DENIZENS OF VIRTUAL WORLDS: POWER-GAMERS AT "PLAY"

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ABSTRACT

Denizens of Virtual Worlds: Power-Gamers at "Play" Arij Friis-Sheepers

This thesis studies a subset of players of video games called "power-gamers" who play games in a way that mirrors labour as opposed to leisure. Through ethnographic fieldwork and exploration this thesis examines what constitutes "power-gaming" and seeks to unpack the differences between skill, fun, and labour. Chapter One analyzes how ethnographic fieldwork is performed in virtual worlds, and the necessary frameworks inherent to this. Chapter Two explores facets of technical hobbies, masculinity, skill, and how they relate to power-gaming. Chapter Three explores how different cultures globally choose to play-games, and the forms of sociability involved in this play. Chapter Four examines reality in relation to virtual worlds, and how players in virtual worlds explore and unpack their surroundings, which mirrors many scientific practices in the real world. Chapter Five explores narrative structure in games, and their relation to power-gaming practices. Chapter Six concludes with a discussion of power-gamers as a neo-liberal workforce.

Keywords:

power-gamer, gamer, game design, virtual-ethnography, interface, technical hobby, sociability, playbour, theorycraft, worldness, narrative, neoliberalism, labour, virtual reality

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List of Abbreviations

- DPS Damage per Second
- FPS First Person Shooter
- MMO Massively Multiplayer Online
- MMOG Massively Multiplayer Online
- MMOW Massively Multiplayer Online World
- PvE Player versus Environment
- PvP Player versus Player
- RPG Role Playing Game
- RTS Real Time Strategy
- UI-User Interface
- WoW World of Warcraft

Glossary

Addons – Tools that players use in games that provide function outside of the normal interface (also referred to as a Mod).

Azeroth – The name of the world found in World of Warcraft.

Boss – A particularly tough monster, usually with some sort of connection to the story.

Guild – A collection of players, a team.

Healer – A role in MMORPGs which denote the player who keeps the group alive, typically using magical spells to heal wounds.

Mod – See Addons.

Playbour – A hybrid of labour and play.

Quest – A mission in Role Playing games.

Raiding – A mission in a video game where a group of players aims to defeat a boss monster.

Tank – A role in MMORPGs which denotes the player who keeps an enemies attention, taking damage so others in the group do not.

Theorycraft – A combination of mathematical formulas, and modelling that players use to understand virtual spaces.

Worldness – A combination of factors that make a space appear world-like.

INTRODUCTION

Gaming is a term that applies to a wide variety of activities, however the most common use today is that of the video gamer. This is a person that plays games as a hobby, and self-identifies as someone interested in the culture of gaming. However, power-gaming as a practice takes this much further, and a power-gamer plays games in very different ways than other players. At points throughout my research I was hesitant to even call this sort of activity "play" at all, as what I was witnessing and participating in often mimicked work or labour as opposed to the common notion of fun-related playfulness. The best way to understand power-gaming is to draw a parallel with competitive sports. For example, while many people may play soccer for fun, the game is also taken incredibly seriously around the world at a professional level, and outside of the more casual leagues players have varying degrees of seriousness, all the way up to the players who get paid millions of dollars. We still call the participants "soccer players", however at this level they are "playing" as their job. Power-gaming can be seen in this same way, and while power-gamers do not make millions of dollars there are players who get paid, and make their living off of competitive gaming. Power-gaming is not limited to those who make money off of playing the game however, rather it is a set of practices that even more casual players may participate in at times. I am interested in unpacking these practices, and examining – cross-game and cross-genre – the constituent elements of power-gaming. In doing so this thesis will examine what separates work from play, whether power-gaming is culturally informed, and the parallels power-gaming shares with other trades and hobbies as a "skillful" activity. Broadly, it will be discovered that power-gamers and the activities that power-gaming embodies cover much more than

simply playing a game, and extend into the real world in the form of statistical analysis, modeling, economics, and many other subjects that are most definitely not associated with "play" or games in the real world. In this manner power-gamers can be viewed as model capitalist workers, even though what they are really doing is "playing" a game.

This research has been primarily ethnographic, and as such it is first necessary to build a framework of how ethnographic research in virtual space is done by building off of prior ethnographic studies. Chapter One will examine other ethnographies that have been written about gaming, and ethnographic research in virtual worlds. After this framework has been laid, Chapter Two will examine the interface and the term "technical identity". While something as mundane as an interface may seem a silly thing to take interest in, it is the point at which a player interacts with the game and virtual world itself. I start with the interface as this is where the player starts, it is the first point of contact between a player and a game. Mediation, and how this mediation occurs is a large part of understanding virtual worlds and power-gaming. Furthermore the modification of interfaces and more broadly, technology, is a large part of power-gaming and gamer culture. By understanding how players form a technical identity from their hardware and software modifications it becomes clearer that power-gaming is not just about playing games, but also about skill and the knowledge of technology. Chapter Three examines power-gaming as a global phenomenon, and gives a more broad view of how players in different countries, specifically China and Korea, choose to play games, and how this differs from North America and Europe. This chapter also examines the term "playbour" and the lines that become blurred when "play" mimics work, and whether this still counts as playing a game. Chapter Four now moves into the game worlds themselves. This

chapter explores the reality of virtual worlds, and how this relates to practices related to science. The term "theorycraft" (how players explore the virtual worlds that their avatars reside in) becomes key to understanding how power-gamers view and unpack the game itself. Chapter Five covers a term called "worldness"; how world-like a constructed reality is. Worldness is important, specifically in relation to narrative, and the relation that a power-gamer has with a game's story, and the world that surrounds their avatar. Understanding this relationship is necessary, as most players play a game to take part in a narrative, whereas a power-gamer does not necessarily care in the same ways. Throughout these chapters it is my hope that a more clear understanding of power-gaming is obtained, and through doing so we may understand more about what makes "play" playful and "work" laborious, and how skill factors into the equation.

CHAPTER ONE: ETHNOGRAPHY IN VIRTUAL WORLDS

Playing video games, or "gaming", as a leisure-time practice has become increasingly ubiquitous within the past decade. With increasing spread and popularity, gaming has begun to replace television and reading for many as both a new form of entertainment, as well as a new form of media. The explosion in popularity of gaming as a new media and leisure form has generated a "moral panic" in relation to games as addictive, violent, and fostering sexism. Whether games are worth playing, or "productive" is a common debate in private homes and public media, and is often connected in media discussions to violence, sexism, and addiction (Ito et al. 2010:196). "In the past two decades, as electronic gaming has gradually become established as one of the dominant forms of entertainment of our time, there has been widespread debate over the merits of the medium. Some have accused games of promoting violence and sexism." (Ito et al. 2010:196). While these debates continue to rage, the playing of games is not losing popularity, generating 10.5 billion dollars in 2009, with 40% of gamers being female (ESRB 2009). As a media form, video games and the virtual worlds that they create are very different from the media presented within movies, written text, or television. The consumption of media has transitioned from a more passive role in which the story or content is simply delivered to the end-user, to one where the end-user (the player) affects the outcome of the story through his ability to act within, and upon, the story itself:

Within commodity culture such as television, visual elements lack the capacity to instigate participation. Baudrillard (1983) asserted that mass media produce a "narcotized," "mesmerized" consciousness of passive immersion in a spectacle of simulated images. Turkle, a pioneering media theorist, noted that with television, "the body of the television spectator is not in the picture" (1984). (Nardi 2010:92)

With this transition, it is becoming rapidly apparent that consumers (players) of game media are not only able to "play" games, but also reside within the virtual spaces and worlds that they create (Boellstorff 2008:5, Nardi 2010:77, Taylor 2006:11). As these studies and many others show, cultures form not only around games, but also within (and between) virtual spaces, with players choosing not only what they play, but how they play (Boellstorff 2008:7, Ito et al. 2010:195, Nardi 2010:5, Taylor 2006:30-31).

Within this broader set of emerging trends and attendant literatures, the following thesis is a primarily ethnographic study of a specific aspect of player culture and practice. I am primarily interested in a very specific subset of players that will be called "powergamers" (Taylor 2003:3). Power-gamers, often referred to colloquially as "hardcore" (as opposed to "casual") gamers are players who seek to maximize their experience within the game world by exploring the technical ecology in which they are immersed. The ways in which they maximize this experience, however, can vary according to personal taste and choice: the specific game that is being played, the genre of the game, and the degree of maximization desired. I have experienced the practice of power-gaming firsthand as an anthropologist in MMO (Massively Multiplayer Online) games, including most extensively within the world of Azeroth from Blizzard Entertainment's wildly popular 2003 title, World of Warcraft (WoW). For this reason, I will draw upon my primary ethnographic fieldwork from World of Warcraft as well as my broader research within MMOs as a genre to dissect what it truly means to be a power-gamer, and how this subset of gamers, varied though their desires and physical locations may be, can influence the leisure-time activity of "gaming" most are familiar with as a whole. I will be comparing this experience to other anthropological ethnographies of power-gamers in

Azeroth and other worlds, specifically looking at T.L. Taylor's experiences in *EverQuest* and Bonnie Nardi's experiences in *WoW*.

Ethnographic Framework

As a general practice, gaming has been the topic of multiple ethnographies (for example, Golub 2010, Ito et al. 2010, Nardi 2010, Taylor 2006), a practice which also intersects with the most frequent location of gaming, ethnographies of a phenomenon of so-called "virtual worlds" (for example, Boellstorff 2008, Dibbell 1993, Turkle 1995). While power-gaming is often mentioned when discussing virtual worlds, little work has been done specifically on the topic. There are a few major exceptions, all of them ethnographic in focus: T.L. Taylor has written about power-gaming in *Everquest* at length (2006:67-92), and her work will serve as an important framework for my own research. Although *Everquest* predates *WoW*, the power-gaming seen in *Everquest* is nevertheless similar to power-gaming in *WoW*, due in part to their shared genre as MMOs; in fact, *Everquest* is often seen as *WoW's* direct predecessor in the genre of MMOs, and as such there are many comparisons to be made. In addition to Taylor's work I will also draw from the research methods of two parallel and overlapping kinds of ethnographies: those like Tom Boellstorff's Coming of Age in Second Life (2008), which ethnographically study virtual worlds that are not games, or so-called MMOWs (Massively Multiple Online Worlds), and those like Bonnie Nardi's My Life as a Night *Elf Priest* (2010), which specifically deal with those virtual worlds which are also games, called MMOGs (Massively Multiplayer Online Games), with the latter being especially relevant to my work since it too focuses on the virtual world of *WoW*. In combination, these will serve as a framework for performing fieldwork within a virtual space that

partakes of aspects of both MMOWs and MMOGs. Since Nardi's work is on a virtual world that is also a game, *WoW*, the same world that I am working on, it will be especially relevant to my own research. Nardi specifically focuses on the kinds of high-end "raiding guilds" that I am also studying, so her ethnography will be a frequent interlocutor for my work.

Some of the methodological problems I address here belong to the ethnography of virtual worlds in general, whether they are games or not. For example, doing fieldwork within a virtual world requires the assumption that "virtual worlds are legitimate sites of culture" (Boellstorff 2008:61). Doing ethnography within Azeroth means that the game world has become a real space that is separate from our own reality. While it is necessary to talk about the "real" world in relation to virtual spaces, it is also necessary to accept the virtual space as something separate, yet inherently linked to the reality that the player is physically sitting in. The "real" world informs the virtual world, and the reverse is also true. This goes against the assumption that online cultures are "ultimately predicated upon actual-world cultures" (Boellstorff 2008:62). As Boellstorff argues, because virtual worlds are "meaningful sites for social interaction", cultures and sub-cultures will be created independently of real world cultures, but are ultimately reliant upon them to exist at all (Boellstorff 2008:62). Much like Boellstorff, I am methodologically less interested in who the player is in the real-world (which is inaccessible to me in any case), and more in how the player's avatar interacts with the virtual space. The player is obviously an important aspect in the interaction of the virtual and the real; however, "real" details (such as the job they hold or the car they drive) are typically unimportant to this interaction. While the player as an entity, and certain actions the player makes, do

overlap as important aspects both of the virtual and our own reality, the mundane parts of everyday life are unimportant when examining these players on the merits of their actions within the virtual. It is only when the actions made by the player in the real world affect actions or outcomes in the virtual world – or vice versa – that those actions and interactions become relevant to this study. Questions of player identity, the mapping or lack thereof of offline status variables such as gender, age, etc., to online selfrepresentations, and the implications that gaming has on their real world lives has been studied a great deal (Boellstorff 2008:119, Nardi 2010:108, Taylor 2002:42), but this is, to a certain extent, an analytically separable question from gamer identity, namely how individual players construct themselves as gamers, possessing specific attributes and skills within, and relevant to, their online performance as gamers. Hence, questions of player identity are bracketed in this thesis: since the players themselves have limited and mostly inferential access to each other's autobiographical "real world identities," mostly limited to what they can infer from chat and especially voice chat, collecting actual information about player identity is no more germane to their shared lives as powergamers as it would be, for example, to collect information about their bathroom habits; for most purposes it is sufficient to know when a player says "bio" that they are attending to the biological needs of an offline body, this identity is posited, but like the specific details of the "bio" break itself, it is not explored. When not involved in power-gaming activities, such as "raiding" in WoW, players may choose to explore each other's real world identities; however, this is inconsequential to the actual practice of power-gaming itself. The emphasis is placed on player proficiency which stems from the avatar's identity, not from that of the players themselves. In fact, proficiency in the game world is

exhibited by the avatar, as the body that controls the physical keyboard and mouse is not visible to other players.

That said, it is clear that the relation of offline player identity to online player identity is a matter of concern for players and informs player interactions. For the purposes of this thesis, the most important of these are gender issues, which has been a focal point for a great deal of scholarly interventions as well as moral panic (Boellstorff 2008:138, Golub 2010, Nardi 2010:152, Taylor 2006:93). Gender is a particularly good example because it is not only a property of player offline identity and embodiment, but also a property of player avatar embodiment (which must be male or female). As a result, gender identity and embodiment in online worlds are complex because of the multiple referents of the term gender (offline versus online avatar gender) and the multiple possible mappings between player gender and enactments of gender online. These issues have been much explored in the literature, but the multiple referents of the term gender, the multiple mappings possible, and the multiple gendered affordances of the online environment are relevant in specific ways to the online environments. Nardi like many others observes the fact that there is a systematic disjuncture between offline gender and online gender, such that male players often play female avatars, while female players tend to prefer to player female avatars, is a frequent cause for comment and concern (Nardi 2010:159). Male players playing female characters seek to defuse potential questions by identifying this act as an expression of their heterosexuality to avoid any imputations of gender dysphoria. "When we interviewed males about why they chose female characters, they said two things. 'Why not?' and 'If I have to look at someone's ass for three hours, it's going to be a girl's" (Nardi 2010:159). As Nardi also points out,

the fact that most of the online females are also offline males reinforced the gaming space as a structurally masculine "boy's treehouse" where the potential sexuality of often very sexualized online avatars was in effect defused (because male players would not sexualize female avatars because they were aware these were actually offline males) and where girls are at best guests (Nardi 2010:167). This overt and covert gendering of the gaming space inflects the seemingly ungendered category of "gamer", which is based, as we will see, on seemingly technical aspects of skill and performance, with gender, and this gendering of technical identity in particular, having a powerful interaction systematically with player attempts to establish themselves as a "gamer", particularly for female gamers, as Nardi and many others have pointed out. This is, however, no surprise to studies of other constructions of technical hobby spaces and technical identities as being masculine, for example the masculine hobby world of Ham Radio deserves comparison (Haring 2003, 2007):

To date, attention to technical competence as a component of masculinity has been most common in studies of the work environment. Several studies document that the skilled or physically demanding operation of machines has repeatedly been used to identify workers as masculine and restrict women from the workplace. Technical interactivity similarly marked some pastimes as masculine, though fewer scholarly works have addressed this topic. Ruth Oldenziel's history of the Fisher Body Company's model-building program for boys and young men, for example, explained that Fisher emphasized the positive masculine traits developed through participation in its technically oriented Craftsman's Guild.15 The context of leisure and the home—versus the male-dominated industrial workplace—highlights overlooked challenges to the construction of masculinity around technology. Ham radio bolstered male identity, but it also came with disadvantages and did not simply overpower existing gender relations. (Haring 2003:738-739)

Thus, there are ways that offline player identity can be relevant to the construction and maintenance of online "technical" gamer identities, and given global ways in our culture

that skill and technical proficiency are seen as being enactments of masculinity, gender would be first and foremost among these things. I will occasionally be attending to offline identities therefore, for example, in my comparison of forms of gaming sociability in different real world geographic cultures. But for the most part, I am specifically interested in how power-gamers achieve their gamerly identities through enactments of skill: "Video games afford rich stimulation to visual sensibilities while at the same time developing complex spaces of performance with opportunities for mastery and active participation" (Nardi 2010:52). Skill and performance in the case of *WoW* and other games are intertwined, and as such, skill cannot be faked by a player: "In Magtheridon's Lair, either you can click the cube at the right moment or you cannot. There is no way to disguise an inability to perform this action precisely and accurately. Bardzell and Bardzell said, 'A subjectivity . . . cannot lie; it is as it does'" (Nardi 2010:56-57). Because of this I will be following T. L. Taylor in seeing the online world, and online embodiment, as a reality sui generis which can be studied in its own terms:

Because I am keenly interested in not only the relationship between the corporeal and online body but in the nature of digital embodiment *itself*, I felt it was important to use the electronic medium as a valid research site. Taking seriously the notion that online life might carry a legitimate presence in and of itself that needs to be explored, led me to actively work within the medium. In addition to approaching virtual environments this way, I made a conscious decision to directly orient to the bodies and selves I found there. Although a researcher may choose to use online life and phenomena as simply a reflection or extension of offline experience, I was interested in exploring the space as, at least partially, a thing in itself. (Taylor 1999:437)

One challenge in the study of power-gaming is how exactly one goes about gathering data in a virtual world, especially when the culture can be difficult and time consuming to gain access to. The short answer to this challenge is that you have to play, and in the case of studying power-gaming, you have to play a lot (Nardi 2010:9). Some days I may come home and sit down to play the game, but if an idea occurs to me, or if something interesting has happened amongst the players I interact with, I will record it or write it down and save it for later use, even if I have no real goal in mind at the time of recording. Also similar to Nardi's approach, recorded in-game chat logs can serve as a very valuable resource:

As an example of this style of data collection, I have amassed thousands of pages of chat logs recorded with a game function, /chatlog, which creates a file with a record of all chat in the chat window. I do not always know what I am going to do with the logs, but when a question begins to simmer I have rich data to consult. (Nardi 2010:28)

These chat logs are not always useful, and often simply contain the goings-on in the world around me at the time; this results in having a vast collection of searchable information of player interaction with both the world and others.

When I play the game I am engaging in "participant-observation." As Nardi states, it would be nearly impossible to grasp the game without playing it, and thus my approach mirrors hers in that I lean more toward participating and less toward observation (Nardi 2010:28). Through this participation I am able to understand not only how the game is played, but also how a power-gamer plays the game, as I myself am performing power-gaming activities. This leads to an understanding of why and how power-gamers reside within virtual worlds. For example, it is important not only to understand the fact that interface modifications are used, but also to understand why they are used and why they are important to a power-gamer specifically. But aside from needing to participate in order to understand, it is pertinent that in an MMO the anthropologist plays the game, simply because the avatar is central to the fieldwork.

When thinking of the avatar we must not think of the user and the avatar as one body, but instead view them as two bodies. Your avatar is not you, however you extend parts of yourself into the avatar, and in this way when playing a game you inhabit two distinct bodies; your real body, and your avatar. The avatar must be viewed as a virtual body within a virtual world: "Our bodies are central to our lives as social beings. They shape and facilitate our identity as well as our interactions and experience with the world and others" (Taylor 1999:437). There is no way to experience a virtual world without stepping into a virtual body; thus we must treat the avatar as a body separate from our own, but still one that we inhabit. In order to engage effectively with a community that resides primarily within a virtual world, an anthropologist must then assume an avatar in order to engage with this community: "The bodies users create and use in virtual spaces become inextricably linked to their performance of self and engagement in the community" (Taylor 1999:438). Reversing what Taylor states leads to the assumption that without a body within a virtual world, meaningful engagement with the community becomes impossible. Without an avatar, and thus without playing, the anthropologist cannot gain access to the world being studied; in the case of both Nardi and myself that world is Azeroth within *WoW*. By playing the game and creating an avatar, the anthropologist is able to situate themselves within the actual field; if this were not done and an avatar was not created, it would be nearly impossible to understand how interactions occur. It would be similar to the "armchair anthropology" of the past, wherein the anthropologist never leaves their study. Entering the game world and extending oneself into the avatar is integral to understanding the cultures that exist within these virtual worlds. Understanding or focusing solely on what exists outside of these worlds would serve only a skewed picture of their reality.

My primary methods for this research will closely follow those used by Nardi in her work. Nardi uses standard anthropological methods, including interviews, participant observation, informal conversation, and analysis of literature (Nardi 2010:30). Because most interaction occurs within a public setting, much of what is recorded will simply involve day-to-day interaction rather than any sort of formal interview. *WoW* websites such as player communities, Wikis, and forums will also be utilized extensively.

While playstyles around the globe differ, the primary ethnographic fieldwork conducted in this study will be completed in North America. Since I own a North American copy of *WoW*, my only access to its servers is through the North American datacenters; as such, commentary on Asian and European playstyles will be examined via secondary sources rather than my own first-hand experiences. Comparisons will be drawn on how players "play" not only within differing genres of games, but also within differing geographical areas.

Gamers around the world come from diverse backgrounds, and typically do not play only one game, let alone only one genre. In MMOs, power-gaming is not unique to the world of Azeroth; indeed, power-gaming can occur in any game, and most certainly can and does occur in other MMOs as well as other genres. Therefore, in order to obtain a better understanding of how power-gaming differs across platforms and genres, unlike Nardi and Boellstorff I will be exploring more than one virtual world. The ways in which a player interacts with and within a game world are dictated by the style, and ultimately the genre, of the game itself. The primary genres that will be explored in this research are

MMO (Massively Multiplayer Online), RTS (Real Time Strategy), and FPS (First Person Shooters). However, the different genres demand different methods of interaction and understanding. MMOs place the player into a virtual world via an avatar, and powergaming is done through this avatar; therefore in the case of MMO games we can treat the game world as a separate reality. As an anthropologist doing fieldwork on MMOs, I am doing fieldwork *in* the game-world via an extension of self (my avatar). However, doing fieldwork on RTS and FPS games is quite different, as more emphasis is placed on the player as separate from the game world. In RTS games, the player is controlling units, and is typically not intrinsically linked to any sort of story, nor is the player present in the game world in any sense, as they are in MMOs. While FPS games do attempt to place the player into the game world via storylines and other methods, FPS games played at a competitive level are typically devoid of story and battles take places on separate "maps" or levels as opposed to an actualized world. This difference between level of immersion and genre results in a need to examine not only the virtual world, but how we interact with the virtual world and the avatar; via the interface. Kristine Jørgensen states that the interface "should therefore be seen not so much as a feature that is similar for all games, but more in terms of a collection of techniques used for communicating necessary information and allowing the player to interact with the mediated environment" (Jørgensen 2012:146). This thesis will examine the interface in terms of how it mediates the player and the game world, and furthermore, how power-gamers abuse and modify this mediation to suit their own needs.

Furthermore, the ways in which one's identity is linked to the avatar - (or lack thereof) - differs depending on the genre of game being played. While in *WoW* these

"gamer-tags" (or names) are linked to the avatar, in RTS and FPS games they are linked to the actual player that is playing the game. Due to this, this thesis will primarily emphasize MMOs as actual field-sites and will explore FPS and RTS in order to compare how power-gamers play in other genres. Game genres in this sense must be seen as fundamentally different types of worlds; different environments will spawn different types of play, and we must be careful not to throw all games into the same category. Jørgensen researched players playing a variety of genres of games, including *Crysis* (an FPS), *Diablo II* (an RPG), and *Command and Conquer 3* (an RTS), and came to a similar conclusion:

In all games, the player takes on a *role*. However, this is not to say that they take on the role of a *character*. A character needs characterization or a degree of personality, but a role is a social function and behaviour associated with it. The difference between the games above with respect to player roles, is whether the role has a direct, one-to-one relationship to the gameworld or not. (Jørgensen 2009:7)

Extrapolating upon this, the role chosen by a player will dictate a player's sense of identity. This will influence not only how the player identifies him or herself within the game world, but also how others that play that player identify him or her. This hinges on factors such as whether an avatar is present, how the avatar is presented, and how the interface allows interaction with the game and the avatar.

Fieldwork within Azeroth

Following within the framework I have set out, fieldwork in Azeroth will be completed through avatars within the game world. Within Azeroth my avatar is known by the name "Arij"; my alternate characters typically have a name that reflects this "main" character's name, and thus, my online identity. I am a level 100 Tauren Warrior, with

Warriors being one of eleven "classes" that a player can choose to play. The game starts the player at level 1 when a new avatar is created, and as the player does "quests" they receive experience points which slowly "levels" the avatar up to a maximum level of 100. Quests are small story lines which reward an avatar's progression via equipment, gold (the primary currency in Azeroth), and experience points. The maximum level possible (or the "level cap") has increased from level 60 to 100 over the course of the ten years that *WoW* has existed, and Blizzard Entertainment raises this level cap in various increments for each subsequent expansion to the original game that they produce. At the time of writing the game is in its fifth expansion pack, titled *Warlords of Draenor*, which allows me to reach level 100. Figure 1 depicts my avatar "Arij" in the field. This is one of the primary modes of communication to others in Azeroth; much of the interaction with my guildmates and other players is done through this avatar. While my avatar is my primary mode of interaction in the field, other equally important ways of communicating, specifically with my guild, also exist, primarily in the form of voice chat using a program called Mumble. Mumble is not part of the standard game, rather, it is a third party program which organized guilds use in order to communicate with their voices instead of typing to each other, which would be too slow and confusing to read while engaging in combat.



Figure 1. Here is my avatar waving for the camera

Ways to Play: Theme Parks and Sandboxes

In order to study virtual worlds and games it is important to understand that there are multiple ways to play an MMO. Even in *WoW* I am playing and studying a specific form of play that is by no means the only or "correct" form. To this end, a thorough understanding of the basics of how most MMOs are laid out today is integral to their study. In *WoW* and other similar MMOs, there is no end to the story or game, and one is in a constantly changing and ever-expanding world. As such, the goal of playing the game is subjective, and a player can do whatever he or she wants. Furthermore, the style of MMO (there are many) will dictate the kinds of goals players seek. *WoW* is known as a "theme park" MMO, which means that there are many paths a player can follow; however, all of these paths are laid out by the game developer. The game developer ultimately controls what a player may see and do, although players do have a sense of freedom as they can choose when and how they accomplish these goals (Penelopae

(Username) 2012). In *WoW*, the primary goals are "PvE" (Player versus Environment) and "PvP" (Player versus Player). Since these goals are only available on a competitive level once an avatar reaches maximum level, they are known as "end-game" goals. This does not mean, however, that this is the end of the game; on the contrary many players would argue that the game does not even truly begin (to get good) until one reaches the maximum level.

A "sandbox" MMO is very different from a theme park MMO, and this spawns different types of power-gaming. As part of my research, I also completed fieldwork in the world of Erenor which exists in the game *ArcheAge* by Trion Worlds. This type of game emphasizes player-created content and does not set players on a pre-determined path. As such, rather than waiting for "end-game" content, a player can do what he or she wants from the very beginning:

A sandbox is a style of game in which minimal character limitations are placed on the gamer, allowing the gamer to roam and change a virtual world at will. In contrast to a progression-style game, a sandbox game emphasizes roaming and allows a gamer to select tasks. Instead of featuring segmented areas or numbered levels, a sandbox game usually occurs in a "world" to which the gamer has full access from start to finish. A sandbox game is also known as an open-world or free-roaming game. (Janssen 2014)

This encourages differing power-gaming activities even though these games are both MMOs. Genre, sub-genre, and the ways in which they encourage different styles of power-gaming will be discussed in further depth later, when differences in genre are also analyzed.

Community

In WoW, my avatar belongs to a guild named "Tyranny" consisting of other likeminded players united under a shared goal of PvE (Player versus Environment) "progression." PvE in WoW consists of players teaming together to fight NPC (Non-Player Character) enemies. Unlike avatars, which are controlled by real-world players in real-time, these enemies are controlled by AI (Artificial Intelligence) which is prescripted by the game developers, and killing them, whether it be on a quest or in a dungeon, is one of the primary ways in which players progress through the game. "Progression PvE," however, most commonly refers to something called "raiding." Raiding is the act of taking a team of ten to forty players into an "instanced" (that is, set apart from the main public game world) dungeon with the goal of competing in highly choreographed and challenging boss fights in order to gain loot, and, for hardcore guilds such as Tyranny, notoriety, expressed in gaining ranks on the world ladder, and competing with other guilds for first kills. This kind of activity requires teamwork, coordination, and dedication of time. Progression players who aim to compete at a high level treat this sort of activity much like competitive sports, where a team gathers together for a set amount of times per week in order to compete. During her fieldwork, Nardi also participated in PvE competition, noting the following:

Parties and raids are temporary groups formed to accomplish a goal such as a quest or raid. They are composed of players with different, interdependent skills. Players choose a "class" — priest, paladin, mage, warlock, rogue, hunter, shaman, druid, warrior, or death knight — each of which has its own distinctive skills. Skills are divided into *damage* classes, whose powerful weapons and spells kill the monsters; heavily armored *tank* classes which use their abilities to gain the attention of the monsters to keep them from attacking others; and, *healing* classes which restore players as they are attacked. Healers must ensure the survival of tanks, without whom the group will almost certainly perish. (Nardi 2010:15)

As my avatar, my role in the raid is to be a "tank," a role in which Warriors – my class excel. Although competitive guilds often contain an excess number of players on the guild's roster, only twenty players may be in a "Mythic" (the hardest, and therefore most elite) difficulty raid at a time. This allows for the switching of different roles and classes in order to fit each fight's needs more appropriately. However, any gamer can assume the role of a tank; although roles do play a part, what sets Tyranny's players apart from others is, not necessarily what role they fill, but how they play the game.

Tyranny is a guild comprised solely of power-gamers. While not everything a player does is power-gaming oriented, the main goal of players on this team is to be as good at the game, and as subjectively successful in it, as they can be. Throughout these chapters, the ways in which these players explore the game world, and how this differs from more casual players will be analyzed. It will be concluded that power-gamers and how they "play" appears very similar to "Taylorism" with power-gamers appearing as model capitalist workers, even though what they are actually doing is playing games. The ultimate goal is not an overarching argument, but rather a thematic dissemination of the ways in which power-gaming manifests in players, and how this culture has emerged in game media.

CHAPTER TWO: INTERFACE AND TECHNICAL CULTURE

If we view digital games as a form of media in the same way that we view television, books, and movies as forms of media, it is apparent that games differ in the presentation. While other versions of visual media and text present the image, sound, or words directly to the consumer, games are mediated by an interface far different than the more traditional interfaces encountered on the television or through the act of reading a book. Interfaces in games have become an integral part of the experience, as well as another tool power-gamers can use to take advantage of their worlds. Through the ability to modify their individual interfaces, power-gamers are able to alter their individual experiences within games. These modifications do not stop at the interface and can go as far as modifying the actual hardware that is being used to play games on. Similar to how a better TV affects how clear the picture is, modifying and customizing computer hardware can impact game play a great deal; Bart Simon agrees, stating:

The desire for a better play experience that drives the hardcore gamer to know his machine and to make the time to transport it all the way to a LAN party (when he could just be playing online) ultimately leads back to the material hardware as the necessary condition of the game in the first place. (Simon 2007:185)

This chapter will explore the affordances of the interface, as well as hardware, and the ways in which the identity of the power gamer is expressed by specifically using such tools to their advantage in order to create what Kristen Haring terms a "technical hobby." Haring uses this term to describe a hobby that necessitates technical knowledge to participate within: "To count as a technical hobby in my description, the productive recreation essential to hobbies must require some technical understanding or skill beyond simply how to operate a technology." (Haring 2007:2). Power-gamers, and specifically those in *WoW*, use the interface not only as a way to bridge the gap between themselves and the game, but also as a way to socialize, as modifying these interfaces is an integral part of power-gamer culture. This behavior can be found in many MMOs, and extends past interfaces to the hardware that is used as well. In this regard, power-gamers require some level of technical expertise in order to play the game to their - and their teammates' – standards. The ways in which interface modification becomes a form of sociability as well as a form of identity implicit to power-gaming will be explored in this chapter, and I will argue that power-gamers form a type of technical identity that relies on both the sociability and the modification of their interface and hardware.

What is an Interface?

Interfaces surround us in our daily technological lives. We use them constantly: smart phones, computer systems, tablets, satellite radios, and cable televisions are all accessed via interfaces. Even day-to-day appliances like stoves and refrigerators are increasingly becoming technologized to the point of utilizing interfaces to access features. The use of "smart" in conjunction with technology in today's world typically indicates a movement away from analog control systems toward digital ones, a movement that necessitates interfaces in order to interact with technology. In this sense, "interface" is a term that denotes mediation between technology and user. There must currently always exist layer(s) of translation, so that humans are able to communicate with machines, and vice versa.

In our contemporary technological culture, there is a marked tendency to regard "touch" technologies, which use hand swipes (and in some cases gestures) to carry out commands, as being more advanced - the "interface of the future." For example, science fiction films that depict computers of the future (for example, *Minority Report*, or *Iron* Man) seem to lack traditional interfaces of any form, responding only to human gesturebased interfaces. Such interfaces strive to mimic the natural way people gesture, attempting to transcend the artificial nature of the interface itself by attempting not to be interfaces at all. However, this is misleading, and such interfaces, despite their "futuristic" appearance, must still be viewed as mediators. There is still a mediation occurring, with the only difference being the manipulation of the elements of the interface by the user; instead of a mouse, keyboard, or button presses, one manipulates by swiping or gesturing. Although "smart" mediation appears more "natural" to the human eye, the machine does not understand such movements inherently; they must still be translated to machine code thus only misleadingly mimicking a natural interface. It may feel more "natural" to touch something without the sense of the mediation that occurs when one uses a keyboard or mouse; however, the mediation is simply masked by technology. Modern everyday models of technology involve theories of progress which, in this case, involve fantasies of greater immediacy such as "natural" interfaces. However, as Donald A. Norman states in the title of his article on the topic, "natural user interfaces are not natural" (Norman 2010). But then again, neither, he says, are the keyboard nor the mouse: "None of these systems is inherently more natural than the others. The mouse and keyboard are not natural." (Norman 2010:10). The naturalistic fantasy of immediacy is also critiqued by authors Katie Salen and Eric Zimmerman in relation to something they call the "immersive fallacy":

There is no doubt that the immediacy of sensory engagement is part of the pleasure of playing a game, particularly digital games with detailed representations that respond in real-time to player action. The immersive fallacy grossly overemphasizes these forms of pleasure, and in so doing, misrepresents Interfaces which attempt to be "natural" or minimalistic are, in fact, just forms of the immersive fallacy, and function as fantasies of immediacy. Understanding how game interfaces work, and what they are supposed to accomplish, is necessary to understanding the ways in which a power-gamer utilizes and manipulates the interface in relation to a regular player.

the diverse palette of experiences games offer. (Salen and Zimmerman 2003:445)

Thinking of our interactions with machines in layers of mediation is essential to understanding digital spaces. This type of metaphor extends to how computers are programmed and how code is written. The first layer is the person, sitting at a desk or looking at a device. The second layer is the screen, where the information is presented and displayed. The third layer is the interface that is present on the actual screen. The fourth layer and beyond is comprised of the code and machine language behind the interface. When we interact with what we believe to be the interface, it is in fact just a translation of our input into the computer's language, which makes it possible for us to communicate with our technology. Without this layer of translation only the select few who can read code and machine language would be able control these technologies. Even then, due to the complex nature of our technology today, such codes would likely be unreadable, or at least functionally unusable by even the most adept at reading these languages. It is because of this fact that interfaces are necessary, and not just an aesthetically pleasing way to present data and media.

Game media, however, utilize interfaces in ways that other common technologies do not. In games such as WoW where a virtual world is created, an additional layer is added to our metaphor. The fifth layer is comprised of the virtual world that the player's

avatar inhabits. The interface of the game allows the player to control the avatar, as well as enabling him or her to interact with the virtual world; therefore, without the interface, the game becomes unplayable. Viewing the avatar as an extension of self is important in understanding this interaction. When thinking of oneself as a player-character, one is treating the avatar as a representation of one's own body inside a virtual space. The interface therefore must exist as a bridge, acting as a translator between the player's thoughts, and the avatar's actions in the virtual space. However, because of this role, the interface can also impede play. If it suddenly becomes unresponsive ("laggy") it can cause frustration as it halts all progress until the issue is resolved. When the bridge breaks down in this manner the avatar becomes something other than an extension of self. The "lag" creates a delay in real time versus game time, which affects the player's ability to play the game properly. Boellstorff defines lag as such:

Lag is nothing less than an interruption in the thrownness of temporality, a breakdown of time made possible by the gap between virtual and actual. In this sense, lag is an annoyance but it is also a kind of gift from virtual worlds; it represents a moment of breakdown demonstrating the cultural construction of time. (Boellstorff 2008:106)

This is all mediated by the interface, which is typically what lag refers to. Lag in the most general sense is the breakdown of communication between the player's interface and the game. When experiencing lag, one may press a command on a keyboard - which corresponds to the interface - and nothing may happen, or the action may be delayed due to the lag. When this breakdown occurs, the player experiences "lag," which most commonly manifests as the game freezing, being choppy, or even disconnecting players. "Latency" refers to a specific type of lag that occurs when a player has a longer delay in time ("high latency") between sending input from their computer system and the game

server recognizing said input, due to their internet connection. This means that their computer takes longer to communicate with the game server than other players' computers, which causes that player to lag, both on their screen, as well as on other player's screens. In this way, lag can affect not only the player who is experiencing it, but also other players who attempt to interact with that player. This can be seen in *WoW* raids when someone makes a mistake during a complicated fight and attributes this to lag, or when the server crashes causing an entire team of players to die. Boellstorff also encounters this in *Second Life*:

For instance, one day I was participating in a trivia game when one resident shouted out an answer. Then another resident complained "The lag ate me! I was going to say that!" In other words, in the actual world this person knew the answer to the trivia question, but her avatar was unable to express her thoughts in the virtual world because of lag. (Boellstorff 2008:102)

In this way, the interface can be seen as both a playing piece in the game overall, as well as a bridge which allows control; nevertheless, if this bridge breaks down, the game becomes essentially unplayable.

Every genre of game has interfaces; however, games vary according to the visibility of their interface, and this visibility correlates to different styles of gameplay, and is constitutive of genre. While the type of genre typically dictates what features will be necessary within these interfaces, all interfaces serve the same fundamental function: to act as a bridge between our real-world reality and the game's virtual space. Furthermore, the game's perspective –whether it be first person or third person - directly impacts which kind of interface is used. Jørgensen states that interfaces should not be seen as similar across all games, but more so a "collection of techniques":
The interface is a relation effect that creates coherence between otherwise uncombinable domains (Galloway, 2008, p. 941). It should therefore be seen not so much as a feature that is similar for all games, but more in terms of a collection of techniques used for communicating necessary information and allowing the player to interact with the mediated environment. (Jørgensen 2012:146)

FPS (First-Person Shooter) games typically utilize a more minimalistic interface so as to immerse the player in the experience of being in the virtual world directly. Third-person games often follow the same principles, however the genre of the game will dictate further features included. MMOs, which are typically third-person in perspective, utilize extensive interfaces in order to allow the player to interact with the world in complicated ways. While players are able to switch between perspectives in MMOs by manipulating the camera, a game such as *WoW* becomes functionally unplayable as it is not possible to see your surroundings, indicating that the game was not designed with a first-person perspective in mind, at least for combat. Because MMOs typically have more complexity in their general gameplay than FPS games, the interfaces become more complicated. RTS games, on the other hand, do not typically utilize avatars; instead, the player sees a topdown camera angle of an environment, from which perspective the player controls their "units" (elements in the game world). Therefore, the interface of a traditional RTS game facilitates this by utilizing an interface similar in style to that of an MMO. In general, game interfaces can be reduced into three categories: minimalistic (e.g. first-person shooters), hybridized (often bridging genre type; e.g. third-person shooters, FPSMMOs), and complex (e.g. MMOs – Massively Multiplayer Online games, RTS – Real Time Strategy games, RPG – Role-Playing Games). These interface categories incorporate Jørgensen's interface typologies: iconic, integrated, and metaphorical (Jørgensen

2012:147). An iconic interface has many aspects of what I would call either a

minimalistic or hybridized interface, depending on the game:

An interface feature may be iconic or "invisible" in the sense that it corresponds to features that occur naturally in the physical world, at the same time as it provides gameplay information to the player: the specific armor that an avatar wears in World of Warcraft signals relative power, but it is not highlighted or otherwise enhanced. Objects that appear to be natural to the game world can also be specifically emphasized, exemplified by Crysis where targeted enemies are highlighted in red. (Jørgensen 2012:147)

An integrated interface contains elements not natural to the game's world, but are added

as necessary information for the player. This falls under the category of a complex

interface:

Interface features can be integrated, such as the exclamation marks in Diablo 2; while being added for the player's information and not corresponding to anything we know from the physical world, these features behave as if they are part of the game world by following a particular character. The interface can also be added as an overlay that provides the player with the ability to interact with the game world, such as the traditional superimposed frames that we see in strategy and simulation games like Command & Conquer 3 and The Sims 2. (Jørgensen 2012:147)

The metaphorical interface extends to interface elements that affect the game world while

appearing as an external element, such as music. This type of interface would also be

labelled minimalistic:

We can also identify the metaphorical interface, which has the ability to affect the game world even though it appears external to it; this is typically exemplified by enemy music that signals approaching danger. With the exception of iconic interface features that are completely integrated into the game world, these interface examples are all in different ways located on the threshold between the game system and the game world, combining them functionally and thereby posing the question where the interface ends and the game world begins. (Jørgensen 2012:147)

I will argue that specific game genres favour specific features or characteristics. Powergamers often end up abusing or modifying specific parts of the interface in ways that other gamers may not, and this results in the power-gamer inhabiting a game space that other gamers do not or cannot occupy.

Minimalism and the Fantasy of Immediacy

For some, it seems, the ultimate goal of game development and gaming technology would be that of virtual reality, to totally immerse players in the virtual world that has been created for them. This would result in no visible mediation and no visible interface; that is, total immersion. Although true virtual reality is not yet possible, game developers continue to design interface elements and technologies that are designed to immerse players ever-further into the game; one such example being the pseudo virtual reality afforded by the technology of the Oculus Rift.

Minimalistic interfaces such as those found in many First-Person Shooter (FPS) games try to minimize the intrusion of the interface to increase immersion. According to Katie Salen and Eric Zimmerman, game designers often succumb to the "immersive fallacy," believing that players can be fully immersed to the degree that they will forget that the interface is actually there:

The immersive fallacy is the idea that the pleasure of a media experience lies in its ability to sensually transport the participant into an illusory, simulated reality. According to the immersive fallacy, this reality is so complete that ideally the frame falls away so that the player truly believes that he or she is part of an imaginary world. (Salen and Zimmerman 2003:443)

Salen and Zimmerman argue that the game does not immerse players by making them think that they are in a different place or world, but instead immerses players through

play itself (Salen and Zimmerman 2003:444). A player is always aware of the interface, and power-gamers specifically pay a great deal of attention to it, yet players are still able to be immersed through the story, or through the enjoyment derived from the act of playing the game. This shifts the focus of design from one of immersion to one of immediacy. While designers are attempting to make interfaces less and less visible with the goal of increasing player immersion, it will never be possible to make players forget that they are playing a game and believe that they are living within it, due to the fact that the interface will always be a necessary component until virtual reality makes it possible to hide the interface sufficiently without causing a significant impact to playability. Jay David Bolter and Richard Grusin discuss immediacy in terms of virtual reality, stating that "virtual reality is immersive, which means that it is a medium whose purpose is to disappear. This disappearing act, however, is made difficult by the apparatus that virtual reality requires" (Bolter and Grusin 2000:23). Although Bolter and Grusin apply immediacy to virtual reality, their definition of immediacy can extend to any current technology that is inherently linked to an interface, including the current forms of video games. As Bolter and Grusin state, even if the interface is hidden within the game world, the technology required to make this invisibility possible will likely be visible itself, and, as such, it still will never be truly immersive.

As technology improves, designers also attempt to minimize, reduce, or totally disappear interfaces as products of technology. This creates a fantasy of immediacy wherein the user imagines that they are directly controlling the machine, since the technology actually necessary to do so is hidden. From gesture and voice commands to swipe technology, this fantasy is ever-present in our increasingly technological world. This fantasy of immediacy is also present within game interfaces as well. Genres of games which strive for immersion often attempt to limit the amount of visual interface necessary for the player, or merge this interface into the fantasy of the game itself. This combines a fantasy of immediacy with the fallacy of immersion.

The fantasy of being inside the game, as opposed to playing outside of the game, is evidence of a steady progression of consumer involvement with media. This progression is especially visible when one plays as the protagonist in a game, as opposed to controlling a character who is intended to be someone other than oneself. It is true that while reading an especially compelling novel, one may imagine the world that the author portrays, and perhaps even imagine being in that world; however, because one is reading about specific characters and not oneself, it is not typical to imagine oneself as the protagonist, and rather, it is the story and narrative which keep the reader's interest. Many games follow the same type of formula, in which the player is placed inside the game, controlling a protagonist who has preset characteristics governed by the story. However, many games are now attempting to orient the player themselves as the protagonist, which only solidifies the perceived need for immersion and immediacy, despite their aforementioned fallacious natures. FPS interfaces exemplify the tendency to try to place interface elements in the game world. One particularly relevant example is found in the *Halo* series, where the interface is explained to the player as being what the protagonist sees through his futuristic helmet, thus visible to both player and protagonist, and thus existing in the virtual world rather than merely being overlaid atop of it. It is evident that as gaming and technology advances, the interface also transforms in the games which strive for immersion and realism.

Game designers who seek to immerse the player within the story or game world tend to design a specific style of interface that privileges immediacy and immersion. Since information essential to the game's playability must still be displayed, some kind of interface is still necessary in one manner or another. Therefore, game designers often resort to building these interface features into the game world under the pretense of being part of the reality that the avatar is seeing (as explored in the previous example from *Halo*) or hiding the interface unless absolutely necessary. Jorgensen calls these "borderline features." In first-person shooters, for example, the interface is often rationalized as a HUD (heads up display), part of the avatar's helmet, such as in the *Halo* series and, as Jørgensen finds, the game *Crysis:*

When interpreting borderline features in the first-person shooter Crysis, for instance, the respondents tend to explain them as part of the game world. This is connected to the first-person perspective and the fact that the game uses a minimalist UI partly explained by the game fiction as a technologically advanced feature implemented into the avatar's helmet. (Jørgensen 2012:154)

How an interface is presented raises the question of where the interface is placed in relation to the game-world and the player. Jørgensen found that the most common place for the interface to be positioned is between the screen and the game-world:

Looking at computer game interfaces more closely, we see that these techniques are realized in different ways. The common denominator is that they all position themselves in a dimension somewhere between the screen and the interior of the game world. Often, however, an interface feature may be part of the game world while communicating to the player on the outside, or vice versa. (Jørgensen 2012:146)

As Jørgensen states, interface features may become part of the game world when necessary, or may appear external to the game world. She gives a typology of different ways that interface elements can be built into the game world (Jørgensen 2012:147), which will be discussed later on in detail. These typologies are dictated by not only design choices and aesthetic, but as I will argue, also genre. There may also be some desire to relate interface elements to diegetic and non-diegetic features when discussing game worlds, as is done with other media, but Jørgensen states that this should be avoided:

It may be tempting to associate these elements with "diegetic" and "nondiegetic" features which describe the relative "interiority" and "exteriority" of features with respect to story worlds. However, I am trying to avoid this association in this article, as these terms do not grasp the functional and interactive aspects of the game interface and the game world (Collins, 2008, p. 180; Jørgensen, 2010, p. 81). Being developed for narrative media, diegetic and non-diegetic are also confusing when used in connection with games since they focus on the idea of a narrated story world instead of a playable game world (Jørgensen, 2010, p. 87; Klevjer, 2007, p. 46). (Jørgensen 2012:146)

I agree with Jørgensen in that interface elements should not be examined in relation to diegetic and non-diegetic features. This association ignores the fact that a game does not always fit the mould of a narrated story, and in the context of virtual world that also happens to be a game, does not make sense. Instead, I will explore interfaces in terms of complexity (or lack thereof) in relation to Jørgensen's typologies. This breakdown is necessary to understanding how and why power-gamers use the interface in order to hypermediate their experience, as opposed to immersing themselves.

Interface Transparency and Complexity

Complex interfaces are most often present in games where there is a great deal of customization available to the player, or where the game world is extremely complex. MMOs, RPGs, and RTS games usually fall into these categories. Gameplay within RPGs and MMOs relies on player control of an avatar, necessitating a complex interface due to the large amount of abilities available to the avatar in these styles of game. RTS games also utilize complex interfaces (typically as overlays), and gameplay is centralized around controlling "units" and the game world itself (building structures), as opposed to controlling an avatar. These styles of games rely on hybridizing the world, where the interface is not integrated into the reality of the game but rather is a separate entity through which the player views the game world. Jørgensen categorizes interface elements as either emphasized, integrated, or overlayed (Jørgensen 2012:147). These categories are not mutually exclusive, but rather descriptive of specific features, and can all be present within one game, especially if a game's interface is highly complex. Regardless, no matter how complex, the interface still needs to have transparency; it should not distort or distract the player's attention from the actual game world itself. The distinction, then, is that a complex interface does not fall victim to the fallacy of immersion. This is not to say that immersion does not matter, but rather that there are pitfalls which may occur when a game tries too hard, or goes too far, in its attempts to be immersive:

I think there's definitely a danger of worrying about immersion too much. I think the best interface doesn't draw attention to itself, but some of the worst interfaces are the ones who try to be too subtle, that try to be immersive at the expense of actual imparting information in an intuitive way. So I would always err on the side of, you know, if you need to get by the information to people, make it very clear. [Harmonix, respondent A] (Jørgensen 2012:149)

So although a discrete interface may appear to be the most ideal choice especially considering the high prevalence of technology in our everyday lives, in reality there is actually little need to strive for a truly "transparent" interface: after a certain threshold, the mere presence of an interface does not detract from the player's experience of the game (Jørgensen 2012:149).

The interface in WoW is highly prominent (Figure 2). Its specific elements include a "bar" (that is, a rectangular container which holds abilities that the avatar can perform) as well as a map, a "chat box" or a container for communication, a health "bar" or indicator, and an enemy health bar. Other various entities located in the world are often labelled as well, either with text or icons. The interfaces of RPG games, such as *Path of Exile* by Grinding Gear Games (Figure 3), share many characteristics with the interfaces found in MMOs like *WoW*. There are health indicators, a set of buttons used to control the avatar, a map, as well as representations of enemy health. Moreover, unlike an FPS or MMO, where players expect the freedom to look all around their avatars, the RPG's camera is fixed in an overhead position, focused on the player's avatar. Furthermore, there are different types of RPG games: *Path of Exile* is what is known as an ARPG (Action RPG), and its interface reflects this; other styles of RPGs like *Skyrim* by Bethesda utilize more minimalistic interface characteristics akin to an FPS, and allow the camera to be moved, similar to an MMO. RTS games share characteristics with both RPG and MMO interfaces. Like the RPG, RTS games are typically played from a fixed overhead camera position. However, there is no focus on one avatar; instead, the player controls multiple "units" within the environment, and the camera acts as the player's omniscient and moveable perspective over all of his or her units. The focus of an RTS is strategy: its stated goal is usually to create buildings and an army sizeable enough in order to engage and overtake another player in battle, and thus its interface facilitates this. In a game such as *StarCraft II* by Blizzard Entertainment (Figure 4), many of these elements are at work: a map is present, as well as buttons which control the selected units and their respective abilities (as opposed to the buttons in an MMO's interface, which

correspond to their specific avatar). Additionally, there are resource indicators (instead of player health) as well as enemy unit health indicators. In all of these examples, the emphasis is placed on the interface as a tool to control either an avatar or the environment, and thus the interface becomes more complex to facilitate this. The complexity of these styles of games, in terms of either customization or the world itself, lead to the need for a more complex interface. There is a notable shift in playstyle from simply exploring the world with one's avatar to also needing to understand the interface in order to progress through the game. This leads to what I will call "playing the interface," and it is integral to power-gaming not only in *WoW* but other games as well.



Figure 2. A screenshot depicting the standard WoW interface



Figure 3. A screenshot from Path of Exile depicting its interface



Figure 4. A screenshot of StarCraft II and its overlay-style interface

Playing the Interface

Games with complex interfaces result in the player "playing the interface" as opposed to playing the game; mastery of the interface itself is inherent to being a skilled player, and is a large barrier between power-gamers and more casual players. Though "playing the interface" does not necessarily make one a good player, the periphery of this requirement while also paying attention to the core gameplay is what separates a powergamer from others. While FPS games require a mastery of moving through the world, a space where the interface typically serves as an information delivery system, for games wherein the interface is more complex, the role that it plays is much larger, and mastery of that interface, including the ways in which it controls either the environment or the avatar, is integral to skilled play. Within the game of *Counter-Strike* by Valve Corporation, an FPS, Stuart Reeves et al. examined what constituted skilled play. Their results found that skilled play in *Counter-Strike* did not hinge on portions of the interface, and was more heavily influenced by how the player controlled the actual avatar within the world, which is not necessitated by utilizing the interface but rather directly controlling the avatar itself:

The crux of playing well is moving and managing one's own appearance and presence while playing. Movement in the environment is accomplished through manipulating the mouse and keyboard in concert. Manual dexterity is required to adequately control the avatar's actions within the virtual environment. (Reeves et al. 12:2009)

In addition to this movement, players must be able to accurately shoot a weapon at other players, and this accuracy is also central to playing well; the more accurate a player the better they will do in the game, especially when combined with skillful movement. In an MMO, however, the interface is used more extensively than it is in a game such as

Counter-Strike. The avatar's movement is primarily controlled via the "WASD" keys on a typical QWERTY-layout keyboard, as well as the mouse, just as you control your avatar in *Counter-Strike*. However, there is a second layer of control present within MMOs that is not found in *Counter-Strike* and other similar games, and that is the use of skills to which one's avatar has access. These skills are placed in a container, or a "bar," on the interface, and are used either when they are clicked or when the appropriate corresponding key is pressed on the player's keyboard. This means that not only do MMO players have to move through the virtual world with their avatar, but they must also control very specific abilities at the same time. The amount of abilities that a player must use varies by game: in *WoW*, my avatar has over 46 individually-mapped keybinds that I must remember and use to play efficiently. This results in a style of play that relies as much on the interface as it does on movement through the game world, but also one which does not require the same type of situational accuracy as an FPS game. Within *WoW*, skilled play is contingent on a number of factors, many of which are related directly or indirectly to the interface. While raiding with the guild Tyranny, it was essential to have an interface that facilitated "good play." Potential applicants for membership were critiqued on many independent factors, with the interface playing a central role in their evaluation. Located on the member application is a direct request for a "screenshot of your UI [user interface] in a raid setting." This is because in WoW as well as many other MMOs, the standard interface can be customized by the player via user-created modifications, or "addons," which alter the game's code in order to change the appearance and the function of the interface elements. The basic or stock interface which comes with *WoW* is shown in Figure 5. A potential member applying to the guild

with an interface such as the one shown in Figure 5 would be questioned, if not ridiculed, for its lack of modifications, as such a lack implies to players who do "play the interface" that this applicant most likely plays at a suboptimal level. As Taylor notes, addons and modifications to the interface are integral to a power-gamer's playstyle not only for their aesthetic customization, but also for their skill-enhancing changes to the interface:

WoW's user interface (UI) mods do not simply add polish to the interface but can radically reconfigure play. They can stand in and do work for us, monitoring our play, automating actions, providing key information, and in general facilitating a range of both mundane and complex action. (Taylor 2009:333-334).

Mods can affect gameplay in many different ways, and I used them frequently while raiding with Tyranny as well as outside of team-oriented power-gaming. Specifically, mods can tell a player when a boss will be doing specific abilities by giving visual timers, or notifying a player if something important is about to happen. There are mods to streamline the gathering of materials, for example a mod may show a player the most efficient route for mining ore in a specific area. Mods also allow players to move interface elements around the screen, in order to reduce clutter and customize the interface to their own personal playstyle. In general, mods allow a player to customize any number of different interface elements that will ultimately affect how they play the game.



Figure 5. An example of WoW's unmodified interface

Likewise, Nardi notes that playing a game skillfully is in the same vein as playing competitive sports, stating that "as in contemporary sports, performance in *WoW* was expressed in a series of publicly reported metrics. Performance was measured and displayed in tables and logs" (Nardi 2010:58). These "tables and logs" are an integral part of play for power-gamers in Tyranny. However, it is important to note that said tables and logs are also unreadable with only the default interface that the game comes with; instead, a player must modify (mod) their interface in order to review this type of information. For example, "damage meter" mods allow a player to see how much damage they are dealing or taking in relation to others in real-time. These modifications often facilitate greater competition among power-gamers: in the example of the damage meter, players will compete with each other in order to "top" them by doing the most damage in the group; without these mods, this type of competition would not be possible. There are

also more complex tools, such as boss (that is, a specific powerful enemy) encounter data-parsers, which alert players as to when an important part of the fight is coming up; such "boss mods" are not only expected tools in a power-gamer's kit, but are in most cases also mandatory. Raiding without a boss mod in Tyranny can be grounds for dismissal on its own, as it can lead to players missing important queues and "wiping" the raid (killing everybody, an understandably serious offense). Outside of the game world, log files are uploaded to data parsing sites such as *Warcraft Logs*, where incomprehensible data is parsed by a program in order to produce a graphical display of the information, from which in-depth analysis of player movements, damage output and input, and skill usage can be conducted (Figure 6). These log files are records of combat events stored by the game on the player's computer, and are functionally unreadable without the assistance of a program to make sense of the data. While more casual players and guilds may not know how to read or use a tool like this, power-gaming guilds such as Tyranny require a link to a *Warcraft Logs* parse to even be considered for entry. A more casual gamer may view the ability to read log files as an extraneous or exemplary skill, and may even ask power-gamers for assistance in analyzing their own logs, whereas power-gamers in a guild such as Tyranny are outright expected to be able to read them, typically at a highly fluent level. Such parses provide an impartial and accurate snapshot of events, allowing users to evaluate whether or not a candidate is performing to the highest threshold of their character, and informs the critique and dialogue integral to ascertaining whether an applicant would be a good fit for the team. However, the utility of this type of data parsing extends far beyond the mere evaluation of potential (and reevaluation of current) members; for example, it is also used while learning specific

encounters. Tyranny has a "strategy team" whose job it is to find the most efficient ways to do new encounters. Much of this strategizing is done by way of many hours spent examining log files on *Warcraft Logs* in order to see what other guilds have done for the same encounter, and to pinpoint problem areas within Tyranny's own strategies. Here, a guild member examines a fight that the team was struggling on, and is comparing numbered log files on *Warcraft Logs* to others in order to analyze what is happening and why the guild is failing:

Our best attempt looks like #3 [attempt 3 on Warcraft Logs] and we had about 9 mil more boss health to burn down. Which at our given rate is about 20 seconds longer we need to survive pushing the P6 [phase 6] duration just shy of 2 mins and more importantly we run out of room before that. It would be great to have everyone alive and all our combat rezs [resurrections] for that portion of the fight but as well all know first kills are relatively unclean so I think that the 15-20 seconds longer needed to survive is fairly accurate.



Figure 6. An example of a Warcraft Logs parse

Outside of log files, other interface aspects are important to skilled play as well. How a user chooses to set up their interface can have direct implications on how they play the game. In one example, an applicant is critiqued on the fact that he does not "bind" his keys past numbers 1 through 9 on the keyboard:

Looking at your screenshot of your UI, I'm a bit confused as to how you heal. I see that you have 1-9 + B3 keybound (ignoring the fact there's no way you're hitting 7/8/9 in a typical setting), but things like Ironbark, Nature's Swiftness. Tranq, Rebirth, Tree, Nature's Vigil, etc, are not. Do you primarily click your spells?

As this member's analysis indicates, the way in which the applicant's in-game user interface is set up suggests that the player is using his mouse to click the abilities, instead of using the keyboard. In high-level play, this "clicking" playstyle is considered amateur, and is indicative of a level of play which is less-than-optimal for this group. Examining the interface of players in *WoW* has other implications as well. If a player's interface is messy it can lead to not being able to see what is going on around them in the actual game world, which in turn can lead to excess damage being taken, or in extreme cases their avatar's death. One forum member commented on an application:

Your UI is cluttered, you have a bar going right over top of your main abilities. You have many abilities shown twice it looks like?

As implied by the member's analysis, the applicants interface suggests that the player cannot possibly see important information due to issues with their interface setup, and has redundant information cluttering their screen, implying a level of carelessness. There are many examples of this type of dialogue occurring between members of the guild and applicants. Similar to a perceived correlation between the cleanliness of one's personal spaces, and one's personality or productivity, there is often the assumption that if a player's interface is a mess, their play will likely be a mess as well. In this manner, players are judged by not only by their ability to play their interface, but also by their ability to customize it to appropriate standards. This type of customization requires knowledge beyond simply running the game. Players who use the "default UI" (the interface that is standard to the game, and unaltered) are often looked down upon in competitive play. The use of interface modifications in *WoW* turns power-gaming into more of a technical hobby than gaming is for the average player. Haring defines a technical hobby as one that "...must require some technical understanding or skill beyond simply how to operate a technology" (Haring 2007:2). In this regard then, power-gamers in *WoW* must not only know how to operate the game, but must also possess the ability to modify the interface.

The maximization of efficiency is not something individual players will necessarily do on their own; it is usually born of a desire to become more competitive, which is driven by others, or because of group surveillance. If a player is doing something incorrectly, it is difficult to avoid detection: mistakes are easily seen in Tyranny's log files, and more often than not another player will alert one of the guild's "officers" (a person which manages various aspects of running the guild) or the guild leader to any blunders which occur. It is generally accepted that if there is some way to eke out, or maximize, an avatar's performance - for example, a specific ability that a character can use, or a specific specialization (of which each character archetype has three) that is subjectively better suited to the situation than another - players are expected to use it, regardless of whether they actually prefer it. An example of this would be that on my warrior, I may want to use the ability "Avatar" because I think it fits my

character's lore, and makes me look good as I turn into a giant stone warrior. However, if I run the numbers through SimulationCraft (another data parsing tool) and the results show that my other talent, "Bloodbath," is actually far superior in almost all situations, I am expected to be using Bloodbath instead of Avatar even though I enjoy Avatar more. This is something an average player would not take the time to do, as to them the difference is seemingly insignificant, or they do not prefer the playstyle. This example happens constantly, and a player's response to it - choosing either to maximize pure subjective enjoyment or pure objective performance - is what separates power-gamers from others. Most players will play what is fun, whereas a power-gamer will play what performs maximally. Furthermore, in a power-gaming environment where high-level play is expected, this choice is scrutinized by the group as a whole, imitating Taylorist "scientific management": "Scientific management, so-called, is an attempt to apply the methods of science to the increasingly complex problems of the control of labor in rapidly growing capitalist enterprises" (Braverman 1974:59). While a guild might not qualify as a "capitalist enterprise," under most definitions (they do not typically generate revenue), guilds are often run in a similar fashion to a business or factory, where there are accepted ways to do specific tasks, and a supervisor makes sure that they are done in the most efficient manner possible. This turns the customization of the interface, as well as examining log files, into a social activity where players actively monitor themselves and others to ensure that they are playing properly. Furthermore, these practices show that power-gamers explore a space where play becomes similar to labour (playbour), so much so that power-gamer obsessions with finding and enforcing "the one best way" (Taylor's watchword) match perfectly with Taylorism.

Technical Culture in World of Warcraft

It could be assumed that because all players of games must access the game worlds via technology (either a computer or a console) that one could consider all gamers to share a technical culture. However, as Haring stated above, operating a technology is simply not enough on its own to qualify as being part of a technical culture; there must be a level of technical understanding associated with the usage. However, that being said, a game is designed to be played by the broadest amount of players possible. Therefore, the quality that sets power-gamers apart from regular players is the fact that they not only understand how to operate the game, but also understand the underlying technologies involved with operating the game, not only at the level of the software (the game program) but also the hardware itself (the machine or machines on which the game is run). Haring defines a "technical culture" as a "subset of cultural norms specific to technology" (Haring 2007:7). Power-gamers in *WoW* and other games adhere to norms that regular players do not, and in this manner power-gaming must be considered to have aspects of a technical culture, if not outright be considered as one itself.

An MMO like *WoW* does not have exceptionally high standards for system requirements, thus allowing the game to reach a broader audience. That is to say, many people can play the game, because Blizzard Entertainment allows the game to be played on a broad spectrum of hardware ranging from home computers to computers optimized for gaming. The technical culture to which an MMO power-gamer belongs serves to give the player a competitive edge over others who may not have machines of the same level and efficiency as his or her own. Power-gamers in Tyranny and other similar guilds are required to have a microphone for voice-based communication with other players, and to have a "Voice over IP" (VOIP) program like Skype, Mumble, or Ventrilo installed for this purpose. Because playing with up to 40 other people is processor intensive and can stress a system graphically, many power-gamers are also computer enthusiasts as well, building their own computers and tweaking them for performance. In the same way that power-gamers tailor their interfaces to their needs with modifications, they also modify their computers to create a system that suits these needs as well; the same goal drives both actions. Tyranny has a forum dedicated to hardware modification and help. If a member of the guild is having issues with their computer, they may use this forum to exchange ideas for possible solutions, or call to other members with more technical knowledge for assistance. There is also a great deal of pride associated with computer setups, and there is even a thread dedicated to posting pictures of individual setups, where members show off their machines and peripheral equipment with as much delight as car enthusiasts at a car show. Figure 7 shows a player's setup posted in this thread, complete with the guild's logo affixed on the wall. Power-gamers will not typically play on regular office and home computers; instead, they view their "rigs" (custom-made, high-end computer setups) as a source of pride, often choosing to custom-order individual parts from a third-party supplier. Unlike the pre-built machines most familiar to the average consumer, custom "rigs" arrive in individual parts, which must then be assembled, requiring specific technical knowledge as well as specialized tools. Simon notes that in order to even begin to play games on a PC, even a casual gamer must have knowledge that far exceeds that of a console gamer, or a regular user:

Gamers especially are called on to share some understanding of the functional relation of individual components, even if they need not understand how each component works. They must understand, for instance, the basic system requirements to run the game as well as some of the basic features of their video

cards. The basic degree of machine knowledge here far exceeds that of most other software applications, as casual perusal of the minimum requirements listed in small print on a game box will demonstrate. (Simon 2007:182)

To even begin to play games as a PC gamer one must have knowledge of the machine that a console player would not need; system specifications, and compatibilities must all be taken into account. Power-gamers in this regard, go far beyond the regular technical know-how necessary to game on a PC. In this sense, power-gamers are involved in more of a technical hobby than most gamers, and power-gaming in general can be seen as a technical culture.



Figure 7. A Tyranny member's computer setup

Most members of Tyranny have a custom gaming computer that they either built themselves, or one that a friend built for them. In the case that a member is not confident in building their own computer, other members have been known to assemble it for them and ship it across the country. In some cases, a power-gamer with less technical knowhow may opt to buy a specialty gaming computer from a vendor, however, this is not typically the case. There is significant risk inherent to building one's own machine, a fact which may intimidate some. One could, for example, bend the small connective pins on the CPU (central processing unit), resulting in the machine not working and breaking an expensive part in the process. There is also the risk of voiding the warranty of certain components, as some players like to "overclock" their hardware in order to make it run faster than intended: in cases where a player is uninformed or reckless in their approach, overclocking can result in a failed component with no options for reimbursement, as the warranty is now voided in the process. Nevertheless, computers assembled at home are less expensive than those bought pre-assembled, and often perform better overall, resulting in a risk versus reward scenario. Furthermore, players who choose to undertake a building project often discover that they are able to attain a better sense of control over the components, and brands that they may prefer. This affords the player more choice in the specifications of his final product, which in turn allows the game to run more optimally and can help increase performance experienced while actually playing the game. Additionally, gamers (both casual and power) often opt to buy peripherals specifically designed for gaming, such as specialty keyboards and mice. These specialty products often tout extra functionality designed to assist in playing games at a high level.

As one may assume based on this information, because this technical culture is associated with specialty products and ventures, it is also associated with an income that allows for the purchase of computer parts and peripherals, and thus the demographic of power-gamers can be narrowed down to privileged middle-class people who are interested in the technical aspects of computer hardware. In my experience, this demographic is most typically comprised of men, a sentiment which Nardi shares when she states that "the statistically modal player in *World of Warcraft* is a male in his twenties. But statistics do not reveal the nuances of the social atmosphere created by the presence of male and female, older and younger players" (Nardi 2010:19). Tyranny has an age requirement of 18, and thus the typical player in the guild is anywhere from 18-40, although the median age is mid-twenties. Although there are some women on the team at some points, in fact, over a quarter of the guild has been comprised of women historically in my experience power-gamers tend to be primarily male. Haring further supports this claim during a discussion concerning Ham Radio culture, stating that, "technical hobbies are in fact largely practiced by men…" (Haring 2007:4). She argues that this is because men are "socialized into technophiles," and that technology itself is masculinized (Haring 2007:4).

Both identity and material culture serve as analytical frameworks for the constant interplay between men and machines, a mutually defining relationship central to the amateur radio community. Associating with hobby machines allowed men to exist temporarily outside the roles of husband or father, as hams. Based on equipment requirements, hobbyists justified creating "shacks," personal, masculine territories. (Haring 2003:739)

These "personal, masculine territories" are still prevalent in relation to technology today, with rooms designed for gaming dubbed "man caves" or other similar gendered phrases. Masculinity is certainly intrinsically involved in regards to power-gamers and their propensity to tinker with and build their own computers, but it can also be extended to the much broader computer hardware enthusiasts who exist outside of gaming and power-gaming. Hardware sites such as *Tom's Hardware* and *NewEgg* have how-to videos which

are predominantly hosted by men. In cases where women are present, they are found to be doing product overviews, where videos of actual modification and installation of hardware is done by a man. Many user-created videos involving hardware modification hosted on *YouTube* also predominantly feature male hosts. This is not to say that women are uninterested in modifying their computers, but rather that in general the hobby and its surrounding culture is emphasized as male. As I will explore later, in this way, powergaming shares the same stereotypical conflation of technical identity and technical hobbies with masculinity as does skill. One might suggest a genealogy of the conflation of masculinity with technical identity and skill, one which begins in the world of labour proper, production, but then moves into the world of technical hobbies such as Ham Radio, and finally into gaming. Nancy Quam-Wickham argues that skill is inherently linked to masculinity in her discussion of masculine mythologies among extractive industry workers of the American West in *Rereading Man's Conquest of Nature* (1999):

Skill was the critical element in this process through which workers asserted their masculinity...As a social concept, skill served as the most important component of worker's culture in the West's dark mining shafts, damp forests of redwood and Douglas fir, and dusty oil fields, and it contributed to workers' ideas about manhood and class pride. (Quam-Wickham 1999:136)

Meanwhile, Ruth Oldenziel also examines a specific case (the Fisher Body Craftsman's Guild) in which technical hobbies became a site for the gendered elaboration of a masculine technical domain within the world of leisure and hobbies:

The most substantial part focuses in detail on the male gendered codes in the Fisher Body Craftsman's Guild and its miniature world of model cars to show how from the 1930s to the 1960s the guild helped socialize Fisher boys as technophiles and sought to groom them as technical men ready to take their places as managers or engineers in GM's corporate world. If the first guild advertisement points to the making of a corporate male identity, the second ad suggests, as the Fisher Body Company explained, that the making of the "technical," "hard," and

"male" coded world of production has also been produced by and produced its opposite: a world of consumption coded as nontechnical, soft, and female. (Oldenziel 1997:65)

While boys were encouraged to explore technology, and hone their skill, which was inherent to masculinity, and related to the masculine world of "production," girls were relegated to a more passive role as consumers.

There are similar parallels in power-gaming, where a "worker" - in this case a raider - measures their worth in the game-world by their performance, which is in turn measured via the log analysis and other aforementioned tools. While there are and have been many women in Tyranny who are certainly as competitive as the men in their roles, women often drift toward the healing roles that the game offers, while men gravitate roughly as often to the "DPS" (damage dealing) roles. Healing revolves around the task of keeping everyone alive as opposed to doing as much damage as possible, and while there are certainly women who DPS and men who heal, it seems that men gravitate towards the role that puts them in direct competition with other players on the damage meters, where women opt to be more passive in a healing (supportive) role, even in competitive play. Beyond this, the DPS role is active, whereas the healing role is reactive, which can be construed as another take on passivity. Having high damage as a raider is the same as being highly skilled at a trade, and the conclusion can be drawn that the higher the damage numbers that are done, the more skilled one is, and thus the more masculine. However, while there are also healing ranks, these are highly contingent on the class that the player is playing, and in general the rank has no indication of how well a healer is doing their assigned jobs. Healers are still very competitive amongst each other, but there does not seem to be the air of publically showing-off when one "tops the

healing meter," whereas DPS often brag about "topping" the damage meter, which in itself can be viewed as a show of masculinity. It also often rare to see a woman in a tanking role; whether this is due to other players' sexism toward a woman in a position of leadership, or whether it is just due to a male preference toward powerful positions I cannot say with certainty, but nevertheless it has, in my experience, been extremely rare to find a woman in this niche role, and in my ten years of playing the game I have met only three women who preferred a tanking role over something else. However, this is not to imply that all technical cultures are masculine: as can be seen in Claude Fischer's study of the domestic telephone, Gender and the Residential Telephone, 1890-1940: *Technologies of Sociability*, telephone use in the home is predominantly occupied by women and girls (Fischer 1988:2). Nor is this discussion to imply that women do not participate in skilled play in *WoW* at a competitive level, because simply put, they do. However, conclusions can be drawn that power-gaming, as well as computer culture in general, are predicated upon masculinity, and that female power-gamers, willingly, or not, are placed into roles which are viewed as less competitive and less indicative of masculinity than male power-gamers.

The modification of the interface in *WoW*, as stated previously, is a very large aspect of technical culture in power-gaming. While some power-gamers may not be as involved in the hardware modifications as others, almost all power-gamers have modified their interface in some way or another. Most players in general utilize some sort of mod at some point in their gaming career, however power-gamers make a point of modifying their interfaces as discussed prior at length. Figure 8 depicts an unmodified *WoW* interface, while Figure 9 depicts a heavily modified interface, in order to highlight the difference between the two states. Some power-gaming guilds even design mods for themselves or have mods designed especially for their own use in order to gain a competitive advantage, and then release them to the public later when that advantage deteriorates to the point it is no longer relevant, and they no longer need to keep them private. Through practices like these, power-gamers in this sense are resorting to what Bolter and Grusin dub "hypermediacy" in order to heighten their play within the game world.

Where immediacy suggests a unified visual space, contemporary hypermediacy offers a heterogenous space, in which representation is conceived of not as a window on to the world, but rather as "windowed" itself – with windows that open on to other representations or other media. The logic of hypermediacy multiplies the signs of mediation and in this way tries to reproduce the rich sensorium of human experience. (Bolter and Grusin 2000:34)



Figure 8. An unmodified interface



Figure 9. A heavily modified interface

Modifying the interface to be far more complex allows for vastly more information to be visible to the player, and furthermore in some cases displays information which otherwise would not have been visible at all without modification. While the default interface of *WoW* was never intended to be super-immersive or to allow immediacy, it nevertheless does not display even a fraction of the information a powergamer wishes to see while playing the game. By modifying the interface in this manner, a power-gamer not only enhances his or her play, but also hypermediates their interaction with the game world to a degree that a more casual player would never consider. In this way the power-gamer desires almost the opposite of immersion or immediacy; that is to say, the power-gamer desires hypermediacy. Where the illusion of immediacy simply hides information, the ultimate goal of a power-gamer is to understand the underlying mechanics of the game, and furthermore, to unpack them. Therefore, where a minimalistic interface is incompatible with this style of play, a hypermediated and modified interface is capable of providing the power-gamer with the highly-specialized information he or she desires, at the cost of immersion. Of course, while there are minimalistic interfaces within *WoW* that strive for immersion, or a balance between information and aesthetics, such interfaces would be effectively non-functional in the raid settings that I found myself in to the degree which is demanded by said settings, as there would be no way to react to boss fight mechanics without the ability to see when they were coming, and no way to maximize my level of play without the necessary information shown.

The technical culture that surrounds power-gaming in WoW is, above all, multifaceted and variant. The genre itself dictates certain practices, such as interface modification, which are not typically found in other genres where interfaces are unmodifiable. However, in general, power-gamers in *WoW* showcase characteristics which encourage the development of increasingly more streamlined and efficient play. From hardware modification to interface modification, power-gamers must possess a level of technical know-how that many casual gamers do not often desire or feel compelled to acquire. While these characteristics of technical culture are not limited to power-gaming, it is the motivations behind the acquisition and application of the knowledge which separates power-gamers from casual gamers: these high-level players apply these modifications to be more efficient and to streamline their play, whereas casual players may only modify their interface for aesthetics, and may not care if their game does not perform to the best of its ability on their hardware.

Technical Culture in Other Genres

Power-gamers who play first-person shooters - specifically *Quake* and *Counter-Strike* on the PC - are more similar to RTS players when comparing technical identity, mindset, and observance of skill than they are to MMO players. FPS power-gamers often have gaming computers, much the same as power-gamers in *WoW*; however, peripherals play a much larger role in these games. In both RTS and FPS games, mouse DPI (dots per inch) are constantly tweaked and adjusted to suit the needs of the player. Furthermore, players of the RTS game *StarCraft* have been known to alter both their mouse and keyboards in order to lessen weight and to reduce the chance of hitting keys by accident. Figure 10 shows a picture of a professional *StarCraft: Brood War* player's keyboard, with keys missing to ensure he does not accidentally hit them. The keyboard is

obviously ill-suited to anything aside from playing the game, as even simple tasks like typing a proper correspondence would be impossible.



Figure 10. Player SlayerS_BoxeR's keyboard for StarCraft

Counter-Strike power-gamers also go to great lengths to ensure accuracy. While most gamers (and in fact, most casual computer users) vastly prefer the latest and sleekest high-resolution monitors like Liquid Crystal (LCD), organic light-emitting diode (OLED), and plasma displays, cutthroat *Counter-Strike* players still typically consider the older Cathode Ray Tube (CRT) style monitors to be the best display to maintain a competitive edge. Despite the fact that such monitors are largely considered to be obsolete by the majority of the tech world, it nevertheless remains true that the higher refresh rate and pixel distribution offered by CRT monitors provide better accuracy for such competitive games when coupled with a suitable mouse. In fact, this is true to such a degree that many power-gaming forums even recommend attempting to imitate the specifications of a traditional CRT monitor, if one simply must purchase an LCD-style monitor instead:

CRT monitors have traditionally been recommended as the best gaming monitors due to their higher response times. I would say that an LCD with a response rate of 2ms (milliseconds) is the minimum with a refreshrate of 75hz at the resolution you play CS [*Counter-Strike*] in for good gaming. LCD monitors with the specs stated above can be a good alternative if you want an LCD monitor right now. Also look out for the 1ms LCD monitors. (WorldOfPwnage 2012)

Much like the keyboard example in *StarCraft*, a casual gamer or computer-user would almost certainly never prefer a CRT-style monitor, but for the power-gamer, the possibility of even the slightest competitive advantage far outweighs the costs of using an otherwise largely impractical set-up. While competitive gamers are often considered to be synonymous with the newest, flashiest technology, such an image of power-gaming fails to take into account the ways in which the needs of competitive power-gamers are often very different from those of the average consumer.

Skilled play in FPS games like *Counter-Strike* and *Quake* generally consists of exact accuracy, overwhelming map control, cohesive team work, and, of course, frags (kills). While even the most casual of gamers consider these indicators to be obvious, many underestimate the degree to which physical and technical aspects (like the mouse and keyboard) influence – and are influenced by – player skill in return. Reeves et al. found that the mouse and keyboard facilitated skilled play, as they were integral to moving through the game world:

For a typical configuration of CS, the mouse enables the player to direct their viewpoint and the trajectory of their motion as well as enabling weapon firing, weapon swapping (e.g., between a grenade and a handgun), and secondary weapon functions such as a scope or semiautomatic/fully-automatic modes. The keyboard in turn enables the player to grossly direct their movement forward,

backward, or sidestepping as well as providing weapon reload, duck and weapon drop keys (to name a few). (Reeves et al. 2009:10)

While technical culture in FPS and RTS genres lacks the interface customization of MMOs, there is still a marked requirement of technological understanding integral to their mastery. Additionally, power-gamers in RTS and FPS games must understand how to modify mouse software (either using special programs or using specialty hardware) in order to alter the sensitivity of the mouse, and how to remap the keys of their keyboard. In conjunction with the shared technical culture of modifying hardware, power-gamers of FPS and RTS games are also involved within a culture of modifying peripherals instead of interfaces. This key difference showcases how different games are played, and where the importance lies: in games where movement of an avatar is the most important aspect, modification of the tools that facilitate this are emphasized, whereas in a game where the interface is arguably more important than movement, the interface is modified. In both cases, the computer hardware itself is modified, as the machine facilitates access to the game world no matter what genre the game. In this way, it is evident that power-gamers across genre are involved in technical cultures that aim to streamline performance and increase their members' skill at the games they choose to play.

Conclusions

Video games are fundamentally different from traditional text and image based media. While the mediation of games through an interface and the computer is a core element necessary to playing them in general, in power-gaming such mediation also becomes a useful tool in heightening skill and changing the fundamental game experience. Interfaces in gaming are an integral part of the experience, and in cases where the interface can be modified, this fact is exploited by power-gamers. The ability to modify the interface, and the culture that surrounds modding and technical hobbies, has enhanced how power-gamers play games, and has created communities of like-minded individuals. This practice spans across game genres and has itself become a mainstay in discussions of hardcore gamers everywhere.
CHAPTER THREE: GLOBAL DIVERSITY IN POWER-GAMING PLAYSTYLE AND SOCIABILITY

As one might expect, the way that games are played varies widely across game and genre. However, these differences are not solely relegated to the virtual, but also the differing geographical areas from which a player hails. This chapter will explore how players from different cultural backgrounds play games, with special attention as to why and how power-gamers in various geographical locations play games of various genres. There are two ways to examine how games are played in this way, by style and by motivation, both of which are informed by culture (which encompasses the general cultural background – e.g. internet culture – as well) and by gaming genre. Motivation will refer to how players of different backgrounds approach playing – "why" they powergame – while style will simply focus on style related to the type of game – "how" they power-game in different genres of games.

In order to explore these elements, I will start by examining how gameplay differs between genres by studying specific games of differing genres. This will be a direct extension of my earlier discussion concerning interface-influenced gameplay, as the interface delineates how a game may be played. Here I will examine specifically which factors in each genre studied pertain to power-gaming. The genres that I will be concerned with primarily will be RTS, MMO, RPG, and FPS. MOBAs such as *League of Legends* combine styles of play, and, while such combination games are certainly interesting, it is necessary to first define the elements present in the respective "pure" genres of games before discussing hybridity of them. Within each discussion of genre, variations in the motivations of players in different regions will be explored. Genre in media other than games (books, television, etc.) typically describe the universe being represented within (science fiction, horror, etc.). These titles all generate certain expectations about what will be encountered throughout the storytelling: certain stylistic writing or visual styles dependent on the genre, which are adhered to and shared by authors of the genre; in other words, the titles of traditional media genres tend to be descriptive of a common content inclusive to the genre in question. Henry Jenkins writes about a distinction between world-building and spatial storytelling wherein game designers must build unique spaces in which their stories take place, but at the same time they will often borrow from traditional literary or filmic genres to enhance this "worldmaking":

When game designers draw story elements from existing film or literary genres, they are most apt to tap those genres - fantasy, adventure, science fiction, horror, war - which are most invested in worldmaking and spatial storytelling. Games, in turn, may more fully realize the spatiality of these stories, giving a much more immersive and compelling representation of their narrative worlds. (Jenkins 2004:5)

These representations give way to a shift in how players label and perceive games, as the way in which the story is told has specific influences on how the game must be played (fixed camera angles, types of story, character building, etc.). So while a game may be labeled, in the traditional sense of genre, as a horror game, the actual genre of the game is dependent on how the player plays through the narrative: first-person versus third-person, MMO versus RPG, so on and so forth. In games, the genre, as discussed in this chapter, does not refer to the kind of world (science fiction, horror, etc.) in which the narrative is situated; rather, it refers to the style of the game design (FPS, RTS, MMO, RPG, etc.). While storytelling genres are used often to describe the style of narrative or world found

within a game, power-gaming is not distinctly influenced by content. Instead, powergamer play-style and habits change with regards to the direct style of game, which will be referred to as the game's genre throughout this chapter.

Gold Farming and "Playbour"

One of the strongest stereotypes held about the relationship of culture and game motivation, or in-game behavior in general, is the widely held stereotype that all Chinese players, specifically in MMOs, are "gold farmers." That is, as the stereotype goes, that while North American players play the game for the "proper" motivations (i.e. for "play," whether it be sociable play in the manner of a casual player or competitive play in the manner of a power-gamer) Chinese players play for the "wrong" reasons – or, even worse, that they aren't even "playing" at all, but rather working, toiling away in what are often imagined as slave-labor camps, to emphasize what must be the complete joylessness of this behavior. It is stereotypes and generalizations like these which remind us of how necessary it is to consider just what motivates players to play, and to understand that although different players may play for different reasons, they will still enjoy playing as much as someone else who may play a different way. Mizuko Ito et al. discuss "highly invested" players, who "organize and mobilize" within games - not necessarily power-gamers, but players who identify as hobbyists (Ito et al. 2010:214). However, the reasons a player not only plays the game, but derives joy or fun from it, are not always clear, and as Ito et al. state, often straddle a line that can cross into a profession: "For the most dedicated players, competitive gaming might represent an evolution of recreational gaming, or they may engage in both genres of gaming. In a few cases, the passion for gaming can evolve into a profession" (Ito et al. 2010:214). Chinese

players often play in ways which look like work to Western gamers; however, in reality this is just another way to play the game that also happens to look like work or labour – "playbour." The stereotype of the "Chinese gold farmer" and the half-joking belief that all Chinese players play *WoW* from a slave-labour camp are indicative of a greater misunderstanding of the varied ways in which players derive enjoyment from games, and that the way Western players play games is not necessarily the norm everywhere.

Before exploring how Chinese players actually play *WoW* and other games, it is first important to understand exactly from where the stereotypes first stemmed. Take the example of the "Chinese gold farmer." In his article *The Life of the Chinese Gold Farmer* (New York Times 2007), Julian Dibbell explores the practice of Chinese gold farming through his correspondence with and observation of one such worker. Dibbell paints readers a picture of an industry made possible by "playing" a game (*WoW*) as labour:

At his workstation in a small, fluorescent-lighted office space in Nanjing, China, Li Qiwen sat shirtless and chain-smoking, gazing purposefully at the online computer game in front of him. The screen showed a lightly wooded mountain terrain, studded with castle ruins and grazing deer, in which warrior monks milled about. Li, or rather his staff-wielding wizard character, had been slaying the enemy monks since 8 p.m., mouse-clicking on one corpse after another, each time gathering a few dozen virtual coins — and maybe a magic weapon or two — into an increasingly laden backpack. Twelve hours a night, seven nights a week, with only two or three nights off per month, this is what Li does — for a living. (Dibbell 2007).

This is what is known as "gold farming," and associating Chinese players with this practice is not unfounded; indeed the term "Chinese gold famer" has become synonymous for any type of spammer in-game who advertises the selling of gold (ingame currency) for real-world money. "Farming gold," then, refers to doing repetitive activities over and over in order to gain currency within the game; however, this currency is not farmed for the benefit of the player doing these activities (in this case, the "Chinese gold farmer") but rather farmed with the express purpose of selling this virtual currency for real-world money, and in doing so generating a profit which ultimately goes to the overseer, not the exploited labourer. Unfortunately, while this is not the way that all Chinese players "play" *WoW*, the stereotype of Asian gamers playing games like jobs instead of leisure has proliferated. So, first of all, one cannot approach the question of culture and motivation without first understanding how one specific genre of game, *WoW*, a kind of MMO, elicits a certain kind of motivation that could lead to goldfarming, or "playbour."

Gold farming as a practice in *WoW* has been around since the game's release in 2004. Gold is the primary currency within *WoW*, and is used both directly and indirectly to repair and buy equipment, mounts, toys, pets, materials, and almost anything else a player could desire. Gold, much like currency in our real world, allows a player's avatar upwards mobility in the game. The more gold one has means the better equipment one can afford, thus attaining a higher status as a citizen of Azeroth. While earning gold is not considered to be difficult – a quick internet search reveals thousands of guides, videos, tips, and tricks on how to make gold in the video game – the trade-off for earning the currency is time: through the completion of various tasks, one can trade their time to earn gold. This results in players often resorting to buying gold with real world currency in order to avoid having to do "work-like" activities within their leisure time. Although it is against the rules to buy gold with real money, players do so nevertheless, and furthermore, its illicit nature means that players seeking gold must often resort to paying what are commonly called "Chinese gold farmers" to obtain it. Nardi notes that "in North

America, if one says 'China' and '*World of Warcraft*' in the same sentence, the immediate free association is typically 'Chinese gold farmer'" (Nardi 2010:176).

Despite its connections to *WoW*, the notion of the Chinese gold farmer is one that existed long before *WoW*, in MMOs prior, and has been a persistent theme in virtual worlds continually. The facts, however, are quite different: while it should go without saying that Chinese players are obviously not playing the game simply to farm currency, it might be more surprising to learn that they are, in fact, the single largest nationality of players of *WoW* claiming over 50% of all players worldwide (Nardi 2010:176, WoWWiki 2015). Furthermore, Nardi discusses how even at the time of writing her ethnography, Chinese players often had ways of making gold that North American players still had yet to discover. While North American players were stuck with the notion that all Chinese players were simply gold-farming slaves, players in China were not only finding interesting ways to generate currency (without resorting to the illicit methods Dibbell outlines in his article) but also playing in ways that players on the North American servers would not discover for several years (Nardi 2010:178). Furthermore, players in China found that they could spend their time finding ways to make in-game currency, which they could then turn around and spend on items - or even, they realized, on content. It is important to note that there is a distinction here between farming gold as an act of leisure, and a "gold farmer" who does so as labour for someone else; the Chinese players being discussed here were farming gold in order to partake in leisure activities. Activities such as "gold raids" (Nardi 2010:178) became popular, where rich players would pay more traditionally "powerful" players to do the work of clearing content for them, trading gold in return for the equipment that was obtained, and

completing dungeons which were in many cases far above their character's skill level (Nardi 2010:177). Meanwhile, the norm on North American servers at the time was to spend the vast majority of players' time on the "item hunt," attempting to repetitively kill monsters in dungeons ("farming" the dungeon) to get better equipment directly. In this way, the two groups of players spent time "farming" different means to a common goal, but whereas hunting for items was more direct, it often required a greater commitment of time, unlike "gold raids" which "allowed players with sufficient gold to acquire items they wanted without having to be lucky or raid a lot" (Nardi 2010:177). This type of play, as opposed to the stereotype of Chinese players as unskilled sweatshop labourers, is one that would be considered skilled, as this is not only an advanced sort of currency exchange (gold for equipment instead of time and luck), but also required advanced player skill via the creation and utilization of macros and farming mods in order to make the gold. While power-gamers that played in this way were criticized by others at the time for turning the game into a joyless, work-like grind, it remains that to the players in question these sorts of activities were more fun than other ways of playing.

Today, this type of power-gaming is much more common in North America than it once was; however, the notion that all Chinese players are just "gold spammers" or "gold farmers" persists. The North American (and European) stereotype of Chinese players is not one that reflects the reality of the actual players of the game. This stereotype is instead based on gold sellers like the one Dibbell wrote about, but this type of "player" (more like worker) is not the norm in China, or other Asian countries. Gold farming and selling in the manner Dibbell describes is a job that the labourers do to enrich someone else, not themselves, and must not be confused with how Chinese players actually play the game as a leisure activity. In Dibbell's interviews, the gold-farming worker states that he has "this idea in mind that regular players should understand that people do different things in the game . . . They are playing. And we are making a living" (Dibbell 2007). Chinese players are not trapped in a sweatshop, labouring for an overseer to make real-world currency; instead, you'll most likely find a typical player in China sitting in a *wang ba*, chatting with fellow players and friends. In fact, as Dibbell states, many of the gold farming sweatshop workers actually play the game for fun in their off-time: "But the rest had chosen, to a man, to log into their personal World of Warcraft accounts and spend these precious free hours right back where they had spent every other hour of the day: in Azeroth" (Dibbell 2007). This observation indicates that to these Chinese workers, gold farming as a job is quite different from farming gold for "gold raids" (and, indeed, from playing the game in general): one produces fun, the other is distinctly labour.

The widely-held stereotype that all Chinese players are gold-farming labourers, then, tells us less about the reality of Chinese players, and more about how North American players see themselves, and Chinese people as a whole, in a world political economic imaginary. While playing the game in the West, there is the distinct feeling that North American (and European) players believe that Asian gamers play the game too differently, reduced to mindlessly farming and "grinding" items. The implication here is that the Western way of playing MMOs is the "correct" way, and the way that Chinese (and other Asians) play MMOs is the "wrong, un-fun" way, and should be labeled as work. However, the irony in this stereotype is that Nardi found that there were many similarities between Chinese and North American players, in what she calls her "biggest finding" (Nardi 2010:179). This inherent disposition of Western gamers to believe that they play the game so much differently than Asian players is deeply rooted in racism, as well as blanket stereotyping, stemming from an inherent lack of exposure to any styles of Chinese players outside of the classic "gold spammer" (who isn't really a player at all, but a worker):

My biggest finding in China was that, overall, Chinese players were remarkably like the North American players I studied. They liked the sociability of *WoW*, the competitive challenge, the graphics, the color. They extended the game through the use of mods. They played with friends and family. (Nardi 2010:179)

Nardi underscores what so many Western players refused or were unable to understand: unlike the stereotypical gold farmer that someone on any given North American or European server would envision while playing the game, Chinese players were actually playing for many of the same reasons as North American players. Although, to be clear, that this is not to say that the ways that they play are identical. Nardi and Yong Ming Kow also address how North American and European players see themselves in relation to players in a country like China:

The Third World inflection of accounts of gold farming — stretched across multiple media in small bite size pieces — reinforces a notion that those of us in the "developed" nations of North America and Europe continue to constitute the high–tech, high–culture world. This world evinces order and cleanliness, and is characterized by advanced technical and economic infrastructures. This world, however, is not secure; it is threatened by grinding Chinese. (Nardi and Kow 2010)

In general, the activity of gold farming is not looked upon as "savvy, sophisticated, technically advanced, complex, or progressive," and is viewed instead as something to be reviled, or at the very least sympathized with (Nardi and Kow 2010). The result of this stereotype is that all Chinese players are viewed with the same sort of derisiveness that would be attributed to a third-world telemarketer, or a street beggar, even though the actual Chinese player's reality is much more complex and similar to Western notions of play. Much like the telemarketer or street beggar, gold spammers also invade the "personal" space of playing the game, which is typically a private leisure activity in North America, by initiating unwanted, and often disruptive conversation. The reality of the situation is that Chinese players are often also using technically advanced methods of play – including bots, addons/modifications, or any other myriad of tools – to assist them. However, due to the pervasiveness of the stereotype of the gold farmer, Chinese players are more likely to be viewed as unskilled labourers, lacking any semblance of technical know-how, skill, or an overall technical identity, another mindless worker in a sea of faceless farmers, rather than a complex individual player.

As one can see, the distinction between work and play is already a grey area, largely dependent on location and culture of both the participants as well as the observers. This distinction becomes even more blurred, however, when power-gaming is taken into account. In both Western and Asian countries, there is the notion that playing games in general is unproductive (a waste of time), and is akin to, if not worse than, other leisure activities such as watching television. Talking to Tyranny's Guild Master, one may that think they were talking to someone running a medium-sized company, not a guild within a game world. There are spreadsheets, serious meetings, and heated discussions that take place outside of the game, and to any casual observer this would seem very much like a job. However, this type of "productive leisure," as Celia Pearce (2006) would term it, is essential to players of games, and especially to power-gamers: "we need only look at the history of hobby culture in the United States and elsewhere to see that for many, productive leisure is a welcome escape from the regimen of being productive at someone else's behest" (Pearce 2006:19). So while Chinese gold-labourers are actually working (in the traditional sense of the word) Chinese players and their style of "grinding" out items should not be viewed as work, but rather as a productive type of leisure that they themselves distinctly separate from a job. While the stereotype of the Chinese gold farmer really should be dropped entirely, the larger issue that should be addressed is the predisposition to games as unproductive activities in general.

As more and more players engage in productive activity in and around play, we may want to question the assumption that games and play are unproductive. These trends show that play has its own productive character, which can also be seen as a form of cultural production and perhaps could be defined as a form of folk art. (Pearce 2006:23)

Productive play is evident in both Western and Asian styles of play; however, the ways these players choose to participate in productive play is extremely variable.

On and Offline Sociability

Sociability in gaming is one of the most salient and important features for casual players and power-gamers alike, albeit for slightly different reasons. MMOs such as *WoW* are built around sociability as part of the game itself, whereas playing with others seems discouraged, or simply tacked on as an additional mode, in a single-player game. Georg Simmel states that sociability, or "association," provides a form of satisfaction simply because of said sociability as "above and beyond their special content, all these association are accompanied by a feeling for, by a satisfaction in the very fact that one is associated with others and that the solitariness of the individual is resolved into togetherness, a union with others" (Simmel 1949:254-255). It is interesting to note that gamers in Europe and North America quite often choose to play games solitarily in the

physical world; thus, for Western players, sociability comes from within the virtual worlds of games instead. This is a stark contrast to how gamers in Asian countries, such as China and Korea, choose to play, where real world sociability is as much a part of gaming as online sociability.

In general, gaming in Western countries – specifically North America and Europe - is seen as a personal activity, done from the comfort of one's own home, and as such, gaming belongs to a domestic world of privacy and leisure. I conducted an informal poll (Figure 11) of gamers on a popular Western *WoW* fansite, MMO-Champion, where players showed a preference for playing within the bedroom as opposed to elsewhere in the house. A more formal poll of Tyranny members showed a similar trend. These results not only show that there are different preferences for where Western gamers play games, but also that there are differences in the way spatial oppositions are perceived by the West versus the East, as well as perceptions of what is done in the private versus the public. Susan Gal makes the distinction of the house as the private while the street is the public in A Semiotics of the Public/Private Distinction, stating that "a familiar, everyday example of how this works is the common conceptualization of American, bourgeois domestic space. At a first look, the privacy of the house itself contrasts with the public character of the street around it" (Gal 2002:82). This can also extend to the inside of the house, and rooms can be divided into private and public areas:

If we focus, however, on the inside of the house, then the living room becomes the public, that is, the public part of a domestic private space. Thus the public/private distinction is reapplied and now divides into public and private what was, from another perspective, entirely "private" space. But even the relatively public living room can be recalibrated—using this same distinction—by momentary gestures or utterances, voicings that are iconic of privacy and thus create less institutionalized and more spontaneous spatial divisions during interaction. (Gal 2002:82)



Figure 11. MMO-Champion poll

The public/private distinction is recursive in the sense that it applies to its own output, so the opposition between private (leisure) versus public (work) creates distinctions not only in residential areas, but also in rooms in the house. Public rooms are rooms that strangers can enter, whereas the bedroom is off-limits. The bedroom is also commonly seen as one of the only rooms within which people may have (and may expect) privacy. This marks the bedroom as a significant space as it is associated with privacy, relaxation, rest, and leisure; a space away from others. The fact that Western gamers choose to play games in the bedroom shows that the mindset surrounding games and the playing of them is one of privacy and leisure, using the game itself as a third space, as well as the primary form of sociability while playing. While informal, the MMO-Champion poll provided interesting insight into why players chose to play in the bedroom, regardless of whether they lived in Asia or the West. A few members posted responses to the poll stating where they played and why. In general the responses justified why they play where they do, with most responses leaning towards the bedroom.

AngelsDeath: *My computer is in my bedroom. I can't imagine playing any other way.*

Capt Bob: I have my computer in my bedroom. But right now i am sharing a 2room apartment with my brother, i have no "choice". I would probably still have the computer in the bedroom.

Keristraza: Heh, in my room. So I can get up in the morning and jump right on!

Some players also played in home offices or the living room, but the overwhelming trend

was to play in the bedroom. Constance A. Steinkuehler and Dmitri Williams describe

MMOs as similar in form of sociability to pubs, and coffee shops:

In what ways might MMOs function as new third places for informal sociability? By providing spaces for social interaction and relationships beyond the workplace (or school) and home, such virtual environments have the potential to function as new (albeit digitally mediated) third places similar to pubs, coffee shops, and other hangouts. (Steinkuehler and Williams 2006:889)

Furthermore, Ito et al. speak broadly of gaming practices as a way to "hang out" and

"spend time together socially":

The hanging out genre of participation happens when people engage with gaming in the process of spending time together socially. It is largely a form of friendship-driven sociability; while gaming is certainly important, it is not the central focus. Video games are part of the common pool, or repertoire, of games and activities that kids and adults can engage in while enjoying time together socially. (Ito et al. 2010:206)

Some gamers have likened *WoW* to "a glorified chat box," speaking to the game's importance as a primary form of sociability for players of the game; for some, the sociability is the main reason that they play. That being said, Ito's comment that gaming "is not the central focus" would not necessarily hold true for a group of power-gamers, even if they are also participating in a form of third place sociability. However, Ito et al. also discuss power-gaming in what they refer to as "organizing and mobilizing":

Gamers who are highly invested in their play will often become involved in more structured kinds of social arrangements, such as guilds, teams, clans, clubs, and

organized social groups that revolve specifically around gaming. We refer to this as "organizing and mobilizing" practices in which the social dimensions of gaming become more formalized and structured and more identified with geeking out than with messing around. (Ito et al. 2010:214)

This is exactly the case in Tyranny, where members of the guild and the sociability inherent to membership is not separate from the game, but revolves around the game instead. The key difference being, however, that instead of *WoW* acting as a "glorified chat box," the game serves as a way to power-game as part of an organized group, and through this organization comes inherent and necessary socialization. Aksel Tjora and Graham Scambler take issue with the terminology "virtual" when referring to online third spaces:

Owing to the remarkable advances in electronic communication, it has become fashionable for many to argue in behalf of "virtual" third places, which one can engage while sitting at his or her computer. That notion, however, abuses the word "virtual," which means that one thing is the same as another in both essence and effect. As Christopher Lasch observed, the difference between face-to-face versus electronic communication is that between participating and being a spectator (Lasch, 1995). One must also consider how "virtual third places" differ from real ones in terms of their formation. (Tjora and Scambler 2013:9)

While I agree that the terminology "virtual" in reference to an online space is problematic, we must take it as a colloquial term and not as a direct definition of the word. Likewise, Lasch's argument that electronic communication is akin to spectating is also problematic; just because conversation is mediated in some way does not mean that the content of the conversation loses meaning, it is required to abide by the rules of the medium. While it may be hard, for example, to explain that you are being sarcastic in a text based forum, there are rules that can be followed to imply that you are; for example, "/s" signifies on many online forums the use of sarcasm, because tonal indications are not present. Meanwhile, spectating and participating in the case of an online conversation in a virtual world such as Azeroth have the same implications as in real life. Since there are multiple channels of communication ("say," "yell," "whisper," "guild chat," etc.) a player can very much control who "spectates" or overhears his or her various conversations, and who is actively involved. Furthermore, if private conversation is necessary and players use the "whisper" function to conduct it, those players are very much actively participating, and it is difficult to reduce this to simple "spectating." While it is true that mediation occurs, there is nevertheless still an active element to talking online, as well as rules which govern the medium, much as face-to-face conversations are still governed by social cues and rules. Assimilating games into the same category as spectator television is further problematic due to the previously stated fact that as a media form games are not passive, whereas the spectating of a television broadcast is. Therefore, it cannot be stated that participation in an online space is akin to spectating; spectating is inherently passive, while participation in a virtual world or space involves more than a one sided-conversation.

While the results of the informal poll conducted on MMO-Champion were enlightening; I was curious to see whether a group of power-gamers had a different answer to where they play; thus, I polled the members of my guild Tyranny (Figure 12). Through this poll, I was able to add greater specificity to the questions and potential choices, including as to whether or not players playing at home also played with others in the same physical location. The results were very similar to the MMO-Champion poll, with 54% of Tyranny members opting to play in their bedroom. However, unlike the international MMO-Champion poll I was also more certain of where the Tyranny Members were actually located, which was primarily North America. Furthermore, the majority of these players opted to get their sociability from gaming purely online, as opposed to spending time with others in the real world while playing the game.

Poll: Where do you play? (35 member(s) have cast votes)	
Where do you play WoW?	
★ Bedroom (19 votes [54.29%])	
Office (6 votes [17.14%])	
Living Room (9 votes [25 7]%])	
Internet Cafe (0 votes [0.00%])	
Other (1 votes [2.86%])	
Do you play WoW with people that are in the same room as you are?	
★ Yes (5 votes [14.29%])	
NO (24 Votes [68.57%])	
Sometimes (6 votes [17.14%])	

Figure 12. Results of the guild poll

In this way, gaming is done in private spaces, removed from the presence of others (the bedroom), yet allows entry into another world of sociability (a third place) online. In fact, one of my guild-mates found it surprising that more people than just her opt to play elsewhere than the bedroom, stating that she thought that the bedroom was the norm for gamers:

im surprised at how many ppl play in the living room as opposed to bedroom, glad im not the oddball, i thought bedroom was the norm for gamers tho

This guild-mate lives in an apartment in New York City with her large family; as such, her bedroom is too small to facilitate having a computer there. Due to this, she is forced to play in the public space of her living room, which often results in the rest of the guild becoming privy to the sounds of her real-world life, such as her family moving around and conversing, whenever she uses voice chat. Another guild-mate responded to the poll with a tongue-in-cheek joke about "real gamers," referencing the fact that members of Tyranny are expected to play a lot, and having the computer in the bedroom supports this: Every real gamer knows that you need your computer next to your bed for shorter movement distance between sleep and play.

This was met with the response that though she would like to play in her bedroom, it is just too small for her desk and equipment, and thus she is forced to play in the living room:

lol, thats why i tend to sleep on my couch A LOT. My bedroom is just too small to fit my computer desk in, I would have no room to walk lol, would have to climb over the bed to get anywhere if i did that haha.

So while the majority of Tyranny players answered that they play in the bedroom, there can often be social and physical conditions which can limit or affect the room that players ultimately chose for their computers. In the case of my guild-mate in New York City, a small bedroom forces her into the living room; however, other factors such as having roommates, families, small children, or even thin walls can also predispose players to prefer specific rooms for gaming. Further questioning of the power-gamers in Tyranny showcases that gaming is typically done as a solitary activity, with sociability coming from the game world itself, in this case playing with other guild members online in Azeroth.

These results are in stark contrast, however, to how *WoW* and other games are played in Asian countries; specifically China and Korea, which utilize real-world third spaces, the *wang ba* and the "PC bang," respectively (Nardi 179:2010, Jun-Sok 2008:27). Outside of Western computer culture, the incidence of physical third places taking form in a cultural variant of the internet café is very common. In *Dating in a Sexually Segregated Society: Embodied Practices of Online Romance in Irbid, Jordan,* Laura Pearl Kaya explores this through the dating habits of women in Irbid, Jordan, who extensively utilize internet cafés as public spaces in order to facilitate the otherwise-taboo practice of talking to men. Middle Eastern women have struggled with public spaces since the 19th century:

Since the late nineteenth century, Middle Eastern women have steadily increased their presence in "public" spaces, such as the street, the university, the market, the office, and the mosque (Macleod 1993, Arat 1997, Asfaruddin 1999, Massad 2001, Thompson 2000, Newcomb 2006). While modernization projects throughout the region have relied upon them to do just that, concerns of honor and respectability have nevertheless haunted their efforts. Specifically, many local observers have feared that women in public space would form sexual or love relationships outside of the bounds of conventional courtship and marriage. (Kaya 2009:253)

Kaya further argues that internet chatting takes place in a "sphere" which qualifies as a third space:

In this paper, I will discuss how women navigate the terrain of respectability while violating one of its seemingly most basic rules. I will argue that internet chatting takes place in a "sphere" which is neither public nor private as these terms are usually conceived in the literature on the Middle East (Kaya 2009:254).

So while the internet café is deemed a public space, and therefore potentially problematic for Middle Eastern women, especially in relation to talking or interacting with men, the internet in these cafés (and in general) is deemed a third space, where it is much less problematic to partake in these activities (Kaya 2009:264). This use of internet as a third space somewhat transcends the cultural issues of spatial oppositions of the public and private. While this is somewhat different from the *wang ba* and PC bang, the internet café as a space that promotes sociability via the internet is salient and something not found in Western culture to nearly the same extent. This is exemplified in Kaya's description of the layout of Jordanian internet cafés:

At first glance, the Western-ness of the cafés' physical plant appears seamless. There is, however, one spatial element universally present, in my experience, in Irbid internet cafés, which is almost never found in similar computer facilities in the US, where computers are usually backed by a wall or partition; in Irbid cafés, on the other hand, patrons' chairs are positioned against the room's outer walls, facing each other, with each individual imperfectly shielded by her computer. (Kaya 2009:264).

Kaya further states that "the relational construction of space in the internet café mirrors that of social space in the home" (Kaya 2009:264). In contrast, Western computer use, as examined above, is most often relegated to the private (the bedroom within a private dwelling); however, computer use in Jordan, Korea, and China most typically takes place in public spaces. North American internet culture is based around the general-purpose desktop computer, often called a "home PC" or "personal computer." The very way in which computers are referred to in the West implies a personal ownership of the machine; there is a marked difference between a personal computer, and a public computer. The notion of the PC in the home encourages a fantasy of "cyberian apartness" where social interaction with people online is done from the privacy of your own room:

These terms [cyberspace and virtuality] focused on the ways in which the new media seemed able to constitute spaces or places *apart from* the rest of social life ('real life' or offline life)." Christine Hine (2000: 27) has a similar view of "virtual ethnography": "A focus on community formation and identity play has exacerbated the tendency to see Internet spaces as self-contained cultures, as has the reliance on observable features of social organization." Miller and Slater (2000: 5) suggest that we start from an assumption, now well-established, "that we need to treat Internet media as continuous with and embedded in other social spaces, that they happen within mundane social structures and relations that may transform but that they cannot escape into a self-enclosed cyberian apartness. (Ito 2005:6)

So in reality, the fantasy of "cyberian apartness" of the North American gamer is really the result of how space is constructed in regards to the public and the private. While internet use in the *wang ba* was driven by both sociability as well as better hardware, and ensured high-speed internet (Nardi 2010:180), larger living spaces in North America resulted in computers entering the private sphere of the bedroom instead of forcing users into the public to use them. This can also be seen when comparing Japanese mobile phone and internet use to that of the home PC. North Americans were slow to adapt to mobile use due to the erosion of personal space, further cementing the idea that technology should very much stay in the private and not emerge into the public:

For example, the US has been characterized by slow uptake of texting and mobile Internet usage. This could be attributed as much to the greater presence of PCs and broadband access as to inadequate business models and technological standards. In the US, mobile phones are not universally heralded as an "advance," but have continuously been questioned as a problematic technology that erodes personal space. (Ito 2005:5).

Cyberian apartness, then, stands in contrast to the publicness of mobile phone use, specifically in Japan and other highly technologized Asian countries like South Korea, where even in public a person can be surrounded by a cocoon of private technology made possible by the mobile phone. While North American gamers seem to be culturally predisposed to playing games in the private sphere yet finding sociability in the third space of the internet, many other cultures use technology in the public sphere, either as a form of sociability, or by using the technology itself to form a private space within the public.

Nardi found that Chinese players opted to play in the *wang ba*, which is most easily compared to an internet café in North America, and that, in fact, "the major difference in play between China and North America was the setting in which the game was often played – the *wang ba* or Internet café" (Nardi 2010:179). In this setting, players are surrounded by other players, mixing both virtual and physical social interactions (Nardi 2010:179). The reasons that Chinese players chose to use the *wang ba* varied, with many Chinese players reporting to Nardi that their choice to play in *wang ba* was either because they "did not own personal computers," or "because they had low Internet bandwidth and/or low-end computer equipment" (Nardi 2010:179-180). However, in Nardi's experience, Chinese players did not only choose to play at *wang ba* for utilitarian reasons, but for social reasons as well: "Qiu and Liuning (2005) observed that Chinese players frequented Internet cafes not only because of the computer equipment but to meet friends and peers" (Nardi 2010:180). This was further influenced by the physical constraints and living conditions present in China, where the small living spaces often meant that there was simply not enough room to play at home:

We observed this social practice and also found that tight living spaces and family dynamics affected decisions about where to play. The rooms in student dormitories we visited were shared by four to eight people and could accommodate no more than a small desk and bed for each student, an area that was also used as a work space. (Nardi 2010:180)

Through the combination of tight living conditions that made it impossible to game at home and a desire for sociability outside of the game world, Chinese players were led to overwhelmingly prefer *wang ba* as opposed to gaming at home like their North American counterparts. Whereas North American gamers are happy to interact socially strictly online, Chinese players place heavy value on the social atmosphere of the *wang ba*:

The social atmosphere of the *wang ba* was crucial to players' experience. A young business professional with good equipment at home explained that he nonetheless went to *wang ba* because: *Home has no atmosphere*. Another player said: *I enjoy playing at the café because there are more people, it's more exciting*. *Most of the guild activities are at night, so the people all show up late in the Internet café. I enjoy the atmosphere of people playing around me*. (Nardi 2010:181)

The result of this style of play is that Chinese players develop a hybridized sense of sociability while playing *WoW* as well as other games in the *wang ba*. Nardi found that entire guilds of Chinese players would often game in the same *wang ba*, mixing both verbal and online forms of communication and sociability:

Guild members sometimes met face-to-face in *wang ba* to play together. One player told us that his whole guild had developed, and played together, in a cafe. Often guild members living in the same city knew each others' phone numbers and coordinated playtimes on the phone. (Nardi 2010:181)

This type of hybridized social play is not found in North America or Europe to the same degree. At most, small groups of players may meet up to play games at a "LAN party," or may play games with someone living in the same household, but there is no motivation or desire to leave the house to go play games in a physical social setting, such as travelling to an Internet café to specifically play *WoW*. As seen in the poll, no Tyranny members play at an internet café, and only six percent of the MMO-Champion players play somewhere other than the bedroom, living room, or office (although it is not specified in many cases what this means).

Similar to their Chinese counterparts, South Korean gamers also frequent internet cafés – referred to as "PC bangs" – in order to play games, as opposed to strictly gaming at home. Unlike China, however, broadband internet was widely available to public homes in South Korea after *StarCraft: Brood War* (released in 1998) facilitated the demand for high speed internet access (Jun-Sok 2008:27). Nevertheless, despite the ability to play games at home, South Korean gamers still chose to play games primarily in PC bangs preferring them due to their sociability (Jun-Sok 2008:27).

In the face of the high accessibility of broadband available in homes, many Korean players continue to prefer the social context of PC bangs, highlighting the importance of the space in providing context and meaning between online and offline experiences of online gaming. (Jun-Sok 2008:27).

The PC bang should not be interpreted as simply the South Korean version of an internet café. To South Koreans, the PC bang represents not only a space to use a computer, but also a place of sociability: "...for Koreans, the PC bang is a social space that traverses online and offline co-presence (Chee, 2006), a space that is associated with the phenomenon of online gaming and the online/offline communities it reproduces" (Jun-Sok 2008:27). Even on this level alone, the similarities between the *wang ba* and the PC bang are apparent: both Chinese and South Korean gamers choose to play at these locations, favouring a social atmosphere that hybridizes online and offline social interaction, and value it above playing at home, even when they are able to do so.

This is corroborated by my recent fieldwork in South Korea, where I was able to spend some time in PC bangs as well as attend a live *StarCraft II* match. I spent five days in Seoul during August of 2015, where temperatures soared, and the humidity, at least for me, was nearly unbearable. Finding a PC bang was a relatively simple task, I simply had to look for a sign like the one portrayed in Figure 13; there was a PC bang on almost every corner. Figure 14 and 15 show what the entrance to this specific PC bang looked like, with advertisements of different games and sponsors. Walking in to the PC bang itself I was met with a wall of air conditioning, an absolute luxury compared to most of the buildings I had been inside. A clerk at the counter greeted me and handed me a card (Figure 16) before returning to his own game at one of the computer stations. This card allowed me to log onto a computer, and recorded how much time had elapsed. The cost for an hour of gaming was around 1000 Won, which at the time was the equivalent of roughly one Canadian dollar. This cheap access is one key difference between Western

Internet cafes, where I have paid up to five dollars an hour for low quality computers and connection. Due to this cheapness, players often play in marathon sessions, and as food and drink are both readily available in the surrounding area, as well as in the PC bang itself, I can see why. Aside from ease of access, the computer itself is of very high quality, and able to run all of the popular games on the market. The chair was comfortable, and the peripherals (keyboard, mouse, and headphones) were all of high quality. Figure 17 shows Korean gamers at their PC stations. Although the desktop of the computer (Figure 18) was in Korean, I was able to navigate it without too much trouble, and started to play a few different games, of which there was a large selection. As I played games, and checked my email, it became apparent that the PC bang was a very different type of space when compared to the Western notion of an internet café. Instead of surrounding themselves in a cocoon of technology, the Koreans in the PC bang chose to talk, laugh, play music, and even movies, with no regard for the volume of their computers or voices. While in Western internet cafes people are generally observed using headphones; it is frowned upon to make excessive noise. However, this is in contrast to what I found in the PC bang, which had a mix of people using headphones and speakers, and noise was generally accepted as the norm. Instead of treating the PC bang as a space of privacy as in North American internet cafes, it is treated more as a space of socialization.



Figure 13. A sign for a PC bang in Seoul, noting that it is on the third floor.



Figure 14. On the way up the stairs to a PC bang.



Figure 15. Entrance to a PC bang in Itaewon, Seoul.



Figure 16. Card used to record how much will be owed.



Figure 17. Players in a PC bang.



Figure 18. Desktop of a computer in a PC bang.

I also attended a live *StarCraft II* event put on by GOM eXP, a studio that specializes in professional gaming and broadcasting. This event lasted for around five

hours, with four players being pitted against one another in a one-on-one style round robin. The game was broadcast on a large screen and several smaller screens around the room for the audience (Figure 19). Much like traditional televised sporting events there was sizeable audience (Figure 20), pre and post-game interviews (Figure 21), and announcers (Figure 22). Even though this particular match was nothing special there was still a large crowd consisting of Koreans (the majority), as well as some foreigners. This match was broadcast over the internet, on websites such as Twitch, as well as live on Korean television on their OnGameNet gaming network, but regardless of this the event still drew a crowd. While live gaming events do happen in North America and Europe, this type of Korean gaming event is notable due to the frequency at which they occur; this was not an event that happened every few months, but something that happened daily or weekly. Additionally, even though the exact same experience was able to be had at home by watching on television or the internet, Koreans opted to come and watch the game in person. Unlike a sporting event where the athletes are actually visible on the field, a live gaming event still takes place on a screen (the players sitting in booths), and what is visible on the screen is what is seen at home as well. Regardless of this, Koreans watch these matches in person, much as people choose to attend a live sporting event with others as a form of sociability. This is much the same as the PC bang, where even though high-speed internet is now widespread and readily available almost everywhere in Seoul, South Koreans choose to play in PC bangs, not because they are forced to, but because it allows them to socialize with friends, and to be in a social setting instead of playing alone at home.



Figure 19. A large screen onto which StarCraft was projected for the audience.



Figure 20. *The audience during a break in gameplay, while an interview takes place in the back of the room.*



Figure 21. The winning player of the day is interviewed.



Figure 22. The announcers at their booth in front of the screen.

The practice of gaming at PC bangs is not relegated to only the "casual" players of games, but also power-gamers and professional gamers as well. One of the most prominent StarCraft players, Lim Yo Hwan (known best by his screen-name *SlayerS 'BoxeR'* or colloquially "Boxer"), started his professional career playing in PC bangs with his friends. Because his family did not have access to the internet at home, his first reaction to playing games with others was one of shock: "How could a person like me without even a computer at home know anything about the internet? The fact that people all over the world could connect to one location and play was an astonishing experience, beyond watching a science fiction movie" (Lim 2004:40-46). Lim combined online and offline play by playing with others at the PC bang but also watching his friend play against others on the *Battle.net* service that allowed players to play *StarCraft* over the internet: "Ever since that moment, I began to play all night in the PC bangs. It was fun that I could play with new people, but another interesting point was that the strategies that I used against my friends no longer worked on Battle.net" (Lim 2004:40-46). The PC bang not only acted as a space of social interaction, allowing Lim and his friends to play together, but also offered a gateway to global play via the internet. Gaming as a social activity, even at the highest levels of play in games such as *StarCraft*, is very important to South Koreans.

This social element is so important, in fact, that many South Korean gamers seek it out, even recreating it outside of the walls of the PC bang. While Lim got his roots playing the game as a young teen in PC bangs, professional *StarCraft* teams in South Korea often game together in the same house, practicing and living together under one roof. Referred to as a "Team House," such arrangements most often involve "an accommodation, usually an apartment, or house, whereby a group of players live together to amplify their practice regime and through a collective effort, improve their knowledge of the game" (Liquipedia 2015a). Professional North American and European players have been known to move to South Korea in order to participate in this sort of lifestyle, as this is not something that is commonplace in Western countries. The "cyberian apartness" that is present within Western culture is seen as detrimental to practicing *StarCraft* at a high level, and is problematic in relation to playing on a team. One of the few North American teams that has a team house is *Evil Geniuses (EG)*, who opened a house for their members to live and practice in, located in Arizona (Liquipedia 2015a). However, the notion of a North American team house is quite recent; prior to this, in the era of *StarCraft: Brood War*, players like Greg Fields opted to move to South Korea in order to better their gaming skills in a team house, as it was an environment unlike anything available in Europe, Canada, or the United States. Greg Fields, known as IdrA, originally from New Jersey, was offered this opportunity after performing extremely well at a tournament:

After one of his biggest accomplishments to date - winning the eSTRO SuperStars tournament, the Terran player IdrA was given the rare opportunity to be a part of the Korean progaming team eSTRO. Several months later, IdrA was given a progamer license and sent to CJ Entus in an effort to spread foreigners amongst the progaming teams (American Protoss player NonY had also recently joined eSTRO). (Liquipedia 2015b)

Even at the highest level of play, the sociability of gaming in Asian countries is given far more emphasis as a hybrid of online and offline interaction, whereas North American and European players choose to game in non-social settings. North American and European power-gamers opt for a non-hybridized style of play, relying on online interactions for their social needs. While more casual gaming often involves friends or others (console gaming on the couch for example), Western power-gamers spend large swathes of time physically alone, yet playing with others online, a philosophy which is in direct opposition to the concept of a team house in South Korea. This should not, however, be interpreted in a way that portrays North American and European gamers as not desiring social interactions in the physical world while gaming. Western gamers still display a strong desire to play with others in the real world, but these social events are viewed more as special occasions, rather than everyday occurrences. LAN parties are a good example of a Western social gaming event which places emphasis on playing with people in the physical world at the same time as in the game world:

In student dormitories where LAN parties are held, and social networking software such as Facebook is utilized to organize dorm social life (Ellison et al. 2007; Lampe 2007), a merge of the physical and digital takes place. (Nardi 2010:182)

As a guild, Tyranny has members spread across the United States, Canada, Australia, and, Brazil. These players may meet up intermittently at events such as BlizzCon, or occasionally if they happen to live close to each other, but this is by no means the norm, and when meet-ups do happen they are comprised of only a small section of the guild. The main difference between Asian and Western gaming motivation is the frequency of these sociable events: where Chinese and Korean players may go to a *wang ba* or PC bang as a daily occurrence, social gaming in the offline sphere for Western gamers is something that occurs fairly infrequently. While some of the sociability of playing games together can be seen when players attend LAN parties, or play together in one room, Western gamers have different desires for social interaction when compared to Asian players.

These differing styles of sociability may influence more than just social skills, however – perhaps even how skilled a player may be at a certain style of game. South Koreans are typically seen as the best *StarCraft* players in the world, usually outclassing many other "foreigners" (any player not from South Korea, including Western players). This is often the topic of discussion on various *StarCraft* communities and forums. One such discussion took place on the official *StarCraft II* forums:

BlueZero: this is intended to be a thread where we talk about: "what koreans got that make them good." cause it is obvious we got a very localized area of starcraft experts. i think it is the local leagues and higher prize pools.

Another member then responds that he thinks that because they play socially and more often, they will naturally be better than more casual power-gamers found in Western countries:

Hunta: They eat and breathe StarCraft 2, and most practice for about 15 hours a day in very social team houses so they can improve quicker. Sometimes they play for around 20 hours, they just are far more dedicated and have better mindsets than others around the world. It's also a part of their culture and is accepted on a much higher scale.

It is widely accepted that because gaming in South Korea is done as a social activity, it

typically fosters faster improvements for individual play, as reflected by Hunta's comments above. Perhaps, then, it isn't a mystery as to why South Koreans are so much better than other players at *StarCraft* after all: the sociability of their play-style leads to better play and more rapid improvement. While there has been little work yet attempting to quantify this notion, it is evident that there is a distinct difference in how Asian and Western gamers approach games, with the fundamental difference being that Asian gamers treat gaming as a social activity in both the real world as well as online. It is hard to say what the results would be if Western gamers adopted the same style of gaming as their Korean counterparts, as has been seen with teams like EG; however, regardless of whether or not such an adoption would increase "foreigner" presence on the international *StarCraft* scene, it is clear that sociability plays a role not only in fostering relationships among South Korean gamers, but also enhancing player skill and play-style.

Conclusions

While sociability is not the ultimate goal of power-gaming, it is something that is inherent to playing games online. Differences in how North American power-gamers view Chinese power-gamers in WoW gives a clear picture of where values are placed when examining what constitutes "fun" for a player. While North American players stereotype all Chinese players as "gold farmers," there is irony in the fact that while a small subset of Chinese players may farm gold as a job, most Chinese players actually maintain the same core values of playing a game, and exhibit similar power-gaming characteristics to their North American and European counterparts. In examining this stereotype, it became obvious that Western gamers play games for similar reasons, primarily sociability; however, they exhibit this sociability in very different ways. By examining the private and the public it is clear that Western gamers prefer to game in private (the bedroom) and gain sociability through the third space of the game itself, whereas Asian gamers prefer to play in public, and gain sociability in both on and offline formats. In extension, power-gamers – specifically in the game StarCraft – rely on this real-world sociability to inform their practice habits and team work, resulting in North
Americans trying to emulate this foreign concept, or to physically move there themselves with the goal of bettering their play. In relation to sociability in MMOs, Taylor succinctly sums up types of play when discussing guilds in *EverQuest*:

Membership in a guild offers players admission into a broader social network. In general two types of guilds exist: family guilds (sometimes called "social guilds") that emphasize personal connections and playful engagement with the game, and raiding guilds (sometimes called "uber guilds") marked by very well-articulated commitment to pursuing the high-end game. While social guilds involve complex social systems, raiding guilds are also heavily reliant on social mechanisms. (Taylor 2009:43).

While power-gamers in a guild such as Tyranny may not be participating in real-world sociability while they play, they are participating in sociability in online forms, whereas Chinese and Korean players prefer to participate in both on and offline sociability while playing. It is evident that sociability in games is extremely important in varied types of play; whether the player's aim is sociability itself, or whether players socialize out of necessity while power-gaming, sociability plays an interlinked role in online gaming. By understanding why sociability is important, and how players in different cultures play games, it is apparent that while power-gamers may ultimately have "fun" in different cultural background.

CHAPTER FOUR: REALITY, "THEORYCRAFT," AND SCIENCE

Virtual worlds constitute a unique type of space in which a person can inhabit a world with its own set of rules and regulations, while simultaneously inhabiting their own world with very different sets of rules. This is achieved via the use of an avatar, a representation of whoever the player wants to be, made to explore the world created within the confines of a machine (in this case, the computer or console). It is through this afforded reality that players are able to explore other worlds, and through this exploration perform a type of knowledge-seeking that parallels scientific discovery and research performed in our own reality. This type of scientific exploration within game worlds is called "theorycraft," and it is through theorycraft that players are able to understand the world that their avatars live in, much as we use science and philosophy to understand our own. Theorycraft mimics specific aspects of scientific experimentation and discovery, often utilizing peer review, open discussions, and mathematical modeling to discover the invisible mechanics of virtual worlds. This practice is especially important to powergamers, and has spawned entire subcultures within power-gaming communities composed of players dubbed "theorycrafters." Through this type of game exploration, power-gamers are able to understand the absolute maximal way to go about performing activities in the game, and, as we will see within *WoW*, the implications on competitive play are huge. It is first necessary to examine how reality is constituted in a virtual world using Charles Sanders Peirce's concepts of firstness, secondness, and thirdness. This chapter seeks to understand how "theorycraft" mimics scientific discovery by examining how the power-gamer resides in a virtual world, and how a concept of reality unique to that virtual world is necessary. Realities, both in virtual worlds and in our own, construct

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boundaries that science (or theorycraft) allow us to explore. Without understanding conceptions of reality in a virtual space, it is impossible to explore how players come to understand the constraints of those spaces.

Virtual Worlds and Reality

A virtual world can be described as an environment constructed within the digital confines of a computer. Much as a book's reality is constructed by the picture the words paint in its reader's mind, a virtual world's picture is built by strings of code that relate to pictorial representations that allow the player to see and interact. Players are able to connect with these worlds via computers, interfacing with tools which allow their characters within these worlds to persist in a reality constructed by rules and resistance.

Different virtual worlds employ reality in different ways. Reality in 2D or textbased games are largely constituted by an imagined world which relies on the user's imagination and interpretation of how the world would be. Modern 3D MMOs, on the other hand, build the world for the player, and in turn, its players are at the mercy of the rules and constraints inherent to the game world, which are dictated by the game's design. Much like the real world, a virtual world limits what you can and cannot do. Paul Manning discusses how Peircean categories can apply to virtual worlds in his unpublished paper *Animating Animality and the "Virtual Living World":*

A virtual world, after all is a composition of a social universe inhabited by many other human players ("Massively Multiple Online"), inhabiting virtually a three dimensional pictorial fantasy setting, which is also a performative space or game in which players can interact consequentially with this fantasy setting as well as other players. (Manning 2014:1) Manning suggests that sense of reality that is felt within a virtual world can be described loosely using the Peircean category of "secondness," or "the sense of *acting* and of being *acted upon*, which is our sense of the *reality* of things" (Peirce 1894). It is important to understand how a virtual reality fits not only into secondness, but also firstness and thirdness. Firstness, according to Peirce, is described as the following:

Firstness is the mode of being which consists in its subject's being positively such as it is regardless of aught else. That can only be a possibility. For as long as things do not act upon one another there is no sense or meaning in saying that they have any being, unless it be that they are such in themselves that they may perhaps come into relation with others. (Peirce 1903)

With poetic license and necessary abuse of Peirce's categories, Manning takes firstness as the purely pictorial image of the game, a dimension in which one is present to the world but this sense of acting and being acted upon which gives that picture a sense of reality – secondness – is absent. A game that consists only of firstness would approximate something like *Myst*, by Cyan, Inc. (Figure 23), where the world consists of pictures (and some animations) which are strung together, but with there being no causal linkage between the player and the world (secondness). The player has no meaningful impact on a world like this, and it becomes a game of finding which picture turns into an animation when clicked.



Figure 23. A screenshot from Myst

The comparison of *Myst* versus that of its successor, *Uru*, provides an interesting example of this. Celia Pearce compares *Uru* and *Myst* and makes note of *Myst*'s pictorial quality: "This means it was both navigable and inhabitable in a way that most (though not all) of the earlier games, which were essentially nonlinear slideshows, were not" (Pearce 2008:5). The lack of a visible avatar that the player can customize is also something that distinguishes *Myst* from *Uru*, and one that impacts whether the game consists of only firstness, or whether it moves on into secondness (Pearce 2008:5). Pearce states that having an avatar enhances sense of identity, and this subsequently impacts the link that a player forms between themselves and the world: "My research showed that the ability to visualize oneself as a unique and personalized character in the *Myst* world introduced both an experience of proprioception, enhancing players' sense of embodiment in the world, and also a sense of unique identity" (Pearce 2008:5). Pearce further states in her

article *Communities of Play: The Social Construction of Identity in Persistent Online Game Worlds* that avatar embodiment changes the player experience from one of "faux virtual reality" to one of feeling that the player is in an actual world, going from firstness to secondness:

The first-person viewpoint enabled the *Myst* series' hallmark "faux" virtual reality effect (the game consisted primarily of still images), which enabled players to feel a sense of immersion, the panacea not only of games, but also of traditional virtual and "presence" research. (Rheingold, 1991; Pearce, 1997). But the first-person viewpoint also created an ambiguous identity and a feeling of anonymity. In *Uru*, the addition of the avatar gave the player a specific, customizable identity and a sense of embodiment. (Taylor 2002) In the role of a human explorer, for the first time, they could see *themselves* inside the beloved *Myst* world. (Pearce 2005:1-2)

Within a virtual world such as Azeroth, firstness can be attributed to the pictorial dimension of the surrounding world. However, Azeroth as a whole is not like the world of *Myst*, and is not limited to firstness, firstness simply makes up one such layer: the art that represents the world surrounding the player. Without this pictorial representation, the world would have no means to be represented outside of our imagination, and would be a style of text-based narrative such as a "MUD" (Multi-User Dungeon), the world of which is imagined by reading descriptive text much like a book. Dibbell describes a MUD, stating that "it was a kind of database especially designed to give users the vivid impression of moving through a physical space that in reality exists only as words filed away on a hard drive" (Dibbell 1993).

Secondness, on the other hand, is how a virtual world constitutes itself as a reality to the player. The world does not become real to the player until it in some way resists the actions of the player. If the world does not react, there is no sense of reality; in fact, I would hesitate to call an unreactive space a world at all. Secondness, according to Peirce, must involve some sort of reaction, and in a literal sense, relates to actually playing the game and the performance involved:

The actuality of the event seems to lie in its relations to the universe of existents. A court may issue injunctions and judgments against me and I not care a snap of my finger for them. I may think them idle vapor. But when I feel the sheriff's hand on my shoulder, I shall begin to have a sense of actuality. Actuality is something brute. There is no reason in it. I instance putting your shoulder against a door and trying to force it open against an unseen, silent, and unknown resistance. We have a two-sided consciousness of effort and resistance, which seems to me to come tolerably near to a pure sense of actuality. On the whole, I think we have here a mode of being of one thing which consists in how a second object is. I call that Secondness. (Peirce 1903)

This resistance can be taken literally or figuratively. If I hit a table in real life, I expect my hand to hit it and to not pass through; this registers it as real to my senses, and not an illusion or trick. Likewise, if my avatar runs into a wall in a virtual world and is greeted by resistance, my perception of that world as a reality is intact, as relationally the same thing would happen in the real world. However, if I am able to run through the wall and in doing so encounter no resistance, my perception of reality is shattered. Reality in this case has direct relation to reality in the real world, with which I reference my avatar's actions and reactions. Furthermore, secondness requires, among other things, an avatar, which creates two things that interact; the avatar and the world, as well as the avatar and changing space-time coordinates in that world. This combination of factors allow the player to see that they are in a specific location in a virtual space, which in turn allows secondness to take form.

Resistance can also be met in a non-physical sense by way of thirdness: other players. In a virtual world, thirdness is comprised of the other players who are encountered. Peirce states that:

A rule to which future events have a tendency to conform is *ipso facto* an important thing, an important element in the happening of those events. This mode of being which *consists*, mind my word if you please, the mode of being which *consists* in the fact that future facts of Secondness will take on a determinate general character, I call a Thirdness. (Peirce 1903)

The rules that Peirce refers to here are the rules of language. In a game, interactions with other players are mediated by language, speech, and the symbolic order; reality is constituted when this thirdness – communication with other players – interacts with the player's own. The fact that one can talk, argue, converse, and have meaningful impacts on other players – even if they reside thousands of physical miles away – adds to the sense of reality that is felt within a virtual world.

The pictures presented in a virtual world (firstness) are effectively as real as a painting; they are a representation of reality. In this way, firstness is linked to what Nardi would call the "visual experience" (Nardi 2010:52). Only through resistance (the interaction of the avatar and the world) – made possible by the computer and code – does the pictorial firstness become a reality ("secondness"), in what Nardi would call "performance" (Nardi 2010:52). Furthermore, having an avatar changes the player's experience of the picture-world by producing presence which leads to immersion, with such immersion being first, second, and thirdness within one entity, discussed later as "worldness." The social presence of other players animates the world with living voices; Manning, in a lecture on Peircean categories, puts this succinctly by stating that "virtual worlds are pictorial representations of worlds . . . They are also 'real' because they contain resistance, trials, and 'whatever resists trials is real." Virtual worlds also embody thirdness because "they are a common culture . . . they are social worlds because they contain social others" (Manning 2015). It is necessary to note that his use of Peircean

terms is intended to be loose, except for secondness which is literally correct. This allows experiences in a virtual world to be a communally-shared entity, giving meaning to events and providing a sense of reality.

Reality in Azeroth

If I (using my avatar) jump off of a cliff in Azeroth, I may die depending on how far the fall is (Figure 24). If I fall only a short distance, I may take a small amount of damage; a farther fall may result in more damage, based on a percentage of my life bar. In the real world this is also true, where a short fall may not injure a person, but a fall from a greater height could result in broken bones, or, more severely, death. Of course in Azeroth death is not permanent, so I am able to show you what happens if I actually jump off of a cliff without having any permanent repercussions. The way in which my death is recorded, and why I died, is shown in the combat log (Figure 25) in the interface as well, so it is very clear that my injuries sustained were only to falling and not to some other hazard in the world (of which there are many).The game designers did not have to include damage from falling – many other games do not, after all – however, this type of inclusion enhances the reality of Azeroth through resistance.



Figure 24. My death after falling down a cliff



Figure 25. Combat log information

Being able to draw parallels from the real world allows players to understand the constraints of the virtual world. The main aspect of reality, and likewise the main element of what makes a virtual world believable, is the boundaries exerted by the game designers via code. In the previous example of falling, the world, through the code, resists the player by killing them if they fall too far. This creates a boundary (or rule) for players:

falling is bad and can injure you. These boundaries are then pushed, the rules tested, as players experience the world that surrounds them. Through exploration and theorycraft, the player comes to understand the virtual reality as a believable and cohesive virtual world: a world which interacts via rules and algorithms, a world which affords and resists, is a world that gives a sense of it as a real place – a living world – while the population of players and communication with them animates that world in a different way at the same time. As John Law states in *The Materials of STS*, "whatever resists trials is real":

Something becomes material because it makes a difference: because somehow or other it is detectable. It depends, then, on a relation between that which is detected and that which does the detecting. Matter that does not make a difference does not matter. It is not matter since there is no relation between. (Law 2008:2)

The resistance found when my avatar falls off of a cliff, and the fact that the world reacts, and my avatar reacts, is what allows theorycrafters to study the in-between, much like scientists study reactions and resistance in the real world. This resistance not only makes a virtual world a potential reality, but also allows the players to examine the "how" and the "why" of what is otherwise veiled to them, paralleling scientific method and exploration in the real world.

Science, Exploration, and "Theorycraft"

While science is not performed in virtual worlds in the form of laboratories and universities, the basic premise of scientific discovery exists in the form of players striving to understand how the world in which their avatars reside functions. Understanding how a virtual world or game functions is known as understanding the mechanics of the game (Nardi 2010:137). However, not all game mechanics are immediately obvious, and many in a game such as *WoW* require regular play, repetitive observation, and reliable recreation:

Some [game mechanics] were discoverable through ordinary play, but others required systematic analysis. "Theorycrafting" is the discovery of rules that can not be determined through play. *WoW* came with almost no documentation, and while Blizzard employees sometimes answered questions on official forums, in general the absence of documentation left many juicy problems for theorycrafters to solve. (Nardi 2010:137)

Much like how many facets of science and scientific discovery cannot be discovered by simply walking around, theorycraft also requires careful and controlled observation in order to discover new ways to play the game, and understand the world around the avatar. Science, as a concept in a virtual world, is explored and created when players seek to understand the world their avatars reside in, yet are constrained by the rules and limitations set in place by the code of the game. The code in this case designates everything from the laws of physics within the game world all the way down to what a tree might look like, if trees exist in that reality. By virtue of this, the code leads to much the same limitations as that of text within a book or narrative; the main difference, however, is that the reader interprets text and creates the world the book portrays using only their imagination, whereas a virtual world is interpreted by a computer and portrayed on a screen for one to view visually.

A deep understanding or involvement in theorycraft is not necessary to play the game for the average player. For the power-gamer, however, understanding the intricacies of how their avatar interacts with the world is important to playing efficiently and at the desired skill level. Theorycraft seeks to undress the visual experience, and to understand the world; bound by a genuine curiosity or perhaps a competitive drive, they seek to know the numbers behind the pretty pictures, to find the secrets of how the world works behind the tooltips of their abilities. If the world did not resist the player, there would be nothing to theorize, no feedback to test against. In this way, then, theorycraft is oriented to discovering the world that resists, the world of presence.

Theorycrafting in Azeroth

The definition of skilled play varies wildly depending on the genre and type of game being played. In Azeroth, however, skill is defined as your proficiency to survive within the game world. This is a broad definition, of course, but one which encompasses much, if not all, of what a player does in the game world. Player skill is determined not by a set list of qualities, but rather by a combination of factors that add, subtract, and multiply to make you a "good player." Nardi defines skilled play in terms of "performance":

Visual and performative experience in *World of Warcraft* were entwined, feeding back into one another. Accessing new visual experience and advancing in the game were mutually efficacious; attaining a level of performative mastery was necessary for "seeing new content," as players said, while at the same time experiencing new content opened possibilities for performative challenge. (Nardi 2010:53)

Regardless of whether a player is actively engaging in theorycrafting himself or simply using the findings of others to stay informed, theorycrafting often goes hand-in-hand with being a skilled player. In many cases, playing at the highest levels of the game requires players to be up-to-date on the latest information gained from theorycraft to remain educated on the game world, mechanics, and their avatar's capabilities.

The origins of the word "theorycraft" do not stem from *WoW*, but rather from another Blizzard Entertainment title, *StarCraft*. The term originated as a play-on-words

of the game's name, drawing on a joke that people spent as much time, if not more, theorizing about the game instead of actually playing it:

Theorycraft originated from the PC game *StarCraft*. The term was coined after countless new players would argue with each other about how certain strategies were superior to other strategies without actually putting any of these concepts into practice. This later evolved into a game in itself, albeit sarcastically. From *StarCraft* to Theorycraft. (Urban Dictionary 2012)

Furthering this, in World of Warcraft it can be defined as "similar to the StarCraft definition in that it is based off of theoretic strategies. However, it differs in that it is based off the formula behind damage, calculating how much the average damage of an attack or spell will do" (Urban Dictionary 2012). WoW players use many different sources to remain both up to date on theorycraft as well as discussing mechanics with others. Many websites are dedicated to role-specific and dungeon boss-specific theorycraft; one such website, TankSpot, deals with theory related to specifically the tanking role, but also hosts occasional discussions on many other aspects of the game. Discussions are held here about different game mechanics and ideas, with the aim to increase efficiency and proficiency when trying to survive within the game world. In the past, websites such as Elitist Jerks required theorycraft posts to be backed up with empirical proof, so that they could be peer reviewed properly, and posting was a privilege earned by players who had proven that they knew what they were talking about and not just making wild claims. While theorycraft and exploration are not required to survive in Azeroth, the knowledge gained by players doing so will aid in the overall proficiency of all players when shared in a public manner, much like scientific peer review in the real world.

Theorycraft is performed via experiments and modeling, much the same as we conduct scientific experimentation in labs. Simulations are conducted, data is analyzed, conclusions are made - and tested several more times; Nardi notes that "Technically oriented players designed quantitative experiments, performed tests, analyzed the results, published them online, and worked with one another to solve puzzles of game mechanics" (Nardi 2010:139). Warcraft Logs (Figure 26) is a website that many raiding guilds use to analyze their own data, as well as their competition's data, solving puzzles as Nardi puts it. Data is collected from the combat log – the same one we saw earlier when examining my death from falling – which records all combat events and can output these to a text file; while functionally uninterpretable on a broad scale, this text file can in turn be uploaded to the website using free software installed on a player's computer, creating the final output of complex analytics that are easily viewable by players. This is all done by players, not set up by the game's designers. In some cases a guild will "log privately" in order to hide their data from other guilds, yet have it available for their own analysis if competition is especially fierce for a first kill on a specific boss.



Figure 26. An example of a Warcraft Logs parse

There are many other tools that analyze player data like this. Another popular program that is used by power-gamers is called SimulationCraft. This is a simulation tool that imports a character's equipment and its relevant attributes, runs thousands of simulations using that data, and finally outputs its results in the form of a simulation of the most optimal damage or healing that the player can do. This allows players to benchmark their own play against one other, and creates a standard of play that high-level players require themselves to meet. This is an extremely powerful tool for power-gamers, as any number of variables can be precisely edited by a player with the appropriate technical know-how. Power-gamers who play in top raiding guilds are expected to not only know how to use these tools, but also to be able to interpret and understand the data they present. Figure 27 depicts an example of me simulations complete, the user is presented with custom information pertaining to the breakdown of certain skills or similar queries. Figure 28 depicts a possible results page, highlighting my "Active Damage Sources," which refers to specific skills and their respective damage results, as well as a plethora of other useful information for a skilled player to interpret. SimulationCraft is used not only to benchmark player performance, however, but to also discover what skills are best suited to specific situations, and to allow a player far more information than is presented within the actual game world. One could argue that it only makes sense that players would perform science in virtual worlds in the same manner as the real world, simply because that is the system to which they are most accustomed.



Figure 27. SimulationCraft code can be edited extensively





It is pertinent to philosophically define science for the purpose of this argument as subjecting hypotheses to empirical trial. Indeed, Nardi found that theorycrafting practices in *WoW* to be characteristic of critical thinking skills; however, Constance Steinkuehler and Marjee Chmiel think, as do I, that this type of knowledge-seeking constitutes what society calls science:

They [Steinkuehler and Chmiel (2006)] found that the top three "habits" used to analyze customization were "social knowledge construction," "building on others' ideas," and the "use of counterarguments." While I see these practices as characteristic of broad critical thinking skills, and not as distinctively scientific, they do suggest ways in which gamers might engage skills very much like those we are supposed to learn in school. (Nardi 2010:141)

It appears that this is the same style of discovery present in the real world, and that it applies to virtual spaces as well. Just as it is not the goal at the outset to "perform science" in real life, the outset of a player in a virtual world is not to "perform theorycraft"; instead, in both instances, it is an adaptation to surroundings – whether they be virtual or otherwise – in order to understand how the world works around them. In the real world, there are understood outcomes for many events, such as throwing a ball up in the air and having it come back down. In parallel, in a game world, the player understands that if they attack a monster it may or may not attack back, depending on specific game mechanics. Theorycraft therefore allows the player to understand exactly why and when a creature will attack back, due to the underlying mechanics of damage and the concepts of "threat generation" (damage being how hard a player can strike a creature, and threat generation being how long it takes before that creature finds them threatening and attacks them back).

Theorycraft can also be used to understand the ways in which the world does not work towards the players' favour. If something goes wrong during a boss fight, or a player has questions about a specific mechanic and how to interact with it, the logs will be referred to in order to address these questions or issues. Through doing this players are able to figure out the simple and known game mechanics – such as threat generation – but more importantly, are able to discover the unknowns. Power-gamers do not accept what happens in the game world at face-value, and instead refer to the logs to find the underlying reasons for specific things that happen to them. This leads to the phenomenon of player found "mistakes" in the code being used to defeat bosses in ways which the game developers did not intend. There is a fine line that often gets ridden which separates a solution like this from either being a "clever use of game mechanics", or an exploit that must be fixed. Because virtual worlds such as Azeroth are comprised of realities that are represented by numerical values, it is possible to use formulaic reverse engineering to understand how these numerical values interact with one another: Shortly after the release of *World of Warcraft's (WoW)* expansion *Burning Crusade* (Blizzard Entertainment, 2007), I became interested in the emergence of theorycrafting, as it helped me play 'better.' Theorycraft, a strategy designed around the mathematical analysis of *WoW*, is a discursive construct predicated on advising players how to optimally 'play' *WoW*, suggesting what equipment to wear, what talents to choose, and an order in which to cast spells. I was focused on raiding, large-scale group player versus environment play; as a mage my primary job was to do as much damage as possible. (Paul 2011)

As Paul states, theorycraft was not always something that was done in the game. While the practice has evolved and was eventually named, it encompasses a broad swath of how a player learns to adapt to circumstances and their surroundings, much like how one adapts to different environments in the real world. Without the reality afforded by the code of a virtual world, it would be impossible for a virtual world to be "real." However, because reality is afforded to virtual worlds, it allows the players within them to explore and discover the ways in which things work, much the same as how one can explore and discover the ways things work within our own world. An excellent example is James Wallis' short film *Brave Noob World* where he measures how large the world of Azeroth actually is in real world kilometers. The in-game measurement system uses feet; however, since these feet are a value that is relative to the game world, one foot in Azeroth does not equal one foot on Earth. By timing such things as how long it takes to fall from various heights in the game, and how large the game world actually was, Wallis was able to calculate the strength of gravity on Azeroth, deducing that "the force of gravity on Azeroth works out to one G, exactly the same as it is here [on Earth]. But this is a twelve kilometer sphere, it's tiny. The density works out to 5850g/cm³. For reference, the mean density of Earth is 5.5g/cm³" (Wallis 2008). Moreover, Wallis was able to do all of this through applying real-world principles of exploration, testing, and scientific methodology to a virtual reality.

While Wallis' exercise was done lightheartedly, it raises some interesting notions concerning our own understanding of virtual worlds and realities, especially in relation to the way in which distance works as a sort of resistance. As Wallis discovered, Azeroth ends up being extremely dense, most likely due to restrictions regarding how large it was feasible to code a game world for players to explore related to the technologies available in those worlds. The primary form of travel in Azeroth involves riding a large animal such as a horse, or a winged creature which can act as a taxi. Flying mounts which fly far faster than normal speeds have been introduced as well, however without technology that allows players to get across the game world relative to its size, it becomes pointless to design a game world larger than is feasibly explorable. EVE Online is an MMO created by CCP Games that takes place in outer space. The EVE universe mimics our own universe in that it appears infinite; however, this is in part an illusion in the way the game is designed. To the player, the universe seems infinite, but in actuality it is really quite small due to the way in which it is coded. The game designers were able to make it appear this way by giving players a massive amount of space to explore, more than is feasible or realistic. One such player estimates that there are currently over 5000 solar systems to visit in the EVE universe:

[There are] Currently over 5000 solar systems in known [EVE] space, and about half as many in wormhole space. It's technically possible to visit every planet in every system, but probably not practical, especially for planets in wormhole space. Some people have made adventures out of visiting every system in known space, but it took a while. To fly from one end of the galaxy to the other would take a few hours, give or take, depending on on your ship. There's always shortcuts too [sic], such as jump drives, jump portals, jump bridges, jump clones and wormholes. But as the player states, there are certain affordances in the game world that allow this type of exploration to take place. In this sense, then, virtual world sizes are limited by the virtual technologies available to denizens within them, technologies which are themselves afforded by the reality created by the code. So while it is not practical to have other full planets in the reality of *WoW*, it is practical in the *EVE* universe, where the technology of space travel makes sense in the context of the story and universe.

If theorycraft as a practice is examined rhetorically, Paul states, "the term and its practice are rhetorical texts that create a preferred, proper way to play *WoW*" (Paul 2011). Paul goes on to say that rhetoric, and by extension theorycraft, are "unique cultural practices":

Under this construction, rhetoric is "a unique cultural practice" predicated on "locating the substance of rhetorical knowledge in the creation of a situational truth" (Greene, 1998, para. 6). In the wake of Scott's work, attention moved from "how one resides in a framework of meaning and interests" to "how one articulates and uses these" (Lyne, 1998, para. 14). At stake in *WoW* are symbols ranging from specific terms to the structures that support them, including online resources forums, like Elitist Jerks, and in-game mods like damage meters (c.f. Taylor, 2008; Nardi, 2010). These objects support and advocate a way to learn about, think about, talk about and play *WoW*, predicated on 'right' and 'wrong' approaches to the game. (Paul 2011)

By constructing theorycraft as rhetoric in the virtual world of Azeroth and other such realities, and science as rhetoric in our own reality, it is obvious that these types of thinking and ways of learning transcend both imagined, real, and created worlds and realities to form a way in which problems are solved by "playing" with surroundings. Science and theorycraft are seemingly two words that mean the same thing: ways in which we test and explore our surroundings to put forth a way to live our lives and exist in planes of reality. No matter what type of world we exist within, whether it is through an avatar in a virtual space or the real world, the right and wrong ways to do things will be advocated, peer reviewed, and dismissed. Whether we call this activity science, theorycraft, or exploration is irrelevant. What is relevant, then, is the sense of discovery we chase as we attempt to understand the worlds that surround us, testing what limitations our realities afford. Members of Tyranny often use theorycraft, to tackle tough encounters in a more efficient and rapid manner. While not all power-gamers theorycraft, all members are expected to know the outcomes of other theorycrafters, and be able to use specific tools efficiently to ensure that they are playing optimally.

Conclusions

Through understanding how reality is constituted within virtual worlds such as *Azeroth*, one can begin to understand the ways by which players explore the worlds that surround them, just like we explore the world around us in this reality. It is easy to see how a concept such as theorycraft is analogous to the explorative themes and knowledge base of something such as "science." In practice, these two terms are interchangeable, yet are products of the realities in which they wish to explore. Theorycraft therefore explores a reality very different than our own, where surviving and thriving is based on sets of mathematical data, outputs which relate to how the world interacts with one's avatar. This does not diminish the fact that, in its own manner, this way of understanding the world – that is, through rhetoric and exploration – mirrors how the world is explored in our own reality. By understanding how reality may be constituted in a virtual world, we can see that were it not for the boundaries form the basis of discovery. By reaching limitations constructed by a reality, we are able to form concepts, meanings, and truths about what it

means to live in a space that has tangibility, visibility, or any other sensation which is afforded to us by said reality. In a more broad sense, the limitations present within a virtual world are informed by concepts, means, and truths in the real world. In this way, it is clear that the real will always inform the virtual, and that in turn discovery in the virtual can inform the real as well, as can be seen by modeling real-world scientific problems. The way that power-gamers play naturally extends itself to the desire of a deeper understanding of underlying game mechanics, and in this desire scientifically informed means of discovery are utilized.

CHAPTER FIVE: NARRATIVE AND "WORLDNESS" IN VIRTUAL WORLDS

Within game studies, the term "worldness" is used to denote a part of reality creation and world building integral to online environments and virtual worlds. Player investment within a game is driven by factors such as narration, story, and social interactions. Power-gamers and their interest in the game may have been at first driven by the hook that worldness provides, however through experiencing the game and playing it increasingly more competitively, a power-gamer becomes less interested with the story of the game and more interested in the underlying mechanics, which worldness typically masks. Salen and Zimmerman's theory of the immersive fallacy (Salen and Zimmerman 2003:443) is apparent here, as a power-gamer is not concerned with immersion, but rather with optimizing play. However, a game can produce worldness in many other ways aside from creating a believable reality for the player's avatar. This chapter will address the relationship between reality and worldness, including which forms worldness can take both in and outside of the game, and the complex relationship a power-gamer holds with both.

Reality in Relation to Worldness

"Worldness" is a term used by Lisbeth Klastrup to describe what makes a virtual space worldlike (Klastrup 2009). While Klastrup uses this term to describe the world of *EverQuest*, the concepts put forth apply to any virtual world, and will be extended to Azeroth in *WoW*. Taylor also uses the term in her book, *Play Between Worlds*, in relation to *Dungeons and Dragons* and MUDs: "Though originally grounded in a *D&D* gameplay style, as they [MUDs] developed they began to more explicitly orient toward a kind of virtual 'worldness' and, as such, prefigure the kinds of spaces we see in *EverQuest*-like games" (Taylor 2006:24). Worldness has three main components that create a believable reality, comprised of the aesthetic, the experience, and the social:

Taking its point of departure in a discussion of the "fictional reality" of one of the oldest massive-multiplayer gameworlds still around, this article will argue, that it is in the complex interplay between a) the aesthetics of the gameworld as both an actualised explorable and mentally imagined universe; b) the experiences and means of expression the world as a game system and tool allows and affords; c) the social interaction in and about the world, that the unique characteristics of a world, its "worldness" emerges, that which makes it different from all worlds of the same genre, both gamewise and socially. (Klastrup 2009).

To be truly invested in a game – whether by virtue of the story, or the people (real or virtual) that one plays with – one must have a sense of worldness. The stronger the feeling of worldness, the more strongly attached one will feel to the game's reality. Worldness can be viewed as both a sense of the world which exists within the confines of the virtual environment, as well as modes of extension that bring the virtual world to the real world. This includes forums, "IRL" (or "in real life") meet-ups, and community websites.

Not all games possess fully realized worlds, however, and there are varying degrees of worldness. Because of this, reality within games is dependent on how world-like the game world feels; for example, a 2D game like *Super Mario World* has less worldness than a game like *WoW*. However, many games have no worldness whatsoever, and no real story at all; a game such as *Tetris* has no narrative or dialogue, no relation to any sort of world, and thus has no worldness. This is a design choice and is dictated by genre, storytelling methods, and the allowances and limitations imposed on players' choices within the game. A fully realized virtual world – in this case *WoW* – is a more

believable space than one within a game like *Super Mario World*, and as such it has more factors that make it a believable reality. This reality is integral to the player's understanding of the virtual world: the more complex the world, the more complex the systems behind it are, and by its very nature requires much more learning on the part of the player.

Worldness consists of several dimensions; lacking any of which will result in a shallow and unbelievable world. The first dimension is the aesthetic world picture, while the second is the "performative dimension" in which the player performs actions and overcomes resistance to the world. Nardi states that "video games afford rich stimulation to visual sensibilities while at the same time developing complex spaces of performance with opportunities for mastery and active participation" (Nardi 2010:52). So, reality is constituted in the merging of the performative and the aesthetic, from which the world becomes believable and world-like as players are able to perform within the graphicallygenerated world that has been created for them. There is a clear division between the aesthetic and the performative: the performative dimension is an invisible world of code, numbers, and statistics, while the aesthetic is prominent and decoupled from the narrative. These numbers and statistics are used by the computer to represent what the player is doing, but this is masked to the player and represented instead through the aesthetic. The power-gamer aims to understand the performative layer by peeling back the aesthetic; however, the aesthetic still serves as the platform on which the player resides. Using Peircean terminology, reality is constituted within secondness, however worldness does not emerge until first, second, and thirdness are combined. Secondness alone may allow a player to feel that the world is reacting to them, and that they are in a

real space; however, the world does not become believable until the aesthetic (firstness) and the thirdness of other players is combined into one cohesive whole.

Power-gamers straddle a strange gap in their virtual worlds, acting both as participants who actively contribute to the worldness of the game via participation within it, but also as participants who actively contribute to the unpacking of that very same worldness they help to build, thus potentially making it less world-like in turn. A powergamer may have originally been drawn to the game by the story, the art, or their friends who also play it, but as they evolve their playstyle into one of a power-gamer their immersion in the story becomes irrelevant, and unpacking how the game works becomes the goal. It is important to remember that power-gamers are still just players of the game, however they choose to take their play in a direction that involves picking apart the game world, as opposed to strengthening it via lore or role-play. This does not mean that power-gamers are entirely uninterested in the story; such a personal choice varies from player to player. In Tyranny, many players will often not understand the reasoning as to why they are killing the villains they are killing, and do so just because they want to participate in the challenge. However, others are what are referred to as "lore buffs", "lore geeks", or "lore nerds," who aim to know every intricate detail of the game, and go so far as to read the novels and fan fiction that are external to the game itself. Both of these are valid ways to play, and emphasize that there are varying degrees of involvedness, and varying degrees of power-gaming as well.

Narrative via Game Design

While there are many different styles of storytelling within games, narrative plays a key role in building worldness. As a trend, power-gamers typically do not hold the

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same reverence for narrative as other gamers who may buy the game specifically for the story. This is seen in the competitive *StarCraft II* scene, where professional players bought the game primarily to play competitively online, and when the game was first released went so far as to forgo the campaign mode in order to play against others. Most players of the *StarCraft* series start playing the games for the storyline, and the competitive play comes secondary. The same phenomenon can be seen in WoW, where in order to be the first person on the server to hit the maximum level, players will speed through the quest dialogue, skipping most of the story, in order to finish quests faster. The lore of the Warcraft series started far before WoW in the game Warcraft: Orcs and Humans, and there are many "lore buffs" who are extremely interested in the story. Power-gamers ignore most of this story, and opt to get to the end-game as quickly as possible. Tyranny members when leveling after a new expansion pack releases are given a timeframe in which they must reach maximum level so that the team is able to start raiding immediately. There are even specific mods that will automatically turn in quests, which eliminates extra button clicks. However, despite the fact that many power-gamers appear uninterested, narrative is often a necessary platform for power-gaming to take place at all. For example, in *WoW*, the "raid" bosses that players in power-gaming guilds strive to defeat are often key figures in the overall narrative experience of the game. While these bosses can be defeated on varying difficulties, power-gamers in guilds such as Tyranny aim to kill these bosses on the hardest mode; however, without narrative these bosses would not exist. Furthermore, many of these enemies drop powerful lore-related items, which are often also highly aesthetically pleasing, driving players to desire these

items not only due to their powerful stats, but also because they want to look powerful themselves, or to own an item that is steeped in lore.

In order for us to explore narrative, we must first understand how games are designed and the impact this has on the storytelling within them. Jenkins first states that "not all games tell stories," and indeed, games do not necessitate having any sort of background or narrative within them inherently (Jenkins 2004:2). Greg Costikyan states that in order for a "thing" to become a "game" there must be decision making:

What makes a *thing* into a *game* is the need to make decisions. Consider *Chess:* It has few of the aspects that make games appealing – no simulation elements, no roleplaying, and damn little color. What it's got is the need to make decisions. The rules are tightly constrained, the objectives clear, and victory requires you to think several moves ahead. Excellence in decision making is what brings success. (Costikyan 2002:11)

Chess is an interesting example here, because I would argue that it has no inherent worldness, yet it represents a battlefield, unlike other games which may not represent anything but what they are, a puzzle. However, while chess is representative of a battle, and perhaps one can even imagine that the knight piece is an actual knight riding a horse, it becomes difficult to see oneself in that battle – the view is overhead, the moves constrained by strict rules – and it requires quite a bit of imagination to actually visualize oneself on that battlefield. While Chess is most definitely a game, and a very popular and competitive one at that, its lack of traditional elements of worldness is what separates it from being a world as well a game, despite the fact that it is representative of realistic situation. Similarly, games like *Tetris* or *Snake* do not have a story; they are merely puzzles with little to no context. However, it is important to realize that not all games need to have a story, or worldness. It would not make sense for *Tetris* to have a

backstory, and furthermore, its attractiveness as a game is due at least in part to its simplicity and ease of play. That being said, many games do have story elements, or try to build believable worlds, and this necessitates tailoring the design of the game toward these needs, as one "cannot simply throw together a bunch of different game elements, and expect them to cohere; you must consciously set out to decide what kind of experiences you want to impart to your players, and create systems that enable those experiences" (Costikyan 2002:20).

For a game to have worldness, it is first necessary for that game to have a narrative of some sort, regardless of whether the creation of that narrative is left up to the player (open world), or scripted as seen in many games. Costikyan argues that a player's free will, even if it is an illusion, must exist to some degree in order for the act of playing to hold meaning:

Games must provide at least the illusion of free will to the player; players must feel that they have freedom of action - not absolute freedom, but freedom within the structure of the system. The structure constrains what they can do, but they must feel they have options; if not, they are not actively engaged. Rather, they are merely passive recipients of the experience. If they are constrained to a linear path of events, unchangeable in order, they'll feel they're being railroaded through the game, that nothing they do has any impact, that they are not playing in any meaningful sense. (Costikyan 2007)

Second, worldness relies on spatial and environmental storytelling. Spatiality is a very important aspect of both building worldness as well as narrative, as proposed by Jenkins: "Specifically, I want to introduce an important third term into this discussion spatiality - and argue for an understanding of game designers less as storytellers and more as narrative architects" (Jenkins, 2004:3). In order for a game to tell a story the player must follow the rules set out within the game world; this requires a gamer to first understand

the limitations of the world. This teaching can be done in a multitude of ways, each affecting immersion, game-play, narrative, and overall worldness to different degrees. One way games teach players how to act within their worlds is by embedding the lessons into the narrative, in a type of learning which is often subtle and masked by storytelling. In a game like *Halo II* by Bungie, the player is instructed to look at a set of lights in order to "calibrate their robotic suit"; however, the underlying reason this is done is so that the player learns to use the game controller in a meaningful way. This learning is embedded into the story so as not to break out of the narrative plot of the game, allowing the player to build a sense of the world of *Halo* through the knowledge that he or she is operating out of a specialized suit. Another way games teach is through the aforementioned interface. Teaching through interfaces can come in many forms, including textual prompts, visual prompts, or "tips," amongst others. In WoW, I am prompted with interface tutorials as soon as I first log in on a new avatar (Figure 29). This helps the player get acquainted with both the game world as well as the extensive interface. If a player desires greater immersion – or simply fewer interruptions – they can turn these tips off. Finally, players may learn about how the game world functions and where they fit into it by reading external sources outside of the actual game. These can come in various forms, and historically often came packaged as something like a game manual. However, with the increase in popularity of digital copies of games, most players are more familiar now with utilizing online guides, fan websites, or other media forms such as YouTube video guides, in order to prepare themselves for their virtual journeys. Learning how to survive in a media such as a game is something that sets games apart as a media form from others such as text or film. One does not need to be prompted to learn the rules of a

film; instead, the content is observed, and through this observation the narrative structure should make relative sense (or not, I suppose, depending on the filmmaker's intentions). You do not need to travel through the film learning how to jump, interact, or otherwise control the environment because you are a passive consumer of the media. Similarly, a novel's protagonists already know the rules of the world in which they exist (typically), and the narration paints the picture you see in your imagination; there is no truly right or wrong way to imagine the world. These types of media have the "instructions" implicitly within their forms, while games do not. Certainly, the player is the protagonist in the game; however, this is accomplished through an avatar, and while the avatar is assumed to know the rules, the controlling body (player) does not. Thus a learning curve is needed to start enjoying and immersing oneself within games as a media form. In this sense, game designer has to be a "narrative architect" (Jenkins 2004), as simply telling the story would not work in the contextual reality in which the player is set, and in which they are lost and new. The designer must create a fully visualized world, as opposed to a subjective imagined reality that something like a book might create. While movies do create fully realized visual worlds, they do so in a limited frame, both figuratively and literally. Games today, however, let players explore, and as such the narrative must make sense while allowing the player freedom of choice.



Figure 29. A tip window shown upon entering the game world

In addition to acting as an integral part of worldness, exploration is also something that narrative must embrace and sustain. Players are seemingly just as interested in exploring the worlds presented as they are in the narratives held within. Quite often, it is the exploration which is the real and main goal in these worlds, the fun derived from problem solving, and not always solely the story itself:

The early Nintendo games have simple narrative hooks - rescue Princess Toadstool - but what gamers found astonishing when they first played them were their complex and imaginative graphic realms, which were so much more sophisticated than the simple grids that *Pong* or *Pac-Man* had offered us a decade earlier. (Jenkins 2004:4)

Jenkins states that "games fit within a much older tradition of spatial stories, which have often taken the form of hero's odysseys, quest myths, or travel narratives" (Jenkins 2004:4). Because games are spatial storytellers, they often must fall into the style of the age-old "hero's journey," similar to that of the *Lord of the Rings*: developing characters throughout and by means of a physical journey. Much like Frodo and Bilbo become very different characters by the end of Tolkien's *Lord of the Rings* and *The Hobbit* respectively, main character archetypes in games use this same trope to give players a fulfilling sense of accomplishment through player-driven story and increasingly powerful player gains, causing players to change dramatically and aesthetically as they progress through the narrative. This is just one way that games are able to develop character and narrative through space and time; according to Jenkins, there are four parts to the typology of spatial storytelling, including "evocative spaces," "enacting stories," "embedded narrative," and "emergent narrative" (Jenkins 2004:6-11).

Evocative Spaces use the space of the game itself to evoke familiar stories, drawing on preexisting narrative and triggering this with the space (Jenkins 2004:6). A good example of this would be *Lord of the Rings Online (LOTRO)* which uses preexisting narrative, both from the series of books by J.R.R. Tolkien as well as the collection of movies directed by Peter Jackson in order to create the virtual world into which the player is placed. The scenery throughout the game is representative of this established universe, and attempts to evoke either textual descriptions in the book or visual scenes from the movies. Similarly, *WoW's* world was built off of the established environments found in the *Warcraft, Warcraft II*, and *Warcraft III* games (titled the "Warcraft Universe"), and many of the locations that were familiar to players of those games are also available to explore within *WoW*.

Enacted stories allow the player to assume a pivotal role in the storytelling, "for example, to grab a lightsabre and dispatch Darth Maul in the case of a *Star Wars* game" (Jenkins 2004:6). In *WoW*, when players defeat an important enemy in the story,

cutscenes are often used, allowing the player to witness the story-related events that transpire afterwards "as they occur" via a short cinematic; in some cases, even the player's avatar is also shown in the cut-scene, putting them directly into the narrative. These cutscenes take the player's view away from normal gameplay and show a short film or movie, sometimes using the in-game graphics, and sometimes using special cinematics. My guild recently defeated one of the most important enemies to-date in *WoW*, the great demon Archimonde. Immediately upon defeating him, the game launched a cut-scene for every member that was present, and allowed us to witness the conclusion to the story that had been building since the start of the expansion pack. Almost all players – even those who normally could not care less for lore – were so immersed in this cinematic that when someone tried to talk on voice chat they found themselves immediately and violently shushed, as they were interrupting the conclusion to the game. Throughout important encounters in WoW, main characters from the lore assist the players, and often say or do specific things during these encounters which further the story. On the Ragnaros encounter in the *Cataclysm* expansion pack, an NPC prevents the elemental lord Ragnaros from escaping, allowing the players to kill him. This puts the players in a pivotal role in terms of the lore, and uses enacted storytelling to do so.

Embedded narratives occur when lore is found within a game, and this lore is used to tell the story, as opposed to a narrator or some other device. A relevant example of this would be *The Talos Principle* by Croteam, where the player must read notes left on computer terminals around the game world in order to make sense of what events actually transpired in the past. Although a player can progress easily through the game without reading these notes, they will miss much of the story, and key decisions that they
make will lack the contextualizing information that could otherwise be acquired, thus lessening the overall impact of the game's message. This sort of narrative is not forced upon the player, but rather it rewards the player-driven exploration and discovery by those who search it out to make sense of what is going on within the game world. While the plot of *The Talos Principle* consists of mainly puzzle solving, and indeed while this is all the player is required to do, the underlying story is uncovered through the terminals which must be both found, and then read. Jenkins makes a distinction between the plot and the story, stating:

Russian formalist critics make a useful distinction between plot (or Syuzhet) which refers to, in Kristen Thompson's terms, "the structured set of all causal events as we see and hear them presented in the film itself," and story (or fabula), which refers to the viewer's mental construction of the chronology of those events. (Jenkins 2004:9).

The story in the case of *The Talos Principle* would be the story that the player has pieced together through the terminals, and one that they had to seek out, while the plot is the more broad structure of the game itself. It is possible to complete the game, following the plot, yet not fully understanding the story in games where embedded narrative is used.

Emergent narratives take place through the gameplay itself, letting the player dictate how the story unfolds, and are most commonly found in open-ended or open world games (Jenkins 2004:9). A game such as *ArcheAge* has room for emergent narrative, as it is possible to forgo any of the actual story and simply build a house and farm a field, thus creating your own story for your avatar; roleplaying within games also falls into the category of emergent narrative. My time in *ArcheAge* was primarily spent searching for land to build my farmhouse. I needed a farmhouse because I wanted a bigger garden to plant trees, which I needed for wood to build a ship. When I could not find a plot of land to plant my own trees, my character became a villain, and I spent countless hours stealing other player's lumber instead. Eventually, through a combination of farming and petty theft, I acquired enough materials for my ship. The narrative that played out for my avatar would not have occurred in a scripted plot environment; it emerged due almost entirely to the open nature of the game, which allowed me to choose how I went about my actions. Other games that use this sort of emergent narrative are *Minecraft* by Mojang and the popular open-world survival genre of which many games have recently released.

"Worldness" and World Creation

As discussed, worldness is how world-like a virtual world feels to the player, and it is an extremely important aspect for a game designer to consider, as the more worldlike that they can make the world, the more invested a player may become. Worldness can also apply outside of the game world as well; for example, extensions of the game can be seen in online discussion forums dedicated to discussing the game within the community of players. Similarly, sites for "guilds" or teams are abundant, and can aid in recruiting new like-minded members as well as provide an outlet for discussion:

Finally, various modes of communication – both online and off – can provide a richness of experience and interview data. Users quite often create Web pages for themselves (either as their avatar or their off-line identity), and looking at their sites can provide new information and insight into your participant's lives. There are also quite often community Web pages (for example, one of the worlds I am in has several "newspapers" run by community members, and keeping up with them can be invaluable in tracing the life of the world. (Taylor 1999:445)

In the case of *WoW*, the visuals of the game world draw you in, and the game's beginner starting areas are primarily story-driven. However, the game later evolves into a type of worldness that relies heavily on team play and other real players (not NPCs). These

interactions, along with the story and gameplay mechanics present in the game, serve to form a virtual world with its own rules, boundaries, and lifestyles. When we construct our own realities, we are at the whim of our imaginations, those who we play with or against, and ultimately, the constraints set forth by the designers.

Viewing user-taken screenshots is an interesting way to get an idea of what other players in other games find important. By conceptualizing screenshots as small windows into a player's interests and priorities, we gain insight into what gives a virtual world its worldness according to the players that play them. Some examples from various games can be seen in Figure 30-32:



Figure 30. A screenshot from Guild Wars 2

Figure 30 was chosen to showcase the expansive amount of character customization available in the game *Guild Wars 2*. This type of customization adds a sense of both personalization as well as individuality, and helps to build a sense of overall worldness.



Figure 31. A screenshot of Tera

Alternatively Figure 31 of *Tera* was chosen simply for the "natural" beauty of the scenery.



Figure 32. An orc warrior in WoW

In Figure 32, I found the imagery in this area of *WoW* quite striking and decided to take a scenic picture; I posed my character much as I would pose in front of beautiful or striking scenery in real life.

All of these screenshots allow us to visualize worldness. Recordings of what other players find interesting or beautiful allows insight into what makes the game they are playing world-like. Eric Hayot and Edward Wesp state that "a strictly representational reading will be unable to account, for instance, for the ways in which players use and create space in the game-world in ways that were not written into the original structure of the game-world itself" (Hayot and Wesp 2009). Screenshots are rarely taken of just the world, and more typically contain other players (Figure 33). This is because it is what the players are doing in the screenshots, and how they choose to interact with the world around them, that gives the game a sense of worldness – not necessarily how realistic the representation of a tree is.



Figure 33. A player takes a "selfie" picture with another friend in WoW

External Narrative and Community Driven Worldness

Worldness extends past the typical borders of virtual worlds via community based websites, forums, videos – that is, anything that discusses the game outside of the world's boundaries. By extending these virtual boundaries, players are able to feel connected and drawn to the world. The most typical way worldness manifests outside of games is through fan fiction and lore, in what Jenkins would refer to as embedded narrative (Jenkins 2004:9). These embedded narratives add to the game story without actually being located inside the game world, and add depth for the player to explore outside of the game's coded space. While not mandatory, embedded narratives draw the player in to the game world further, despite being an entity that is entirely separate and outside of the game world itself:

The experience of playing games can never be simply reduced to the experience of a story. Many other factors that have little or nothing to do with storytelling per se contribute to the development of great games and we need to significantly broaden our critical vocabulary for talking about games to deal more fully with those other topics. Here, the ludologist's insistence that game scholars focus more attention on the mechanics of game play seems totally in order. (Jenkins 2004:3).

As Jenkins states, while the story may help shape worldness, it does not define it. In an MMO such as *WoW* there is a loose back story, which is then built up by thousands of optional quests (missions) that a character completes in order to progress through the game. But these quests are not mandatory; the player can survive or even thrive and not know a thing about the world or story. What makes a game like this have worldness is the virtual world itself, and how it reacts when a person plays within it. Story elements help with immersion, but the graphics of the game, player created character depth, how one interacts with the world, and its overarching technical limitations all help to create a

sense of worldness. Furthermore, the most important aspect of worldness in an MMO is the gaming community that you play with and encounter within: these communities help foster a sense of camaraderie and further the feeling that you are in an ever-changing and persistent world, surrounded by actual people. They also act as a way for the game outside of the virtual world to exist and have meaning for the players. It is possible to "play" or experience aspects of games without actually playing within them in this way:

In *World of Warcraft*, much of the pleasure of questing or running dungeons lay in devising the particular means by which to accomplish a quest or defeat a mob. The means themselves were of interest to the player, not merely the experience points. At the same time, the completion of a quest or the conquest of a mob were moments of pleasure. Aesthetic experience entails a temporal flow of actions that are valued in themselves, ending in a satisfying "consummation. (Nardi 2010:45).

As Nardi states, much of the satisfaction and draw of a game like *WoW* is not the reward of experience points or loot, but the actions, be they social interactions or actions taken in the virtual world.

The worldness of Azeroth has been enhanced by not only playing the game, but also the community websites that exist outside of the game as well. This is what Ito et al. refer to as "augmented game play": a "genre of gaming" which involves "engagement with the wide range of secondary productions that are part of the knowledge networks surrounding game play" (Ito et al. 2010:220). *WoW* is, of course, immensely popular, and over its lifespan of ten years many fan – and community – driven sites have fostered content exclusively about the game world with the intent of educating players, blogging, or discussing topics related to groups of players or guilds. Similar to these community websites, YouTube and other video-centric sites such as WarcraftMovies offer a huge repertoire of player-made videos of the games that they play, which extends worldness

outside of the virtual world. These videos can be fictional stories that players enact, recordings of impressive feats of strength, or just footage of play in the world itself. Databases, wikis, and discussion forums allow player discourse when not in the virtual world, which is important as it fosters a community about the game while not having to be present within the world itself. This allows a much more consistent feeling of a persistent universe that one can be involved in at any time. Similarly, the user-made videos allow players to tell stories within the game that use a fictional universe to display more fiction. These videos use the game's graphical engine to display a story, which are sometimes not set within the game universe, and simply use the game's art to create something new. These narratives add to the worldness as well, specifically the ones that tell stories about the game using the game's own graphical affordances. Narratives such as this are referred to as "machinima," and they give a sense that the world is an expansive alternate reality and that these characters could be enacting these stories parallel to your own character's story. Henry Lowood states that these "machinima" narratives provide a way to extend game-play outside of the game, and increase a sense of overall worldness and a more immersive experience for the player: "The growth of machinima has provided an outlet for players to work in a story-driven medium. Machinima also extends their engagement with games that they enjoy playing as well as the storyworlds that can provide a narrative context for their gameplay" (Lowood 2009:3).

Power-Gaming, Narrative, and Worldness

While narrative may be an extremely important aspect of world building for the average player, the goal of a power-gamer is not to necessarily further the narrative at all.

If we examine *WoW*, we will see that Blizzard Entertainment provides constant updates to the story via content which is "patched" in to the game. A "patch" refers to content that is globally downloaded and applied to all player's games, often automatically, when developers wish to make changes to the game. While patch content can affect any aspect of the game – indeed the "S.E.L.F.I.E Camera" used to take the screenshot in Figure 33 was implemented in a patch – one of the most common aspects affected is raiding. Power-gamers in *WoW* are not necessarily interested in the story aspects of this raiding, but are interested in the new challenges that come with it. Players in "progression" guilds aim to defeat the new challenges faster than other teams in their regions, as well as the world. Even after a challenge has been overcome, these teams continue to defeat them week after week in order to obtain the best possible items to equip on their avatars. This has spawned global competition and sites such as WoWProgress which rank guilds (teams) based on how early into a patch they were able to first defeat an encounter (Figure 34). These fights are often highly technical and tightly choreographed, and this results in only around 1% of the population of Azeroth (which numbers currently 7 million, but at its peak was nearly 12 million) in ever defeating the hardest difficulties of bosses at all. Tyranny has been ranked as highly as 19th on the North American servers, which is in the top 0.1% of all players. This team has many players who like to read about the story and lore and many who do not; however, all of Tyranny's players aim to play the game competitively as a team sport, instead of as a cooperative narrative. Underlying these extremely comprehensive raid encounters is a basic storyline of "good vs. bad," and substantial plot and lore has been created:

World of Warcraft uses a range of mythic structures to lend coherency and stylistic character to the game's design. These can provide a type of pattern (or

archetype) that Raph Koster (2005) claimed is core to the pleasure of playing games. The primary and highly recognizable mythic pattern that informs and structures the game is the epic hero quest format, wherein various forces work to help and hinder the hero-player on route to achieving particular goals. (Krzywinska 2006:385)

While power-gamers are often at least familiar with and have varying degrees of investment in the story, they do not play for this aspect like most players do. Instead, fun is derived by defeating challenging encounters, and – more importantly – in the competition of doing so. This type of gameplay is made possible by the narrative driving the story forward, the players who aim to do the hardest content nevertheless care less for the narrative and more for the challenge and competition.

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	Guild	Realm	Progress	
		EU-Twisting Nether	<u>13/13 (M)</u>	guild
		EU-Lightning's Blade	13/13 (M)	Comments: 29
		<u>EU (RU)-Ревуший фьорд</u>	13/13 (M)	
		EU (FR)-Sargeras	13/13 (M)	Abusing realm transfers - 2
		EU-Kazzak	13/13 (M)	Kernel 7 months ago
		<u>US-Sargeras</u>	12/13 (M)	In order to prevent unfair competition using BMAH, we have to introduce additional rule: Guilds that abuse transfer to other realms to buy more BMAH items will be disqualified
		EU-Tarren Mill	12/13 (M)	
8		<u>CN-Isillien</u>	12/13 (M)	
		<u>KR-Azshara</u>	12/13 (M)	
		<u>US-Illidan</u>	12/13 (M)	
		<u>ЕU (RU)-Гордунни</u>	12/13 (M)	
		<u>EU (RU)-Ревущий фьорд</u>	12/13 (M)	This rule will be effective starting from
		<u>CN-Dark Iron</u>	12/13 (M)	the next raid.
		<u>KR-Azshara</u>	12/13 (M)	Updated - added clarification.
		<u>KR-Azshara</u>	12/13 (M)	read more Comments: 32
		<u>OC-Barthilas</u>	12/13 (M)	
		EU-Kazzak	12/13 (M)	WoWProgress and WoD: Current State
	清水星辰	<u>CN-Silver Hand</u>	12/13 (M)	Kernel 7 months ago
		EU-Draenor	12/13 (M)	
		EU-Sylvanas	12/13 (M)	WoWProgress now updates all the WoD data:
			s previous next >	- Guild Rankings for WoD Currently we support 3 modes: Normal,

Figure 34. WoWProgress homepage

While power-gamers may not necessarily care about the stories presented in their games, they still help shape worldness in a few interesting ways. By peeling back the aesthetic layer in attempts to unpack and understand the performative, the power-gamer unpacks worldness itself. When a power-gamer theorycrafts, they are striving to

understand the underlying mechanics of how the game works, and in doing so they often shatter the illusion that they are living in a believable world, reducing the game to numbers – including, sometimes, numbers not even the developers of the game intended. In this sense, then, power-gamers create a space for themselves that exists both in and outside of the virtual world, allowing them to see both where most players can only see the world itself. This sort of existence can be seen as ultra-mediated, where powergamers purposefully expose that which mediates the game world and our own reality, and by doing so enhance their play. However, this can also help to enhance worldness, because in this search for information, theorycraft is shared and discussed within communities, and through these communities worldness is enhanced through thirdness (other players). In extending the world to these discussions, worldness is both taken apart and enhanced.

Conclusions

Narrative not only drives story in games, but also acts an important ingredient for worldness to occur. Through both narrative and sources external to the game, worldness is built. Power-gamers, while not necessarily concerned with narrative, can still add to the sense of worldness through Peircean thirdness. Worldness is a combination of the aesthetic and the performative; while power-gamers are primarily concerned with the performative and the underlying mechanics of the game, and paradoxically take apart what makes a game a believable world in the first place, they still add to worldness through the community that surrounds what they do, and by being entities within the world itself. Power-gamers certainly seem to care a lot more about the game than most, to the point of taking it "too seriously" according to more casual players. Player-built communities are integral to the way in which worldness is felt in virtual worlds, and while power-gamers often play together to achieve their own goals, narrative and worldness still affect them in meaningful ways. Without narrative, many power-gaming activities would not be possible, thus erasing the power-gaming communities and removing a large driving force behind in-game interaction and worldness as a whole. Furthermore, the act of peeling back the aesthetic layer of a virtually constructed reality has implications beyond gaming. By examining the inner workings of games, powergamers reveal that not only are games coded, but much of the real "non-game" world is coded as well, and therefore manipulable. One example would be high-frequency trading, where modeling, economics, and science are used to try to predict outcomes and prices. Because much of this occurs in the virtual, these types of activities are very similar to power-gaming in relation to the desire to understand the layers that are masked by the aesthetic; the term power-gaming may be applicable to more than just video gamers.

CHAPTER SIX: CONCLUDING – POWER-GAMERS AS A NEO-LIBERAL WORKFORCE

Regardless of the game or genre, power-gaming as a hobby is inherently technical. The combination of skill and the use of technology has been discussed at length throughout this thesis, in relation to technical cultures both in and outside of gaming. The historic association of skill with technical expertise is notably very similar to early depictions of skilled labour in the American West (Quam-Wickham 1999) as well as clubs and hobbyists such as Ham Radio (Haring 2007) and The Fischer Body Craftsman's Guild (Oldenziel 1997). This association is not only one of masculinity, but also one of labour and the workplace. In this regard power-gaming is no different, as the association of a technical hobby (power-gaming) appears to outsiders not as play, but as labour. Furthermore, a power-gamer, while not inherently skilled, measures their skill against others, and in doing so forms a sort of social rank or hierarchy where the more skilled players of the game are at the top. The drive for efficiency and self-monitoring in the game is reminiscent of factory discipline and "Taylorism," where players monitor each other to insure quality of play and thus output.

In this way, a power-gamer, similar to a skilled worker, is viewed by the community not as a person, but as a collection of skills that can be utilized for specific tasks. This is most certainly the case in Tyranny, where players are expected to play alternate classes to their "main" characters in order to expand the amount of skills available to the team without having to recruit additional people. Players are required to have flexible skill sets in order to achieve more with the same amount of actual people. Each player should be available to play at least two classes at a skilled level, so that the

guild can have a wider ability to do fights that require very specific skillsets from specific classes in the game. This allows the team to utilize these classes in ways such as "splitrun farming," wherein the players of the team use their second avatar to funnel items to specific "main" avatars at the start of new content, and in doing so are able to overcome challenges earlier and more easily. Tyranny only runs two "split-farming" groups; however, the highest level guilds in the world have been known to run as many as five, essentially quintupling their skilled labour force while keeping the same amount of players on the roster. To put this in perspective, a more relaxed group of players would need literally five times the amount of players on the roster to achieve similar results, which is infeasible. Similarly, players who are not optimal for a specific encounter will have to sit out, while other players who are more suited for the specific set of challenges being pursued will be slotted in. Power-gaming guilds such as Tyranny specifically recruit players so that they can cover every possible situation that could be encountered for a specific raid encounter, and in doing so the roster becomes a collection of necessary skillsets as opposed to a collection of players.

Viewing players as "bundles of skills" (Urciuoli 2008:211), or human capital is very similar to how a neoliberal capitalist firm would view workers, and in many ways power-gaming mirrors this structure. Bonnie Urciuoli states:

The notion of "worker-self-as-skills-bundle" (not only is the worker's labor power a commodity but the worker's very person is also defined by the summation of commodifiable bits) is a social construction cumulatively produced by years of skills discourses in business and education. These skills discourses operate in and index (indicate the existence of) the history and conditions of capitalist production, particularly since the 1970s, variously called "post-Fordism," "late capitalism," "flexible accumulation," and, most relevant to this study, "neoliberalism," in which all possible forms of sociality and being are treated as market exchanges (Harvey 2005). (Urciuoli 2008:211-212)

Power-gaming guilds in *WoW* are typically run as top-down operations, consisting of ranks that denote power. At the top is the "Guild Master," usually followed by the "Officers," and then the other general players in the guild. In Tyranny, the raiding ranks are as follows, in descending order from highest rank to lowest: Guild Master, Officer, Raid Assistant, Core Raider, Trial, Raiding Alt (alternate character). As Braverman notes, this mirrors the organization of 19th century corporations, when "workplaces were conceptualized as top-down models of efficiency and workers imagined in terms of how their task management was best engineered by expert managers, skills were conceptualized as parts of tasks over which workers had decreasing control" (Urciuoli 2008:212). In this model, the Guild Master holds the most power, deciding the direction of the group and delegating tasks to officers and members. The Officers are often consulted for these decisions, and are thus granted a degree of input, however they do not hold as much power as the Guild Master. Core Raiders are expected to listen to the directions that these leadership ranks assign, and in doing so mirror a top-down business model.

While power-gamers in this sense are model capitalist workers, I doubt very much that any player would see themselves as such; I certainly do not identify as a labourer while playing games. Even though everything that a power-gamer does is related to efficiency (so that the entire process of competitive gaming is streamlined, much like an industrial labour process) the fact that it is done by choice, not compulsion, is what makes it "not work." In this way, then, it is not what a player does or how they do it that ultimately makes something work – though the "grind" of playing this way certainly resembles industrial labour – but rather why they do it that makes it "play" and fun. This shows that although there are most definitely conventional avenues of "having fun," such as going to an amusement park, fun is not inherently tied to any specific activity, but instead to why one is doing said activity. Fun and "play" have always been inherently linked, however a "player" can be both a professional career as well as an avenue of fun. This is seen in professional sports, where "players" are paid to play the game. Players of games, however, do not view logging into games as work; not even the power-gamers, many of whom – while still ultimately players – are also technically professionals. When asked what they are doing, I have never heard players respond "going to work," but rather that they are "playing World of Warcraft." It is obvious that even though many activities involved in power-gaming mimic work, and the organization of players in power-gaming is reminiscent of a factory or corporation, fun is still derived from these activities because players are choosing to participate in them, not because they are compulsory. Unlike real-world jobs, power-gaming is constrained to worlds where emphasis is put on linear progression: a player feels accomplished because they were able to defeat a challenge, and in doing so wants to defeat the next challenge, like climbing a rung on a ladder. Power-gaming evolved out of the desire to climb this ladder to the top, and because this was specifically challenging, players became increasingly selforganized, combining their efforts to surpass their peers. The scope of WoW's raiding evolved from one of local on-server competition to one of cutthroat global competition; whereas guilds once competed primarily for "server first" kills of bosses in the past, they now compete for "US/EU First" and "World First" kills instead. In some ways, this can be seen as a fairly linear evolution as interest in the game grew, and player-made tools

evolved. Furthermore, as a player in the short film *Avatar Days* (2010) points out, "in real life you can work as hard as you want, but you're not always going to get the recognition or reward that you actually deserve." In *WoW*, however, the recognition and rewards of defeating the toughest enemies are awarded in a multitude of enticing – and moreover, visible – ways (equipment, ranks, etc.), and it is this recognition that constitutes one of the main reasons many players choose to power-game.

It has become necessary to reorient not only how fun is defined, but also how we view what fun is, and what constitutes labour. While power-gaming on one level mirrors the basic premises of a specifically neoliberal capitalist workforce, and seems like a form of hybrid "playbour," the distinctive characteristic of what separates labour from play lies instead in the distinct motivations – the "why" – rather than the apparently similar "how". It is not what you do or how you do it, but why you do it that differentiates leisure from work. To an outsider, power-gaming as a collection of practices may seem counter-intuitive; it must seem that power-gamers play in a way that takes all the "fun" out of the game. It is only upon close examination of what constitutes power-gaming, and why players do what they do, that it becomes apparent that power-gaming is just as fun subjectively to these players as more conventional definitions of fun are to others. Different ways of playing, and the ability to choose whether to play at all, are what keep games relegated to the land of fun, while work will always remain an act of labour.

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