Visual Consumption, Twitch Apparatus, and Gamification

While there is no fixed visual arrangement for a Twitch presentation, a number of

conventions have developed over the service's brief history, and the rhetoric of these interfaces
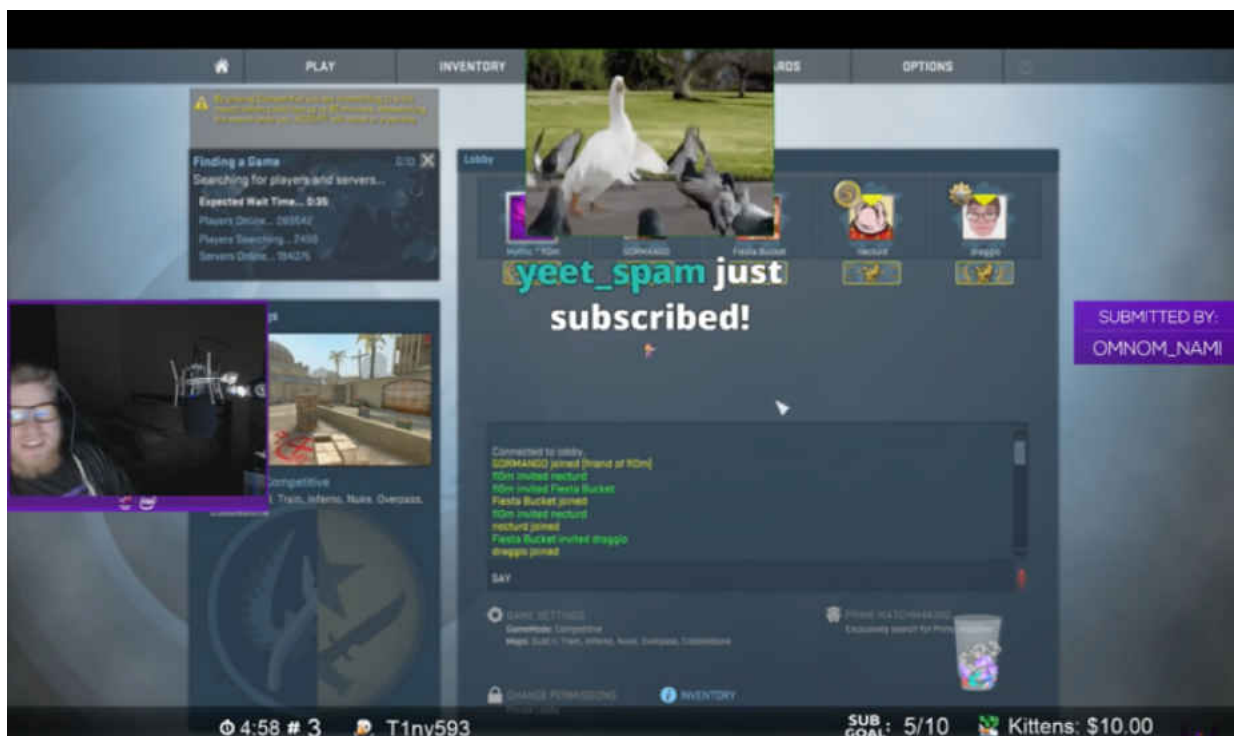

Figure 4 flOm's Twitch Stream

seems geared toward encouraging some degree of monetary participation on the part of the

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[28] A book-length expansion of this research will appear in the fall of 2018.

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viewers. Streams typically feature two image areas: one contains a feed from a webcam aimed at the streamer, and the other shows screen capture from the the game being played. Some Twitch streams display a count of subscribers in a corner of the window. Typically, this number is paired with subscriber goals, with an incentive if that goal is reached often appearing as brief lines of text or as a slowly filling bar graph. Some incentives I have seen include offers of twenty-four-hour streams, of new features ("emotes") for the associated chat activity, or a promise on the streamer's part to wear a particular outfit during the stream. In the case of female of subscribers, this goal often reflects some form of costume play, or cosplay, from a particular computer game, but some male streamers have used cosplay of characters of the opposite gender as an incentive. Subscriber benchmarks indicate growth of a stream and thus reliable income, and subscribers are often thanked on stream by being welcomed to a club. For instance, former *Magic the Gathering* professionals and current *Hearthstone* streamer Brian Kibler welcomes his new and returning subscribers to the "dragon army." His love of dragons is known throughout his viewership because of the decks he has played in both games, and one of his subscriber benchmark incentives had him wearing a dragon costume on stream. These invitations make subscribers feel closer to the streamer and help foster a particular community among the subscribers, creating the sort of community described by Taylor ("Watch Me Play").

This sense of community can have economic implications. Subscribers and advertisers are not the only means by which streams are monetized. Many streamers also actively solicit donations and tips from their viewers. Twitch has even attempted to make tips a part of the culture by creating a currency that viewers can acquire or buy for the sole purpose of tipping – called the bit. Twitch attempts to create an internally contained flow of currency by crediting

viewers with bits as they watch advertisements from Twitch sponsors. Those same viewers rewarding their favorite streamers with their earned bits.

In order to visualize tips, there is often a donation bar in one of the upper corners of the stream presentation indicating a daily goal. Under this scheme, streams typically feature the highest donation of the month and the most recent donation. For many streamers, donations will be recognized with a special message during the live stream if they reach a certain amount threshold. These celebrations often feature pop-up images or movie clips signifying the amount donated and a message the viewer may have included.

While there is some degree of altruism in donating, tips can often function as an opportunity to harass streamers. The messages attached to donations can often be used to remind streamers of mistakes and failures in gameplay. Another problem created by donations has been the issue of chargebacks, or "requests for credit card companies to refund money given to someone through an apparently fraudulent transaction" (D'Anastasio). Donations are most easily made possible through PayPal, a service enabling online payments and transfers. PayPal wants to protect users from fraud if someone has made a large donation or purchase with a stolen credit card (D'Anastasio). However, some Twitch users employ chargebacks to harass streamers by first giving them large sums and then claiming these transfers were fraudulent. This exploit makes the streamer responsible for a chargeback fee imposed by PayPal. If these fees are not paid, streamers will be unable to access their PayPal account for legitimate revenue. Callback abuse has been hard to curtail, and since PayPal is a third party, Twitch has no ability to combat fees associated with it.

The chargeback problem suggests an unaddressed and especially negative dimension of fun$. A major element of the fun$ ideology is awareness of monetary systems and their implied

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power relations. Individuals seduced to this darker side of fun$ have a growing understanding of transactional services and platforms and use that knowledge to enact financial harm on individuals. Fun$ always associates play with money, but in the case of abusive Twitch viewers, it also highlights the power to annoy, harm, and disrupt. According to Whitney Phillips, the impulse to "disrupt and upset as many people as possibly. Using whatever linguistic and behavior tools" available is characteristic of internet trolling (2).

Owners of internet platforms may benefit from disruption, but only within limits. Thus, Twitch has introduced its internal currency, the bit, in an attempt to bypass the PayPal chargeback problem (Fontaine). Bits become a way to protect streamers from hostile viewers while giving viewers another outlet for financial participation. To encourage more positive engagement, Twitch links the use of bits to another new feature of the service called *cheering*, described in its inaugural announcement as "a new way to show support for streamers and celebrate the moments you love with community, all right in chat" (Fontaine). In the experience of Twitch viewers, bits have two functions: they represent a currency than can be given to streamers as a tip and they also decorate or embellish the act of tipping with a graphical celebration. A tip is signified in a streamer's chat space by special *cheer emoticons* that may include sound and animation.

Chat is essential to the Twitch experience. While the streamer's camera feed, gameplay feed, and recent tips list often account for most of the visual space in a Twitch stream, there usually also exists a chat window (or chatroom) located to the right of these elements. This space is filled with text input from everyone watching the stream at a given time, although not everyone will have the right to participate in these chatrooms. In many instances, chatrooms operate with some restrictions dictated by moderators. While this role is always played at least

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partly by the streamer, long-term subscribers and other streamers often serve as moderators. The rules of the chatroom often restrict the posting of links to prevent spammers from filling the chat with pornography, phishing software, or other forms of harassment. In some instances, the chat can be put into subscriber-only mode. Often, streamers will do this if nonsubscribers are violating the spirit of the chat or overly harassing the streamer. In other instances, a user can be completely banned from using the chat. These elements of control are useful when dealing with strangers, who can allow the anonymity afforded by the internet to activate their worst instincts, though the scale and speed of a Twitch stream pose significant challenges.

A major feature of online chat, in Twitch as elsewhere, is use of special, often animated graphics – emoticons -- to express sentiments. As indicated, Twitch has explicitly linked this feature to its internal currency. Viewers convert real-world money to bits, then give these bits to streamers as tips. In the chat window, quantities of bits appear as emoticons. The emoticons linked to tips differ depending on how many bits are given in a cheer; the more bits donated, the more elaborate the animation displayed in the emoticon. Twitch managers describe the animation of emoticons as "evolving" through successive levels of giving (Fontaine).

Twitch rewards viewers with badges signifying how many bits they have given to a particular channel, cultivating a gamified spectatorship that will be explored later in this chapter. Badges appear before a viewer's screen name in the chat room and signify how many bits given to a particular stream. As a community building service, the badges earned by spending bits are channel specific, but they can be earned at multiple channels. With the launch of bits, some streamers have taken to putting an image of a glass on their streams to collect donated bits. While this feature adds visual spectacle to the process, it also reaffirms the long-standing tradition of tipping bartenders and bands. For as much as Twitch streams are 21st century

entertainment, their economic compensation can feel outdated; on the other hand, this aesthetic may create a sense of familiarity with viewers. Bits convert to USD at a rate of 100 to 1, making bits worth one cent each. A donation of 100 bits is equivalent to a one-dollar tip.

Viewers have two ways to access bits. First, they can be purchased in bundles, though these bundles carry a Twitch-imposed surcharge. For instance, 500 bits cost viewers 7 USD, a surcharge of 40%; but the surcharge decreases if bits are purchased in larger quantity. A purchase of 5000 bits costs only 64.40 USD. The surcharge operates as a fee for the viewer and allows Twitch to profit from the practice of tipping. The other way viewers can acquire bits is from opting to watch advertisements on the Twitch platform. Giving viewers money or credit for watching ads is not absolutely new or revolutionary[29], but the conversion of viewing rewards into a currency for tips does represent an innovation. Twitch viewers acquire 1 bit for every 30-second advertisement watched. With this explicit monetization of ad watching, Twitch extends fun$ across a new frontier of development. Tying ad watching to an internal currency monetizes the Twitch experience – as always, in two dimensions, maximizing advertising revenue for the company, and making the viewer or participant constantly aware of money as a primary or underlying feature of the experience.

The visual rhetoric of Twitch heavily foregrounds fun$. While the gameplay window usually occupies the majority of screen space in a Twitch stream, the emphasis placed on financial contributions actively encourages further participation from viewers. In some ways, these designed interfaces encourage what Robert Hutton has seen as the gamification of finance.

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[29] For instance, HitBliss was a movie and television streaming application allowing users to watch ads to earn credit and spend that credit to rent commercial free movies and television. Until it ceased operations in 2014, the service aimed to make ad watching integral to watching media content.

In this case we are more concerned with the financialization or monetization of a game, but the core concept works the same in both directions. Hutton defines gamification as the "the imposition of a game-like perspective onto a non-game context" (208). He argues gamification's popularity comes from how it "positions commodification and competition as the cornerstones of social life," and when applied to finance, "'winners and losers' replaces the language of 'rich and poor,' implying that a fair game has already been played out, and that undoing the results would be an unjust violation of the rules (210-211). Hutton suggests gamification obscures the potential violence of capitalism and finance, converting it into games people can play and win. Economic violence on Twitch appears in the destructive possibilities of playing with money, such as harassing streamers using PayPal chargeback fees, as discussed above. Twitch relies on making money present for both streamers and viewers. With the entire aesthetic and logic of Twitch coded and designed with play and games in mind, the potential harm associated with targeted economic harassment is elided by systems aimed at rewarding and recognizing financial participation. When looking at Twitch interfaces, a similar process occurs when the donors and subscribers are rewarded. They become the winners of the game that is watching the stream and are often featured on a leader board.

Hutton shows how gamification operates in the realm of finance, but the term has a broader application and a distinct history. In a blog post entitled "The Short (Prehistory) of Gamification," British game designed Nick Pelling claims to have invented the term in 2002. He defines gamification as "applying game-like accelerated user interface design to make electronic transactions both enjoyable and fast" and "making hard things easy, expressive, near-effortless to use" (Pelling). Ultimately, Pelling believes his neologism was ten years too early to be truly profitable or useful. Jane McGonigal sees society participating in an "exodus from reality" into

virtual worlds, because "reality is broken" (7). Her plan to fix reality requires the "real world [to

work] more like a game" (7). She offers more general praise for what gamification can offer. To

be fair, she does not explicitly invoke the word gamification, but her argument aligns with a

perspective that sees an increase in game structures in the real world as a way to generate

"positive emotions" (151). For McGonigal, the comfort of video game structures offers a way to

encourage increased participation in everyday activities, seeking to merge the reality of everyday

experience with the structures of virtual games.

In separate critiques, Bogost and Patrick Jagoda demystify the sometimes grandiose

claims of gamification by exploring its unseen implications. For Bogost, gamification amounts to

pseudo-philosophical "bullshit" that conceals what is actually present and coerces the player into

accomplishing tasks ("Why Gamification is Bullshit" 65). Jagoda explores the infiltration of

gamification into digital humanities and education, and unlike McGonigal, proceeds into the

murky realm of gamification with caution. He does not see gamification offering the close or

complex engagement with texts desired by teachers. Like Hutton, Bogost and Jagoda recognize

how gamification conceals other forces at work. As gamification approaches the end of its first

decade since Pelling's self-proclaimed inception, Twitch has emerged as platform aiming to

make the production of consumable play appear easy, seamlessly integrating economic activity

into the platform. The logic of gamification informs the Twitch experience by obscuring the

value viewers and streamers produce. In the case of Twitch, we can see how the service gamifies

spectatorship through the culture and mechanisms of donations. At the same time, gamification

also helps reveal the reverse logic, or the financialization of games.

Another theorist who has weighed in on gamification is Wark. For him, gamification

rewards viewers through a rhetoric aimed at getting people to "do things without paying them by

offering them symbolic rewards in exchange. These rewards appeal by being rare and by being stratified. You can distinguish yourself by winning this symbolic token, which is ranked in…hierarchy of such tokens" ("Considerations…" 73). On Twitch, these rewards encourage viewers to pay for services and experiences in exchange for badges reflecting the amount bits they've given to a stream or how long they have been subscribed to a stream. This system allows viewers to use their badges to reflect a hierarchy of committed spectatorship and thus rewards prolonged, sustained consumption.

As the public nature of donations and tips in Twitch equates viewer support with achievement or successful play, both for streamers and viewers, it also reveals how computer game culture has been impacted not just be monetization, but by financialization – the extension of money logics into increasingly derivative and abstract forms. Haiven suggests that "financialization implies the spread of economic discipline, both extensively around the world and intensively into local social processes, and the coordination of this discipline by abstract global financial markets" ("Finance as Capital's Imagination" 95). Streaming on Twitch makes an intensively economic activity into a visual practice deeply engrained in its community – and it is not without its dimensions of abstraction. Valuing or putting a price on play requires some degree of economic knowledge from the spectators, and while it may lack the economic structures of investment and risk management indispensable to finance, the valuation of play and performance requires an economic skillset that tends to reach a height during a period of financialization, because users are putting a price on an immaterial and abstracted commodity. While concerts and other performances have long been compensated events, the cost to attend has often been set by the market and who is performing. It is precisely how the audience is invited and encouraged to compensate the streamers as a major compensation structure that

differentiates these various practices. While streamers entice viewers with technological visual

and cultural capital, the process of donation requires the players' performance of economic

actions seen in financial markets. Viewers give streamers bits or money as an investment; these

donations afford streamers the opportunity to upgrade the quality of their stream through new

hardware. While their donations do not constitute actual ownership of the stream, streamers often

give viewers recognition for the improvements made to a stream.

Donations gamify the experience through visual recognition, and the use of badges makes

participation a monetized activity that creates a culture of compensating and valuing the streamer

on the viewers' terms. Twitch's visual rhetoric and mechanisms of donation clarify one of the

ways streamers are paid and convey that information to the audience, but the labor of their

performance needs further examination. The next part of this chapter identifies how the labor of

streaming redefines work for the 21st century and characterizes the laborer as entrepreneur.

Twitch and Means of Production

Increasing scholarly attention has been paid to the term *platform,* meaning (at minimum)

a convergence of software, intellectual property, business models, and social practices[30]. As a

platform, Twitch enables streamers and content creators to transform their labor into

performances and consumable commodities. Class and the organization of labor were central to

my understanding of esports in Chapter 3; this chapter refines my examination of class structure

in computer game culture by understanding Twitch as a tool for production and control.

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[30] While examine game consoles as platforms, Nock Montfort and Bogost argue a platform
"influences, facilitates, or constrains particular forms of computational expression" (1). Twitch
to encourage expression concerning growth and profits aligning it with Nick Srnicek, who argues
"the platform has emerged as a new business model, capable of extracting and controlling
immense amounts of data, and with this shift we have seen the rise of large monopolistic firms"
(24). While Twitch reflects aspects of both ideas of a platform, much of the work in this chapter
aims to understand Twitch as a monopolistic platform for game culture and the game industry.

Understanding Twitch as a platform for production reflects the consistent emphasis on play as a productive and committed endeavor from earlier chapters. Ultimately, this chapter aims to understand how Twitch reorganizes play, labor, and power in computer game culture. Dyer-Witheford and de Peuter identify game development as a site of immaterial labor and home to a general crisis of labor (59-67). Issues concerning game development represent key examples for a Marxist critique, but at its core, this project is interested in how the play of games represents a productive form of labor.

For Marx and Engels, the "bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society" (*The Communist Manifesto* 222). For them, the bourgeoisie constantly reinvents what is required for the proletariat to produce value. While they are obviously not writing about transformations of production I identify in this project, Marx and Engels construct the ideology by which the ruling class aims reestablishes its power through a transformation of the production process. This logic still operates even in a gamified, play-as-work economy. I aim to understand Twitch and computer game play as part of a similar shift towards production of value and as the means of production for 21st century productivity.

For Marx, the means of production constitute the "instruments" and material goods consumed by labor to produce a new set of products (*Capital Vol. I* 290). The means of production represent the material circumstances enabling labor; workers consume the means of production during the labor process (Marx *Capital Vol. I* 291). Marx argues the means of production can "never add more value to the product than they themselves possess independently of the process they assist" (*Capital Vol. I* 314). When talking about Twitch as a means of production, I ascribe these similar qualities. Twitch operates as platform enabling the

performance of labor through play; it is evidently a space allowing for the production of value.

Twitch also only adds a limited amount of value to a stream. The creation of a successful and

ultimately profitable stream is rooted in the labor of the streamer and the viewer (collectively, the

participants of Twitch).

For Twitch and computer game play, the platform embodies an instrument of labor; it

enables the the transformation of labor into a consumable product. Twitch lacks an obvious

parallel material good consumed in the production process. Fundamentally, the labor of

participants and the instruments Twitch affords transform computer games into another

commodity, on-demand video (the stream). This productive process reflects the manipulation of

intellectual property and information discussed by Wark. While Twitch is not identical to the

material means of production Marx describes, Twitch reflects a transformation of the labor

process Mark and Engels ascribe to the bourgeoisie.

As discussed in Chapter 3, Wark's conception of the vectoralist and hacker class helps

clarify the relationship between Twitch and its participants, and while the proletariat and the

bourgeoisie are essential concepts for any Marxist project, they do not accurately describe

immaterial production and labor. Wark defines the vectoralist class as mangers who control and

regulate the access to information. The hacker class comprises those manipulating information

that otherwise "seeks to be free" ("Considerations…" 71). Now that Twitch has become a

subsidiary of Amazon (it was purchased in 2014 for nearly $1 billion), the platform is a piece of

technology owned by a prime example of the vectoralist class and represents a distinction from

Wark, who suggests the vectoralists are less interested in owning technology that produces

information. However, rather than appearing as a simple contradiction of assumed vectoral

motivation, ownership of intellectual property is key to logic of Twitch; streamers create

channels and take ownership of producing content. In a narrow sense, streamers represent

vectoral power on their channels because they take control of the produced intellectual property.

Vectoral power ultimately erodes the separation between the vectoralist and hackers on platforms

like Twitch because ultimately everyone engages in information management and manipulation.

While it might be tempting to suggest therefore that platforms like Twitch invalidate binary class

analysis, I will not go so far. Class distinction and class struggle remain essential tools for

understanding even in a regime of gamification and fun$.

Conceiving of streamers as members of the Wark's hacker class appears logical because

of their constant management of information. Fundamentally, streamers manipulate information

to create new intellectual property, and they subvert expectations of play and games to create a

compelling product. Streamers appear as members of the hacker class, but the power they wield

in their channel and the management they perform reflects vectoral power as applied to hacker

information manipulation. While writing about hackers and Silicon Valley, Dyer-Witheford

suggests hackers constitute an "'intermediate' class strata between capital and labor" and argues

"these strata grow in importance with capital's increasingly complex division of labor, and have

always been problematic for Marxism's binary class analysis" (*Cyber-Proletariat* 63). Dyer-

Witheford reconsiders the separation of classes in Silicon Valley and reflects on the

transformation of labor central to Twitch. Wark and Dyer-Witheford offer frameworks for

thinking about class in relation to immaterial and digital labor.

I believe Twitch constructs a labor process that aims to make every streamer feel like an

owner in control of the means of production. Twitch implies ownership by calling select

streamers partners and offering them partner contracts. Launched in 2011, the partner program

offers successful streamers additional revenue through subscribers and revenue sharing from

advertising sales (Tassi). As of 2015, Twitch has 11,000 partnered streamers (Grubb). While I will spend more time analyzing these partnerships later, we can begin by noting that they construct an appearance of ownership aiming to align the streamer with the service. Everyone commits to making Twitch a productive and profitable enterprise, and all streamers can see themselves as owners of the means of production. The dashboard Twitch provides to streamers functions as a control panel for content on the stream. Streamers use the dashboard to open their streams to commercial messages. Through the dashboard, streamers control when advertisements and commercial breaks occur, but Twitch determines the content of those advertisements. By determining what products can advertise on the platform, Twitch performs a gatekeeper role for viewers and streamers. In other words, Twitch determines the commodities worthy of association and consumption by users of its service – and thus, implicitly, by the larger game culture.

At its simplest, streaming is a job or task involving public performance. The streamer is expected to entertain viewers with commentary, computer game play, and audience interaction. It can often look like the streamer is producing and starring in a simulcast radio show, and in fact, some streamers use the microphones and soundboards associated with that type of media production. While streams are archived on Twitch or YouTube, the major attraction for consumers is live performance. Viewers pay subscription fees and make donations with the expectation of live, in-the-moment entertainment, as well as an opportunity to take part in the event. In this way, streaming seems to be a form immaterial and affective labor. In what follows I will examine how the production of affects and immaterial play makes the labor of streaming an all-consuming means of work where the pursuit of capital gives the streamer aspects of both capitalist and laborer, in Marxist terms.

Streaming seems in some ways to represent a potential end point for the postmodernization of the economy identified by Hardt. For him, economic postmodernization also constitutes a shift toward informatization. In that shift, immaterial and affective labors are the "very pinnacle of the hierarchy of laboring forms" that mark shift from industry to service jobs (90). Hardt defines "immaterial labor" as any form of labor that produces an immaterial good like information, services, knowledge and communication (94). Affective labor produces "social networks, forms of community, [and] biopower" (96). Hardt's attempts to define these concepts help us understand what these activities ultimately produce, and while he provides some examples of how various acts now produce capital, he does not provide much insight on the processes that help us rethink what is now work. Writing on immaterial labor, Maurizio Lazzarato helps identify the changes that occur because of the rise of immaterial labor. Similar to Hardt, Lazzarato defines immaterial labor as "the labor that produces the informational and cultural content of the commodity," and he emphasizes both parts of his definition (132). First, informational content of the commodity "refers directly to the changes taking place in workers' labor processes in big companies in the industrial and tertiary sectors, where the skills involved in direct labor are increasingly skills involving cybernetics and computer control" (132). Second, the production of the "'cultural content' of the commodity involves a series of activities that are not normally recognized as "work" — in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes…public opinion" (132). For Lazzarato, immaterial labor brings a transformation in both the kinds of activities done to produce commodities and also introduces a new sphere of cultural production.

Labor in the 21st century increasingly appears defined by immaterial products and labor. Twitch aims to provide laborers with a sense of ownership of the means of production essential

to their labor, but the Twitch service is not owned by the streamers. They are simply allowed access to the platform, and in this way, Twitch represents another realized fantasy for vectoral power as described by Wark. Twitch is another platform where users "pay to rent everything [and] can be deported anytime" (*Telethesia* 166). Twitch may even be more fantastical than Wark's original example of *World of Warcraft* because Twitch is a free service, but once a stream appears profitable, Twitch provides the streamers a gateway to profitability through contracts and revenue sharing. In other words, Twitch offers means of production that can be freely used by laborers to create streams, but profitability is only possible if a streamer meets Twitch's standards. Functionally, Twitch as a platform ensures that performed labor always generates some value for the vectoralist. The systems enabling the flow and sharing of profits from Twitch to streamers represent the systems of control described below. Twitch constitutes vectoral power where users opt to perform labor, and only can begin to profit at Twitch's discretion.

Twitch as a Means of Control

In understanding Twitch as a means of production means focusing on the system it uses to produce a consumable commodity, which is live broadcast of computer game play. Broadcasts take on various appearances and functions depending on producers (streamers) but as the number of streamers and broadcasters has multiplied on the platform, Twitch has created general regulations and systems aimed at regulating broadcasters and spectators. As Twitch takes increased steps to regulate the commodification of play, it begins to operate as a mechanism of control for game culture more broadly, beyond the immediate purview of its service. This broader impact will be discussed toward the end of the chapter. The present section aims to

understand what control means for Twitch and how control is enacted through the financial contract Twitch offers various streamers, and the management of content this contract implies.

Before discussing the particular constructions of control found on Twitch, I want to outline several theoretical approaches to control as a social phenomenon. In "Postscript on the Societies of Control," Gilles Deleuze argues control "is short-term and of rapid rates of turnover, but also continuous and without limit" and is rooted in the "operations of markets" (6). Control emerges through the organization of markets to produce man "in debt," a different form of enclosure (Deleuze 6). For Deleuze, the future of the control mechanism has its roots in the "computer that tracks each person's position—licit or illicit—and effects a universal modulation," or flexible influence (7). Control does not aim to be fixed in societies of control; it aims to be adaptable and enable management of the masses.

Galloway and Wendy Hui Kyong Chun, respectively, consider the particular relationships the internet has to control. Galloway dismisses the suggestion that the internet has roots in freedom, instead arguing "the founding principle of the [internet] is control" (*Protocol* 141-142). He describes this operation as a "type of control based on openness, inclusion, universalism, and flexibility" (*Protocol* 142). Control for the internet relies on seeming unseen. Similarly, Chun suggests "digital language makes control systems invisible: we no longer experience the visible yet unverifiable gazes but a network of nonvisualizable digital control" (9). For Galloway and Chun, systems of control made possible by the internet rely on a paradoxical ethos of openness serving as concealment or camouflage for unseen systems of control. Twitch takes advantage of these qualities of control on the internet to construct a platform aimed at exploiting streamers and viewers.

In the case of Twitch, the service's control of players is hegemonic and consensual. Hegemony allows Twitch to establish a representative model of streamed computer gameplay and encourage and ultimately force streamers to meet that standard. Establishing hegemony over play requires acting as a monopoly for streamed content, which is discussed below in reference to esports. Paradoxically, however, this hegemonic control requires the participant's consent – of a certain kind. Discussing the State, Antonio Gramsci argues "the State does have and request consent, but it also 'educates' this consent" (259). Gramsci ultimately suggests force and consent become equivalents (271). The Twitch.tv service is no more a true state than Amazon or Facebook (which is perhaps to say, not yet a true state), but for purposes of analysis we can draw the analogy. Hegemonic control over streamers on Twitch relies on crafting consent – "educating," in Gramsci's terms -- and the systems in place enabling promotion to different streaming tiers function as an instructional model preparing participants for various levels of consensual control. Contracts, end user licensing agreements, and Twitch's code of conduct all serve to cultivate some semblance of consent on the part of the streamers, who agree to conditions under which Twitch allows them to broadcast content. While players may currently appear as if they are opting into a system, Twitch's move towards monopoly and dominance within culture could make consent more equivalent to force, as Gramsci suggests. Twitch uses these systems to create systems of invisible control to create a version of play and streaming centered on growth and profit generation.

As Twitch has evolved from its inception in 2011, it appears to offer adaptable means of control over play and spectatorship. In many ways, the gamified encouragement of spectatorship constitutes one such system; Twitch rewards streamers for their commitment to a channel though badges, but that reward requires them to be formally associated with the channel through

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subscription. Subscriptions represent monthly fees viewers can pay to streamers. There are three tiers costing 4.99 USD, 9.99 USD, and 24.99 USD, respectively. Subscriptions provide viewers with badges and emotes for use in chat. While similar to badges associated with bits and cheering, streamers must submit their chat specific badges to Twitch for approval, and once approved, subscribed viewers will see those badges next to their screen names in chat along with any badges they have earned by spending bits on a channel. Channel-specific badges encourage prolonged monetary commitments from viewers. Badges aid in community building for streamers and afford Twitch a system of control encouraging consumption. In other words, what Taylor describes as community building can simultaneously constitute a system of control, as Twitch seeks to make a commodity out play.

Access to subscription badges and the assistance they offer community building are reserved for Twitch's most effective streamers, known as partnered streamers. The business arrangement Twitch creates for its streamers begins once they have found a sustainable and sizeable audience. While in the past Twitch would offer partner contracts to streamers, streamers may now apply for partner status. Twitch guidelines for partners include four features: (1) an established and steadily growing audience, (2) sustained chat activity, (3) a regular schedule covering at least three days a week, and (4) presentation of content conforming to Twitch's rules of conduct, terms of service, and DMCA[31] guidelines ("Tips for Applying to the Partner Program" Twitch). Beyond these suggestions, Twitch is vague regarding the requirements to become a partner. The company states, "all of these are general guidelines, and exceptions are handled on a case by case basis. We're always excited by streamers who create unique content"

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[31] DMCA stands for Digital Millennium Copyright Act, which Twitch can use to terminate channels for repeated copyright violations.

"Tips for Applying to the Partner Program"). Twitch thus afford themselves flexibility to judge

all streamers for commitment and content. The partner position gives Twitch control over

broadcasters and creates a path to supported self-employment rooted in gameplay.

　　As a mechanism for control on the internet, as Galloway and Chun would have it, Twitch

needs to project an appearance of openness and community building. From one perspective,

anyone can stream on Twitch if they have minimal technical capabilities[32]; as a platform it aims

to invite and encourage broadcast play. The openness Twitch presents to potential streamers

obscures the restrictions and benchmarks Twitch deploys to identify profitable streamers.

Streamers existing outside of Twitch's partner and affiliate tiers lack Twitch's infrastructure to

generate revenue for themselves, but these streamers still generate revenue for Twitch. While

partnered streamers have access to a dashboard and control panel to air advertisements on their

terms, Twitch determines when ads air on unaffiliated streams. When those advertisements air, a

message appears saying "This ad supports Twitch." On partnered streams, the name of the

streamer appears in place of Twitch.

　　Partner status provides the streamer with some institutional support from Twitch and

access to a streaming dashboard. From the partner dashboard, streamers can broadcast

advertisements to generate revenue and turn on the subscribe button in the interface. Subscribing

allows viewers of a stream the option pay 5 USD per month for an advertisement-free experience

while also supporting the streamer. As previously mentioned, the streamer and Twitch share

these revenues. A viewer subscription lasts one month and must be renewed by the viewer. Many

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[32] A medium quality stream requires a streamer to have an upload speed of 3 Mb/s, and the
hardware configured to capture and broadcast video. Streamers must also own games and have
some proficiency with them. Many consoles make streaming or broadcasting part of the
hardware. For example, the PlayStation 4 controller has a "share" button, so players can easily
broadcast or capture video.

streamers incentivize subscribing by providing more access to subscribing viewers. For example, some streamers have subscriber-only chat channels in games, which they will use to form teams and play with their viewers, or they will have a subscriber-only Discord[33], which is essentially a secondary chatroom where subscribers can gather. Subscriptions provide reliable income for streamers.

Fundamentally, Twitch partner status exists as a motivational position in which the broadcaster's labor is supported by Twitch, but this relationship, and the systemic control it implies, are less transparent at another important level of Twitch streaming: the affiliate program. Affiliates consent to similar degrees of control as partnered streamers but lack some of the benefits. The existence of such a position promotes Twitch's attempt to monopolize the kind of play appropriate for streaming by educating a growing number of streamers on the possibilities of profitable play as Twitch defines it. Affiliates exist as a middle tier of streaming between unpaid, casual streamers and partners. While partners must meet the somewhat nebulous requirements discussed above, streamers can apply for affiliate status if they meet four fixed requirements. Affiliates must (1) stream for eight total hours over the course of a month, (2) stream for seven days in that same month, (3) average three viewers per stream, and (4) grow their audience to 50 followers. Unlike followers of subscribers, followers of affiliates make no payment but do receive notifications when a stream begins ("Joining the Affiliate Program"). In another instance of gamification, Twitch refers to these four requirements as "Achievements" ("Joining the Affiliate Program"). Through these achievements, Twitch offers concrete benchmarks streamers can aim for when attempting to move from affiliate to partner. While

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[33] Discord is a platform that allows users to create chatroom and message boards. It has built a relationship with game culture by offering voice communication through its chatrooms.

affiliate status can be achieved once the benchmarks are met, partner status must be applied for.

Partner thus offers an aspirational position, and a status granted by Twitch to channels and

streamers who align with Twitch's ideals. In a summary of 2017, Twitch reveals it has over

27,000 partnered streamers, 150,000 affiliate streamers, and 2 million unique streamers ("2017

Twitch Year in Review"). Gamification exists to create more potential Twitch affiliates, who

will then produce more subscribers. Achievements aim to make the affiliate status something that

broadcasters appear to earn, but they fundamentally exist as tools to help Twitch identify

potential revenue sources.

The differences between partners and affiliates underscore Twitch's control of

broadcasters. Twitch gives partnered broadcasters an array of benefits once they have attained

that position. Partners have access to additional revenue streams, which include advertisements

and a share of revenue from sales of the games they are currently streaming[34]. Ads and game

sales are handled differently for affiliates; they can still sell profit from game sales, but they do

not have the option to control advertisements ("Joining the Affiliate Program"). When it comes

to dispersing revenue from advertising and game sales, partners receive payouts after 45 days

and are waived the payout fees Twitch usually charge when disbursing revenue to a streamer.

Affiliates are paid after 60 days and must cover their own fees, depending on payout method. For

example, an affiliate must exceed a revenue threshold of 100 USD for a given month, and that

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[34] This program is optional and allows partnered broadcasters to earn 5% of a game's sale
("Guide to Earning Revenue from Game Sales" Twitch). Notable participating developers
include Ubisoft, Telltale Games, Digital Extremes, Hi Rez Studios, and Double Fine Games.
Viewers who buy games using this program will receive a Twitch specific loot crate containing
emotes, chat badges or bits. The system produces consumption aimed at generate more
consumption.

money will be paid to the affiliate 60 days after the month ends ("Affiliate Payout [Frequently Asked Questions]").

Twitch's acquisition by Amazon must also be considered as context for its business model. Because Twitch is now a subsidiary of Amazon, a Twitch channel subscription is now included with Amazon Prime[35] and is called Twitch Prime. Twitch Prime grants viewers one free monthly subscription to a Twitch channel. (A channel is a broadcast source associated with one or more streamers and may include a range of content during a given period.) Under the Amazon Prime arrangement, the subscription fee is waived for the viewer, but the operators of the selected channel still receive their share of the subscription revenue. As for developers, Twitch Prime provides players with rotating virtual goods for a variety of games and free games. For example, as part of Twitch Prime, Blizzard has offered free loot crates for *Overwatch* and *Heroes of the Storm* and card packs for *Hearthstone*; the selection of virtual goods rotates every month. As a system, Twitch Prime uses game developer participation to encourage a prolonged cycle of consumption for viewers. Here, committed spectatorship provides access to virtual commodities, and developers benefit when players and viewers exist in an unending cycle of production and consumption mediated by play.

As critics Benjamin Burroughs and Paul Rama see it, "Twitch influences the construction of expertise and learning through game play. Twitch and game streaming are important to gamers in an affective relationship, which in turn makes audiences want to participate and stream their own gaming experiences" (3). What they identify as an affective relationship reflects the enduring cycle of spectator becoming producer. As a means of control, Twitch aims to enact

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[35] Amazon Prime is a service attached with an annual fee including free shipping, Amazon TV, and other content.

systemic control by establishing the conditions for streamer and viewer consent. This consent

allows Twitch to establish play under their terms and equate play with growth and consumption.

Control on Twitch relies on educating or developing consenting streamers and viewers through

cycles of production and consumption. Twitch aims to direct streamers into practices ultimately

generating value through subscriber growth and ad revenue and thus encourages viewers to

subscribe, donate, purchase, and cheer. Twitch's strategy for coercing streamers and viewers

toward these practices and habits aligns with the logic of fun$. Twitch creates an experience

where fun$ appears through badges, achievements, and growth incentives for players; Twitch

reorients the practice into a game for streamers, who see their progress toward profitability.

While fun$ typically functions to indoctrinate players into neoliberal practices, Twitch relies on

neoliberalism to create its communities. Here, fun$ serves to make the system of control appear

as a system streamers and viewers opt to use.

Produced Commodities on Twitch and Game Developer Adoption

The range of content produced and consumed on Twitch is expanding. The most common

form is the broadcast produced by an individual, and after that, esports broadcasts and gaming

talk shows. In this section, I want to consider the role of esports broadcasts in encouraging game

developer participation on Twitch. The impact of esports on Twitch goes beyond the

broadcasting of games and events. Taylor suggests streaming by professionals allows "fan

engagement to become something more than tournament spectating" ("Watch Me Play").

Professional streaming allows fans to see these players in their most mundane moments and

invites fans into their bedrooms, living rooms, or offices. Game developers frequently use

Twitch to distribute esports content, and by returning to esports, this section aims to understand

how Twitch deploys its relationship to esports and developers to cultivate its position as a

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potential monopoly of consumable play. This expanded dimension of esports is critical for the

community-building aspect of Twitch. However, I want to examine Twitch's relationship to

esports once these communities are formed and understand how Twitch's relationship with game

developers reflects the sense of control and production seen for viewers and individual

broadcasters.

For some time, the ESPN television network has featured esports and competitive gaming

broadcasts; for instance, *Dota 2*'s major tournament, The International, was televised on that

network in 2014 (Burroughs and Rama 2). As Twitch's influence over the game industry grows,

the audience to be found there begins to dwarf those available through traditional broadcasting in

the United States[36]. Burroughs and Rama argue a reason for this is "the liminal space of

streaming and esports between the real and the virtual" (2). Esports and Twitch aim to transform

the activity of playing video games into a real commodity. This relationship to play makes

Twitch a seemingly natural platform for esports. Over the last few years, Twitch has attempted to

solidify control over esports content by acquiring exclusive streaming rights from various game

developers and esports organizations. For example, Twitch has exclusive broadcast rights for all

of Blizzard Entertainment's esports (Huddleston).

Purchasing exclusivity gives Twitch increased control over the game culture in general

and reveals the role of Twitch as a potential node within a larger cultural network. As discussed

earlier, the form of control pursued by Twitch operates under a logic of hegemony via consent as

described by Gramsci. When it comes to controlling streamers, Twitch aims to have channels

exist under conditions that will make play most palatable for consumption by viewers. For game

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[36] In *Raising the Stakes,* Taylor outlines South Korea's varied television channels dedicated to broadcasting computer games (25-26). Other than ESPN, "Turner Broadcasting [shows] Counter-Strike…on TBS" (Li 104).

developers producing esports, Twitch seeks control through monopoly and agreed content

distribution. Twitch appears to represent a potential centralized network that operates with a

"single authoritative hub," and each channel constitutes a potential node, or branch subordinate

to the hub (Galloway *Protocol* 31). As Twitch acquires exclusivity with broadcasters[37] and

developers, the service becomes an increasingly significant hub for the games industry. It beings

to function as a destination where new games are announced, permitting developers to promote

their products to large audiences. In this broader influence over game culture and the game

industry, Twitch becomes at least potentially a system of control for all economic activity

surrounding computer games.

Twitch overtly changes how games are consumed through its remediation of games into

videos and live broadcasts. Jay David Bolter and Richard Grusin "call the representation of one

medium in another remediation" (45). Remediation in their view constitutes "the formal logic by

which new media refashion prior media forms" (273). Twitch represents remediation turning in

on itself. In other words, if Twitch constitutes a new medium, it seeks to reorient the new media

Bolter and Grusin describe as its "prior forms." Computer games and internet videos are

reconstructed to resemble the contents of broadcast television and radio, but in the context of an

intensely interactive and intensively subdivided internet platform. Esports broadcasts represent

an obvious example in this respect; they transform traditional sports broadcast into a gaming-

centric spectacle. While the inclusion of commercial breaks might constitute the first turn back

toward older media in the Twitch formula, with esports we see an even stronger reversion to

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[37] The Twitch Partner contracts also include an exclusivity clause for live streams but not on-demand video.

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earlier practices, as a scheduled broadcast intermingles gameplay with commentary. In the coverage of esports we see sports television fundamentally re-imagined.

Even as the Twitch platform actively encourages a return to older media forms, it also shifts radically toward a new, gamified regime of fun$ by making play watchable – and the spectatorship of play a commodity. For Bolter and Grusin, computer and video games "co-opt broadcast television to offer a kind of entertainment whose characteristics include…tightly coupled interaction between the player and the screen" (92). Games encourage an already intense interaction between players and screens; Twitch uses the relationship players have built through play to craft a viewing experience where players can feel more engaged. This increased engagement is made possible through Twitch chat, where players can easily interact with broadcasts, streamers, and other viewers. Donations and subscriptions reflect similarly involved relationships between viewers and the content being produced. Twitch deploys the already existing relationship gamers have with screens and reorients those relationships to make gamers more involved spectators. By creating these engaged spectators through a cycle of remediation, Twitch crafts a reason for developers to use their platform for distributing content.

As the gaming experience of player activity with games has changed in the wake of Twitch, games themselves have shifted to meet the needs of streamers and viewers. Games increasingly include features that appear adapted to spectatorship on Twitch. Some of these changes are technical, making games easier to stream. Others reflect a recognition by game developers of the importance and implications of spectatorship. Recently, competitive games have begun including a "streamer mode," which aims to prevent streamers from being identified in games. This feature defends against a practice colloquially known as "stream sniping." Under this practice, viewers use information gained from streams to gain an advantage over the

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streamers in later contests. In Epic Games' *Fortnite* (2017), the streamer mode anonymizes the

operating player in the game lobby and when they are eliminated from the game[38]. While it

remains possible to identify a streamer by watching a stream and using contextual information,

streamer mode aims to make "stream sniping" an arduous form of cheating by removing the

most obvious signifier of identity. Streamer mode reduces the chance for a player to harass a

streamer after eliminating them if they cannot differentiate players. As streamers rise in

popularity, the anonymity afforded by their screen names are no longer effective, and computer

games adapt to maintain competitive balance for streamers. Though a minor change to the

game's display, streamer mode shows the interest of game developers in adapting to the needs of

broadcasters, recognizing that playing games on Twitch creates a different ecology for play.

While many games can enable streamers and viewers to inadvertently or spontaneously

enter into interaction, developers are increasingly designing games to take advantage of this

interaction *as it is defined by Twitch*. Games designed for Twitch tend to fall into two categories:

ones in which streamers and their viewers become characters in-game, and those supporting the

community building process on Twitch by incentivizing donations and viewer engagement.

Designed by Schell Games, *Wastelanders* (2016) casts streamers and their viewers as survivors

in a post-apocalyptic future, fighting against other streamers' communities in a strategy game.

Streamers become the leaders and viewers serve as units engaged in combat. The streamers

appear as avatars commanding the viewers, who would be characters controlled by the streamers

in a turn-based strategy game. In effect, the streamers use their viewers as pawn to combat other

streamers. It offers and allegory where streamers control through viewers through play.

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[38] *Hearthstone* has a similar mode where players can replace their screen name with "Your Opponent."

Ultimately, if all games aim to include streaming essential or are designed around streaming, all play could become broadcast and the distinction between streamer and viewer may cease to be. *Wastelanders* embodies the community building central to Twitch in its game design philosophy. There are other cases as well. Game designers Proletariat Inc. only develop games for Twitch audiences. The irony of their name is not ignored in this Marxist project, but in a sense, their games are for the people; the company's motto is "players first." Their most recent game *Stream Legend* functions as a supplement for Twitch chat and requires viewers to work together to accomplish tasks in the game. In both these games, viewing a stream and playing a game are radically conflated. This game and others like it conceive of Twitch chat as a playful space where viewers are actively engaged with the streamer – even joining purposively and strategically in the game. Though it is far too soon to know the outcome, it seems worth asking whether games like these predict an eventual collapse of the distinction between streamer and viewer.

What such a development would mean for Twitch is hard to speculate at this point. It is probably safe to assume that the hegemonic position of Twitch would not be threatened. That proto-monopoly is now coming closer to full realization as Twitch consolidates its relationship with game developers. While Twitch-centric games and broadcast esports represent overt usage of Twitch by developers, the network of streamers playing their games to captive audiences requires an acknowledgement from the industry. In this regard we can see the importance of Twitch's recruitment and education of streamers, who not only provide a steady revenue base for Twitch itself, but at the same time offer enormous promotional benefits to the developers of the games being played. While at least partial alternatives exist on YouTube and Facebook, Twitch's

cultivation of consenting streamer-advertisers and viewer-consumers suggests a potential monopoly over a highly valuable commodity.

Twitch, fun$, and "Machinic Enslavement"

Writing through Deluze and Guattari, Grusin examines how media assemblages create and maintain "affective feedback loops" (100). For Grusin, "in the media everyday of global post-capitalism in the twenty-first century, social or political agency is only possible by means of, or within, the constraints of machinic enslavement" (101). For Grusin, the subjectivity of users of 21st century media is rearranged by their relationship to machines and objects. The relationship users create with media inform affective interaction and redefine their subjectivity based on their relationship to media. Twitch viewers participate in media ecology where play and spectatorship never separate.

Twitch operates within this context to enable machinic enslavement in viewers and streamers. Machines, consoles, streams, chats, bits, and badges all serve a singular purpose for Twitch -- *consumption*. Twitch constructs every moment as an opportunity for consumption, or the generation of revenue ultimately for the service itself. Viewers inhabit chatrooms and flaunt their badges, tips are given, and streamers thank and acknowledge donations and subscriptions. Underlying all these activities are transfers of money, from which Twitch inevitably takes it cut. Spending is never neglected in the Twitch ecosystem. In the machinic enslavement enacted through Twitch, value and profit are extracted from users' mundane actions, and the platforms need for growth rewrites game culture. The constant engagement with play as profitable creates an ecosystem where all of Twitch's participants serve the imperative of value generation. Commodities are produced and immediately consumed, whereupon new opportunities for consumption constantly confront the player and spectator, streamer and viewer – assuming those

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distinctions still hold. Communities and affective affiliations flourish, but always and only in the service of profitable play, the main objective of the platform. Twitch exists as a system where the convergence of work and play reach their ultimate development in a game culture completely aligned with neoliberal values. In this respect it may well represent the apotheosis of fun$.

Conclusion: Game Culture, Fun$, and the Collapse of Play

This project has examined the relationship between computer game culture and neoliberal ideologies, such as those associated with financialization. Each chapter offers an introduction or exploration into a new experience I call fun subprime, or fun$, which is the inculcation of neoliberal practices by playing computer games. Fun$ rewrites the experience of games as an economic endeavor characterized by profit, value, and productivity. The development of fun$ begins as game designers make economic action, both figurative and actual, an essential element of gameplay. Once gameplay becomes economic play, fun$ begins to make this activity feel profitable for the player, while generating endless value for developers. This transformation of play initiates fun$'s occupation of computer game culture, and through these changes to gameplay, fun$ aligns the subjectivity of players' subjectivity with neoliberal values.

While much of the work throughout the dissertation reveals the neoliberal indoctrination of fun$, I want to conclude by considering another dimension that seems unavoidable because of the relationship of the term "subprime" to the financial crisis that began in 2008 -- the event of collapse. The economic crisis at the end of the first decade of this century emerged from a large network of interconnected agents, but the process began with the decline of property values and the proliferation of subprime mortgages, instruments aimed at "first-time homeowners with spotty credit histories and modest if any down payments" (Kindleberger and Aliber 261). We might speculate about – indeed, anticipate -- a parallel process occurring through fun$. Collapse in this case might have two dimensions: an economic reversal for the game industry, and a conceptual crisis for game studies.

As in the case of the 2008 crisis, one collapse leads to others. Fun$ perpetuates and finishes the collapse of work and play as separate ideas and activities. Conceptually, these two

activities are indistinguishable in 21st century computer games. Playing games has rapidly come to embody qualities characterized by work. While not the same thing as compensating players directly for play, daily rewards for players reflect a logic of compensation for completed tasks. Games remake play into a regular and obligatory practice; daily play comes with daily rewards for players. Fun$ seeks to integrate potential value generation into any aspect of play. This collapse of work and play explicitly refers to the activity of nonprofessional players engaging in consistent play; the analysis of Blizzard's intertextual economy in chapter 2 depicts the process of this collapse. Blizzard's games transition toward this model of rewarding players for habitual play.

One collapse leads to others. Equating work and play fundamentally transforms the cultural situation of computer games. This transformation is most obvious when considering esports and for-profit Twitch streaming, where play is precisely work. Playing games increasingly represents professional activity in these realms. Esports invite game developers to systematically rethink play as a source of value. As players collect salaries and employment benefits, esports appears an active agency of fun$'s tendency to inculcate casual players into a professional ethos. While casual players will never replicate professional skill, they nonetheless generate value for game developers, and have not fun – but fun$ -- in the process. For Twitch, the collapse of work and play enable the existence of the platform. Playing games becomes a performative profession for a subset of players. Fun$ thrives on the Twitch platform by dissolving any perceived separation between play and work. These concepts become indistinguishable through fun$'s reshaping of game culture.

The pattern of collapse proliferates. Real and virtual are no longer meaningful distinctions under the reign of fun$. While perhaps inevitable given the fragility of the "magic

circle," discussed throughout this project, the already tenuous distinction between real and virtual seems untenable in game culture. As fun$ aims to make play a regular facet of daily life, players' engagement with virtual systems becomes unending. Game developers consistently develop systems to maintain players' attachment to virtual worlds. Blizzard's *World of Warcraft* now includes a companion smart phone application; the application allows players to manage their avatars, so the avatar can be completing missions when players are not actively playing the game[39]. While not a particularly novel concept, this new attention demand reaffirms a commitment to unending participation in virtual worlds and systems.

The Twitch service takes a reverse approach to eroding this distinction by making the "real world" more a part of Twitch's virtual platform. IRL, or "in-real life" streams now have a dedicated category on Twitch, typically featuring streamers using digital devices to show themselves performing mundane activities including going to parks or grocery stores, or having a meal. IRL streaming reflects the simultaneous consumption of the real and the virtual as fun$ seeks to make every possible activity generate value.

The collapse of the virtual and the real seems even more apparent when considering the rise of virtual currencies. Cryptocurrencies, like bitcoin, are becoming more prevalent through greater market penetration and user adoption. Cryptocurrencies are digital currencies do not appear too different from other currency forms; they are just a digital "object" (Golumbia 26). The proliferation of digital currency reflects fun$'s forced collapse of the distinction of real and virtual – and it moves through some of the same channels of value and meaning that have shaped the emergency of currency-play in contemporary games. Crypto and digital currencies offer

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[39] These smart phone applications create virtual pets, like a Tamagotchi, out of a player's avatar. Blizzard resurrects the logic of perpetual maintenance of virtual characters to extract maximum value.

examples of this collapse outside the purview of game culture, but the relationship fun$ develops between players, virtual economies, and computer game currency parallel those required of digital currencies. The conceptual collapses made by fun$ transforms work and play into a singular act and end any remaining distinctions between the real world and virtual ones. The subjectivity rewritten by fun$ enacts this conceptual collapse and redefines both what play means – and crucially, the way play surrounds us with meaning.

For the game industry, the collapse brought on by fun$ may well embody Marx's ideas about crisis and unending consumption. Marx argues a "business always seems almost exaggeratedly healthy immediately before a collapse" (*Capital Volume III* 616). He suggests "the ultimate reason for all real crises always remains the poverty and restricted consumption of the masses" (*Capital Volume III* 615). For Marx, crises emerge as capitalist production exceeds rates of possible consumption for the public. Marx argues these crises are manufactured through capitalist production and identifies one legitimate crisis in his analysis as "a general harvest failure, affecting wither the staple foodstuffs or the principal raw materials for industry" which creates a "genuine lack of productive capital" (*Capital Volume III* 615). As capitalist production moves toward a crisis, Marx suggests industrial production approaches a "period of overproduction and swindling, [where] the productive forces are stretched to their limit, even beyond the capitalist barriers to the production process" (*Capital Volume III* 621). For Marx, these crises are inevitably consequences of the cyclical nature of industrial production.

When considering Marx's analysis in relation to fun$ and the game industry, I can identify aspects of the industry replicating the period of "overproduction and swindling" articulated by Marx present in game culture. As mentioned in Chapter 2, the potential crisis of free-to-play games and virtual commodities replicates Marx's logic of exhaustion and collapse.

Loot crates embody the process of overproduction and swindling. Blizzard's loot-supported games deploy a multitude of virtual goods for players to consume, and instead of letting players purchase them outright, forces players to acquire them randomly through repeated opening of crates. A plethora of virtual goods thus overwhelm players and encourage constant consumption of computer games. While this pattern may seem far removed from the boom-and-bust cycles of heavy industry that informed Marx's critique, a certain basic logic does seem present.

The role of fun$ in manufacturing a crisis around loot crates and virtual goods manifests through the constant desire to acquire new virtual goods, the better to enhance and, in effect, capitalize one's experience of play. By preying upon players' motivations for earning content, fun$ creates a situation where players will constantly labor for the privilege of virtual goods.

As computer game culture exists in this period of limitless exploitation or swindling, the players' willingness to consume virtual goods is tied to the experience of fun$; these virtual goods are earned through the players' labor-play, masking the logic of exploitation to which they belong. While some companies have seen pushback against loot crates and excessive proliferation of virtual goods[40], they do not appear to be leaving the commercial market for computer games, or significantly altering their business practices. They seem to assume the player's desire to consume is infinite and inelastic. However, no acquisitive impulse, even one mediated through virtual goods, can be truly inexhaustible. Conflict between the interests of players and game operators must eventually appear. Players will rebel and owners will retaliate.

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[40] The publisher Electronic Arts (EA) is frequently the target of player derision for their use of loot crates in the recent *Star Wars Battlefront II*. Ultimately, EA has relented to player pressure and removed loot crates from the game. EA now celebrates the absence of loot crates in 2018's *Battlefield V* as a marketing strategy to assuage players' fears. For a brief moment, loot crates appeared on their way out, but their absence is simply being used to sell another product.

We have seen at least one instance of this outcome, in the case of black-market trading in World of Warcraft in Chapter 2. There are bound to be others.

The looming collapse likely to be brought on by fun$ points to the problem of overconsumption in computer game culture. Game developers produce far too much consumable content for players or viewers to ever completely consume, and that inability to consume every aspect of a computer game drives players to either continue earning those bits of content or pursue them through loot crates. As fun$ inculcates players into infinite cycles of consumption through play, the industry produces countless virtual goods for players. In this cycle, when the industry survives, what constitutes play will be radically reconfigured as a means to produce value for all parties. Fun$'s appearance leaves games and play as forms of capitalist production and makes the game industry the managers of exploited players.

The promises of fun$ collapse through these unsustainable practices, but the current understanding of these cultural practices in game studies is lacking. Taylor's *Raising the Stakes* and other works provide a foundational understanding of what esports and communities mean for game studies, but she does not consider how these groups are exploited through a larger array of social and economic mechanisms, system I call fun$. In *Games of Empire*, Dyer-Witheford and De Peuter consider the game industry's relationship to the logic of Empire and examine the role of games in perpetuating that logic. However, they do not foresee what comes after Empire, and as play increasingly occurs in economic terms, the neoliberal machinations of fun$ supplant the militaristic indoctrination they identify. Boluk and Lemieux consider the array of practices games allow through metagames and the possibilities these practices have for game studies. Yet, in their cataloging of diverse practices, they fail to consider how games drive players towards normative or mainstream economic practices.

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Fun$ rejects several of the old arguments and procedures game scholars have recognized as foundational for the field. Narratology, or the study of game narratives, cannot adequately confront fun$, nor can ludology, the study of play, as it has been so far defined. These early theoretical positions are not equipped to address an experience rooted in economic consumption and production. The games designed in an era of fun$ eschew grand narrative and teleogical, end-seeking play in favor of spending, market manipulation, and unending, professionalized play. Game studies' current methods are not equipped to deal with games that create habitual consumers and producers and are not equipped to deal with a reality where games exist to create neoliberal utopias aimed at more efficiently and seamlessly exploiting players.

In order to be more prepared to deal with problems fun$ presents, the field of academic game studies needs to stop appealing to the game industry as potential interlocutors, allies, or even clients. Critics and producers have conflicting agendas. The future of the game industry appears fully committed to creating platforms aimed at simultaneous production and consumption, and game studies needs reconsider how its relationship to the game design industry colors the perception of critique, interpretation, and analysis. In order to escape fun$, critics must separate themselves from the industry; they cannot continue to enable fun$ by creating handbooks for the industry for creating economic systems. For instance:

> We seek to introduce the discipline of economics into the toolbox of digital design and
> game design, which so far has been dominated by other disciplines. For those already
> familiar with economics, we seek to show it can be applied to analyzing how scarcity-
> based digital interaction and business functions. In our economic models, we also include
> a healthy does of other social sciences and practical knowledge form game design.
> (Lehdonvirta and Castronova 6)

Game designers must recognize the potential for game play to be finite, and that habitual play does not equate to meaningful play. Without thoughtful meditation on the academic discourse and the industry, fun$ will persist until it produces its inevitable disaster. If we allow things to go that far, perhaps the only way to immediately escape the experience cultivated by fun$ will be to reject computer games entirely. In other words, unless things change, it may soon be time to unplug and play nothing.

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Wastelanders. Schell Games, 2016.

World of Warcraft. Blizzard Entertainment, 2004.

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EDUCATION

Doctorate of Philosophy, Expected Graduation 2018
University of Wisconsin-Milwaukee, Department of English
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Dissertation: "The Labor of Play: The Political Economy of Computer Game Culture"
Committee: Stuart Moulthrop (Chair), Richard Grusin, Annie McClanahan (University of California-Irvine)

Master of Arts, 2012
Texas Tech University, Department of English
Film and Media Studies Program

Bachelor of Arts, 2009 (Departmental and University Honors)
University of Central Florida, Department of English

RESEARCH

Publications

"Along the Folds: Sea and Spar and Portals Between." with Stuart Moulthrop. *CounterText* 2(2) 2016. 130-139.

"Super-Intertextuality and Individualized Social Advocacy in *Spider-Man* and *Kick-Ass*." in *The 21st Century Superhero: Essays on Gender, Genre and Globalization in Film*. Eds. Richard Gray and Despoina Kaklamanidou. (Jefferson: McFarland and Co.), 2011. 129-143.

Conference Presentations

"Unspooling Twine: Practical Game Design as Writing and Research Pedagogy." Computers and Writing National Conference. Fairfax, Virginia, May 25-27 2018.

"'Game Over, Man. Game Over': Computer Game Literacy in Wake of a Culture War." Computers and Writing National Conference. Menomonie, Wisconsin, May 28-31 2015.

"First and Third Person Weird: Video Games, Object-Oriented Rhetoric, and Nonhuman Avatars." Rhetoric Society of America National Conference. San Antonio, Texas, May 22-26 2014.

"Sea and Spar and Portals Between." By Stuart Moulthrop and Justin Schumaker Computer Games and Literary Theory. Valetta, Malta, November 7-10 2013.

"Interacting and Conquering the New Frontier: Video Games, the Frontier Mythology, and the Digitized West as Phenomenological Game-Body." Western Literature Association Conference. Lubbock, Texas, November 7-10 2012.

"How the West was Played and Won: Video Games, The Frontier Mythology, and the Digitized West." Film and History Conference. Milwaukee, Wisconsin, September 26-30 2012.

"Preservation through Play: *L.A. Noire* as Cinematic Preservation of the Noir Discourse." University Film and Video Association Conference. Chicago, Illinois, August 6-11 2012.

"Driving through Traffic: Exploring the Role of the Automobile in Open-World Videogames." South West-Texas Popular Culture/American Culture Association's Conference. Albuquerque, New Mexico, February 8-12 2012.

"Disguises for Individualized Social Advocacy: Dressing Up/Addressing 21st-Century Superhero Cinema's Super-Intertextuality." Popular Culture/American Culture Associations' National Conference. San Antonio, Texas, April 22-24 2011.

"Taming the Wild Steed: Man's Enacted Domination Over Nature in *Red Dead Redemption*." Comparative Literature Symposium: Where Have All the Wild Things Gone? Ecocriticism and Comparative Literature. Lubbock, Texas, April 14, 2011.

RESEARCH INTERESTS

Video Games and Critical Theory • Marxism and Financial Capitalism• Network Studies

AWARDS

University of Wisconsin-Milwaukee Chancellor Award, $8,000 (2012)
    Awarded to incoming graduate students based on academic merit by the Graduate Studies Committee of the English Department at University of Wisconsin-Milwaukee

Helen Devitt Jones Scholarship, $10,000 (2010-2012)
    Awarded to five incoming graduate students based on academic merit by the Graduate Studies Committee of the English Department at Texas Tech University

TEACHING

Graduate Teaching Assistant at University of Wisconsin Milwaukee, 2012-Present
- ENG 101, Introduction to College Writing (August 2012-December 2013)
- ENG 102, College Writing and Research (January 2014-Present)
- ENG 215, Introduction to English Studies (January-May 2015)

Instructor at Texas Tech University 2010-2012
- ENGL 1301, Essentials of College Rhetoric (August -December 2011)
- ENGL 1302, Advanced College Rhetoric (January-May 2012)

PROFESSIONAL EXPERIENCE

University of Wisconsin Milwaukee Digital Humanities Lab Developer, 2013

Developers create workshops and handouts for the various programs used by the Digital Humanities Lab. My work focuses on the Unity 3D Game engine and its implications for the Humanities. I also coordinated a series of talks about the relationship between video games and digital humanities.

Multiple Literacy Lab Research Assistant at Texas Tech, 2011

Research Assistants produce videos of dissertation defenses and design and print promotional materials for the English Department. Additionally, the Lab serves as a space for critical engagement with media for student use, and the Assistants function as a tutor for students interested in learning about media.

SERVICE

Center for 21st Century Studies Conference Volunteer, 2013

Helped the Center for 21st Century Studies put on its annual conference. Responsibilities included picking up plenaries from the airport and running technology during breakout sessions.

MIGC Volunteer. 2013-2014

Helped plan and organize the Midwest Interdisciplinary Graduate Conference. Responsibilities included selecting abstracts, organizing panels, and preparing for each days events.

Honors Alumni Mentor, 2011

Mentoring Undergraduates from the University of Central Florida's Honors College on how to be a successful undergraduate student, applying to graduate school and the process of transition from undergraduate to graduate study.

PROFESSIONAL ORGANIZATIONS

Society of Literature Science and the Arts
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