A GRANDIOSE REALITY: ADDICTION AND TECHNICAL COMMUNICATION IN THE MASSIVELY MULTIPLAYER ONLINE ROLE PLAYING GAME

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A GRANDIOSE REALITY: ADDICTION AND TECHNICAL COMMUNICATION IN THE MASSIVELY MULTIPLAYER ONLINE ROLE PLAYING GAME

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I. INTRODUCTION

World of Warcraft (WoW), a Massively Multiplayer Online Role Playing Game (MMORPG), produced and distributed by Blizzard Entertainment that has been a part of the online video game playing community since 2004, has attracted enough attention to enter the United States' media consciousness over the past few years. Even CBS' popular comedy, *The Big Bang Theory*, a show that chronicles a group of genius and unashamedly nerdy university professors through hilariously awkward life and social situations, has addressed WoW and the serious notion of online gaming addiction in two notable episodes.

"The Barbarian Sublimation" episode aired on October 6, 2008 and centers on theoretical physicist Dr. Sheldon Cooper introducing the "normal" Penny, waitress and budding actress, to an MMORPG based on "Conan the Barbarian." Penny is somewhat intrigued about the game and quickly becomes addicted, much to the dismay of Sheldon and his male cronies. As the episode unfolds, Penny reveals that the reason she became so involved with the online video game is because she felt isolated and frustrated in her real life. Penny has had no success finding a job as an actress, has not had any romantic encounters in months, and has not received a raise at her job as a waitress. The men

attempt to reach her by joining the game and even set her up with an online date, but to no avail. Comically, Penny only "snaps out" of her addiction when she agrees to go on a "date" with one of Sheldon's friends who approached her in the game, which is something she would never do in real life. "The Barbarian Sublimation" addresses addiction, and how it can be tied to the appeal of a virtual world, especially when the player's real life is distressing.

"The Zarnecki Incursion" episode addresses WoW directly when Sheldon's World of Warcraft account is "hacked" or stolen by a rival gamer named Todd Zarnecki. Sheldon spins out of control into a hysterical frenzy to reclaim his account. Although the audience finds it comedic, Sheldon's and his friends' obsession about video game prestige and the MMORPG itself is not that different from the behavior of "hardcore" WoW players. Both of these episodes address online gaming as a normal activity that can quickly become an obsession, especially when something goes wrong in an already established game or when a person's real life deteriorates to the point that he or she feels a need to escape. Although *The Big Bang Theory* is fiction, part of my thesis will explore the line between real people's enthusiasm for an online video game and addiction. Moreover, my thesis is about technical communication in Blizzard Entertainment's MMORPG, World of Warcraft. I will explore the game's need for better, professional technical communication and how this can benefit the already dedicated community, especially in providing information about the possibility of online game addiction, which is an issue that has received attention by the mental health and academic communities as games like WoW have become wildly popular with millions of users across the world.

Is Gaming Addiction Real?

Before introducing *WoW* in greater detail, the issue of video game addiction and a bit of information on the video game industry in general will provide some context to Blizzard's MMORPG in the gaming community. Table 1 provides some general definitions related to the "gaming community" that I will use in my thesis.

Table 1. General Terms Related to Gaming Addiction

Term	Explanation
Gaming	The act of playing electronic video games.
Gamer	A person who plays video games. Gamer can also be used to describe an individual who is highly engaged in the gaming community.
Gaming Community	The amalgamation of video game developers, players, and individuals who write for and about video games.
Gaming Addiction	Playing video games excessively despite the harmful physical and social consequences that result from playing the game. Addicted players will often attempt to curtail their playing with little to no success (Metcalf and Pammer 1942). For the sake of this thesis, "gaming addiction" will refer to online games or MMORPGs.
MMORPG	Massive Multiplayer Online Role Playing Game. Video Games that require the player to have an active internet connection and play in real time concurrently with real people.

Although the question of "gaming addiction" being a real addiction is contested in the mental health community in terms of its prevalence in the video game playing population and its classification as a behavioral addiction, the sources I have studied do not deny that "addiction" is an issue that affects a small percentage of the overall MMORPG-playing population. Scholars acknowledge that "addiction" is a problem, but none of the academic sources I have consulted indicate that anyone who plays an online

game is always going to become addicted. The issue of gaming addiction is so complicated that scholars cannot even agree on a single term to best encompass the condition when a gamer plays to his or her social detriment or, in extreme circumstances, death, like in the case of a 20-year-old man who suffered a pulmonary embolism from sitting for too many hours on end while playing a game (Gallagher). "Gaming addiction" is the most popular term, but some scholars typify "excessive" gaming as distinct from "addiction" (Liu and Peng 1306) ("The Role of Context" 120). "Excessive" gamers could spend as many hours playing as "addicted" gamers but not suffer any detrimental consequences like deteriorating social relationships or distress at his or her inability to stop playing the MMORPG. Harm to the player's physical well-being or social relationships is one of the most telling indicators of whether or not an addiction may be present in any dedicated player.

Video game addiction, like any addiction, could also elicit social stigma, especially considering the tone of reports issued in popular media about deaths associated with victims or perpetrators spending too much time playing games (Elliot et al. 949). Gaming culture already has a certain amount of negative bias attached to it because the video game industry is new, especially compared to other established entertainment industries like the film industry. Problems that result from playing games, like addiction, are still in the process of being evaluated by behavior and medical experts. Gaming also tends to be framed in negative terms, especially in news stories and reports, and this in turn leads to general hostility from the gaming community toward researchers, friends, and family concerned about the issue of "gaming addiction" ("The Psychological Study of Video Game Players" 559).

Video Games and Violence in the News

Recent debate about video games has centered on their potential ties to violence, but addiction remains a related concern. For instance, the recent tragedy in Newtown, Connecticut in which 20-year-old Adam Lanza stormed Sandy Hook Elementary School and gunned down 20 first graders and six teachers and administrators minutes after murdering his own mother at their home received national attention concerning the shooter's involvement with video games (Christoffersen and Noveck). The Newton tragedy led to an outpouring of articles on news and entertainment websites about the issue of video game playing and violence in addition to issues of mental illness and gun control. Some misguided sentiments about video game playing on behalf of political figures were aired, and one of the most extreme was a statement former presidential candidate Ralph Nader made in a *Politico* interview in which he blamed video games and their makers for growing acts of violence in the nation and referred to them as "electronic child molesters" (Kerr). Comments like Nader's and dismissive attitudes about the gaming community from other public figures like California Senator Leland Yee, who explicitly stated that gamers have "no credibility" in the argument about the relationship between violence and video games, reinforce the notion that video games are still fighting for their position in the United States as a legitimate and safe form of entertainment (Seitz).

Kotaku, a video-game news and review website owned by Gawker Media, ran an article about gaming addiction on January 25, 2013, bringing this topic up alongside the many different articles related to games and violence that surfaced in the same month, such as the two mentioned above. In contrast to the notion brought forth by Yee about

gamers having no credibility when it comes to their hobby, Phil Owen's *Kotaku* article provides a comprehensive overview of gaming addiction and its status as a real problem worthy of more research, scrutiny, and classification to an audience that is most likely populated by "gamers" (Owen).

The Gaming Industry

"Gamers," or people who enjoy playing video games, are only part of the overall community. The video game industry is a fairly new but unquestionably successful entertainment enterprise that has risen alongside the evolution of computer technology. In 2011 gaming industry is lucrative, bringing in \$24.75 billion for games and related accessories ("Industry Facts"). The gaming community involves people from all corners of the globe of differing ages, occupations, and interests in gaming. Players who choose to primarily engage in playing in online environments and interacting with other people are quite diverse. Online gaming is usually the focus of gaming addiction because these games tend to generate more players who self-identify or are identified by friends and family as addicts because of the non-linear, open gameplay and the unpredictable, social nature of MMORPGs ("Recent Innovations" 8). Language and perception, especially those espoused by politicians, factor into the concept of gaming addiction.

Methods

The analysis of language of the gaming industry and video games plays a large part in my thesis, but I will explore language mostly in relation to the type of guidance offered by Blizzard's official guides, in-game Help, and information provided on *Battle.net*, Blizzard's official website that includes guides, information, and forums for

WoW users. I will also provide examples of fan-generated information on the public Battle.net forums and the fan-made website Wowpedia to illustrate the dedication of the community and how fans help each other when Blizzard's official documents do not provide adequate guidance about gameplay features or the best way to engage with the game.

WoW also constitutes a surprisingly complicated system of terms and abbreviations related to gameplay and playing styles that are completely devised by the fan community. I extensively encountered players using specialized terms while playing WoW, and my examples stem from my observations in the game world. I will use technical communication theory and sources to analyze this communication and to highlight the intrinsic power relations inherent in the WoW community that all hinge on the use of this unique, socially constructed language. Like many other instances of language use, WoW's terms and abbreviations contribute to a culture of exclusion and inclusion in which a player, eager to be accepted, may spend days and weeks obsessing over improving his or her character in the MMORPG. I address this issue more in Chapter IV.

I also integrate my discussion of technical communication with the issue of video game addiction. I will provide a number of sources by researchers and scholars in the mental health community to present important information about video game addiction research, most notably the type of player who is most likely to become addicted, surveying methods for questioning and classifying addicted players, and the current limitations of video game addiction research. I will additionally explain specific features of *WoW* and its social community and provide information about how technical

communication either offers useful answers and resources for gamers concerning addiction or how a technical writer could add pertinent information about mental and physical health and safety to the game itself, to the guide that comes with a copy of *WoW*, or in the forums on *Battle.net*.

Technical communication sources are vitally important to my discussion of help in *WoW* because technical communication theory posits why it is important to improve documentation about the MMORPG, especially in relation to matters of mental health. For instance, as ethical communicators, game developers should circulate information and warnings about possible mental and physical health risks associated with prolonged play ("Video Game Addiction and Social Responsibility" 492). Developers of MMORPGs must shoulder some of the burden for protecting players, but they must do so in a socially responsible way that allows players to simultaneously have fun, spend money on the game which finances the company, and encourages players to be aware of the dangers of prolonged play.

My interest in *WoW* and gaming addiction comes in part from my own experience playing *WoW*, although my experience is limited because I only had the opportunity to play for two months, which is a large contrast to players who have been involved with the game since its inception in 2004. I do not purport to be an expert on all aspects of *WoW*, but I have experienced the game as a player and have invested many hours in the fictional world of Azeroth.

World of Warcraft is a medieval fantasy game in which the user finds his or her own path in chaotic Azeroth and becomes a hero. The player raises a character belonging

to one of two constantly warring in-game factions, the Alliance or the Horde. Most gameplay includes combat: using antiquated weapons like swords, maces, and spears or magical skills to kill computer-controlled monsters or player-controlled characters.

Progression generally involves moving through *WoW*'s fictional world, Azeroth, and interacting with computer-controlled characters to receive "quests," which require completing various in-game goals. Character progression involves gaining "levels" which improve characters' strengths and abilities and by finding or winning armor and weapons. In-game items enhance gameplay and allow the character to battle tougher enemies. Furthermore, the player has the opportunity to belong to in-game groups known as "guilds" and participate in many cooperative and competitive events for prizes like rare equipment or recognition among his or her peers on official ranking boards.

The language and communication I have observed in *WoW* surrounding gameplay aspects like the ones mentioned above is invaluable to my thesis and all of the guides and resources I use for reference provide an excellent view of *WoW*'s dedicated community. To interact with the community and gather data, I first had to consider player privacy which includes understanding how Blizzard's MMORPG treats player identity and how I could prevent users from having their characters identified in my thesis because I would only be working with incidental information I found within the game, not by questioning anyone directly.

Privacy Considerations

As Daniel King, Paul Delfabbro, and Mark Griffiths state in their article concerning research methods and the video game-playing community, the best way to

understand the hobby is to participate ("The Psychological Study of Video Game Players" 558). I played *WoW* to gain an impression of the features of the game and to better understand the community and the technical language used by the players. Attaining at least some form of immersion in the community may also alleviate some preconceptions I held about *WoW* and its community. At the time I started this project and my research, I was a novice to *WoW* and MMORPGs in general, but I was eager to learn about the community while paying special attention to the issue of how to preserve the players' privacy in my discussion of the game.

Furthermore, the issue of preserving player privacy and the possibility of interacting with other players was one that I considered when I was in the process of formulating the idea for my thesis. I was given an exemption by the Institutional Review Board (IRB) from Texas State University. The exemption was granted because the information that I consult in the forums and in the game is public and can be easily viewed, especially *Battle.net* content. Of course, I continued to make player privacy a central part of my thesis work and made it a priority to operate as an ethical researcher.

In their article, "New Techniques in Online Research: Challenges for Research Ethics," Rebecca Eynon, Ralph Schroeder, and Jenny Fry say that conducting research on the internet definitely has ethical implications because of the inherently unique issue of context (188). The best way to respect online users is to understand the context in which they are communicating and which utterances are private and which are clearly meant to be viewed by the public. Private or public utterances can be difficult to identify because most communication is in text and is accessible. This is especially true of *Battle.net* because Blizzard's forums are public. Registration is not required to view conversations

in the community, only to post and participate in them. Players' words are on display for anyone who would wish to view them, so every player should ideally be aware of the difference between personal and public content. Of course, though their words are public, any posts that appear on *Battle.net* are private in the sense that they do not display the players' real name or any personal information. Instead, the forums only use portraits of the user's in-game character and his or her fictional name. *Battle.net*'s boards belong to Blizzard and, legally, any discourse generated is technically the company's property ("Battle.net Terms of Use").

While conducting my research, I did not directly question *WoW* players about matters relating to my thesis other than basic queries about the meaning of abbreviations of game features like "bgs," which refers to "battlegrounds," that came up during the course of normal play. Additionally, in this thesis I only discuss and include what I refer to as "public speech" or text and forum posts that are available to anyone reading *Battle.net's* forums or any bystander in-game. The forums on *Battle.net* are public in the sense that they do not require the user to have an account, post in the forum community, or even play the game to view them. In-game chatting is more complex because of the variety of "channels" that Blizzard provides for different types of communication.



Figure 1. Chat Channels. ©Blizzard Entertainment

Most of the "Chat" channels observable in Figure 1 are private because they are only visible to two or more players in a specific, exclusive group like a "party" or a gathering of selective players who are already known to each other in the game's world. The "Global Channels" feed to every player in the general area and thus are "public speech." For instance, every player in the fictional, in-game locale of Stormwind City with the "General" channel turned on will be able to read comments made by any player using that channel. Many comments on public channels are intended to be overheard and players will conduct entire conversations relating to game matters using these channels. In general, there is no way to know how many players are listening on a public channel because player population varies by the time of day and locale in which they are chatting, but the number could potentially range from a few players to hundreds.

Additionally, Enyon, Schroeder, and Fry mention that quoting or using online interactions, even when made anonymous, may still carry ethical implications if the words can be easily traced back to the real user (191-2). The ethics involved in analyzing casual language in an internet setting are not easy, but the protections that Blizzard puts

in place at least ensure privacy for *WoW* users. Blizzard allows for its customers to be anonymous in the sense that there is no way to obtain personal information about another player's email address or real name without that individual's permission.

Another reason that it is hard to know the identity of or track other players is because there are two separate ways to make "friends" in WoW. The first is simply to add the character you wish to continue to play with as a "friend." The other player does not need to consent to this action because the only information exchanged about a particular character who was friended is a notice when he or she is logged in as the friended character. Most users have multiple characters, but they do not share friend lists unless they were added using what Blizzard calls "Real ID." The method of friending previously described could be considered more "casual" because there is no personal information exchanged. A "character"-based friend can still maintain total privacy among other players. In contrast, to establish a "Real ID" friend, one player must share the email address associated with his or her account. The party that provided the address is then sent a real ID friend request and if he or she accepts, every time either player logs into any of Blizzard's titles, the Real ID friend will receive a notice. Real ID also shares the name that registered the account with World of Warcraft, so Blizzard strongly encourages its users to only add trustworthy friends and real-life contacts in this manner ("Real ID").

To further preserve the privacy of *WoW* players, I refrain from using any character names in my thesis when I refer to conversations that I have observed in the game or have gotten from *Battle.net*'s forums or from the comments on the guide section of the website. Also, when I include screenshots from the game and forums, all player names are intentionally blurred to preserve their privacy every time they appear. I did not

follow or seek out any particular player during the course of my research. The types of examples I include concerning technical language in *WoW* could be observed by any engaged player who participates in the game or reads the forums and the guide on *Battle.net*.

Content

In Chapter II, which is a summary of Blizzard's *World of Warcraft*, I will explain the game's inception, story, structure, and features. Understanding the basic game leads right into my discussion of technical communication present in *WoW* in Chapter III. I delve into technical communication theory to outline how users of *WoW* not only take a large part of constructing and disseminating information but also how they inadvertently use gained knowledge as a tool to promote themselves and sometimes exclude less experienced players from conversations about the game.

Chapter IV brings technical communication and gaming addiction together. I will begin by briefly exploring the concept of gaming addiction's history and the myriad of research conducted by scholars and researchers in the psychology community. I also relate gaming addiction research to my experience playing *WoW*. Though I found the game enjoyable, I oftentimes felt like I really was in the middle of a battle as I played because every interaction and new activity was filled with frantic moments where I attempted to understand, decode, and act on information provided by the game and by my hurried and enthusiastic comrades. I felt intense embarrassment, especially in group settings, when I did not react quickly or appropriately because of my own learning experience or a lack of knowledge, and I felt an equal amount of excitement when I

completed a difficult task or received a genuine compliment from another player, even if the latter situation was rare. My feelings associated with playing *WoW* are not unique, and I posit that it is the ties to other people, and subsequently acceptance and rejection that could potentially contribute to spending time improving or even obsessing over the MMORPG. I explore these connections referencing the work done by researchers Shang Hwa Hsu, Ming-Hui Wen, and Muh-Cherng Wu in their article, "Exploring User Experiences as Predicators of MMORPG Addiction," to look at particular features of *WoW* that could act as "predictors" to online gaming addiction.

Chapter V is about ethics on behalf of game developers related directly to the importance of disseminating health and safety information, especially concerning the concept of online game addiction. I also offer solutions involving technical communication and forging links between the developers and the users for the benefit of the entire *WoW* community. I conclude with Chapter VI, where I reiterate my purpose for writing this thesis and remark on future directions in research and technical communication.

II. WORLD OF WARCRAFT OVERVIEW

The easiest place to begin is to understand the MMORPG and, specifically, World of Warcraft (WoW). Before analyzing the particulars of WoW and its technical communication aspects, it first must be introduced in terms of its story and gaming features to avoid confusion about the focus of the game. To this end, I will briefly describe MMORPGs in general before moving onto the history of WoW and its developer. I then explain the game's background and features that serve as groundwork for my later analysis of how language about gaming features intersects with the community and the technical communication that takes place in the forums and in the game itself. I played the game starting in January of 2013, and all screenshots and information provided about WoW are based on the Mists of Pandaria Expansion, which is an addition to the game that reflects its current storyline and content, and Patch 5.1 or the version of the game during the time I played it.

Understanding the MMORPG

The world of online gaming could be considered even more of a mystery to outsiders of gaming culture than linear, singe-player games like Nintendo's famous *Super Mario* series that are played on a console connected to a television or on a handheld gaming system. Console games (relevant console systems in early 2013 include Microsoft's Xbox 360, Sony's Playstation 3, and handhelds like Nintendo's 3DS) share

many narrative commonalities with novels and cinema: there is a definite beginning, middle, and end to the visual and interactive experience, and there usually is a coherent narrative to follow. Online games, on the other hand, vary greatly, ranging from the unfocused time-wasters such as Facebook games designed specifically for casual gamers to role playing games so complicated that they need their own encyclopedias to explain mechanics, story, and the in-game world. The focus of my thesis, *WoW*, definitely falls under the latter category.

The term Massive Multiplayer Online Role Playing Game, abbreviated MMORPG or MMO depending on the game, is somewhat self-explanatory concerning the nature of these online games. They encompass worlds large enough that it takes months to explore them with open-ended experiences that allow the player to follow the story uniquely and in his or her own time. MMORPGs are conducted wholly online, and involve a player building a single character to interact with the fantasy, sci-fi, or realistic world that the developers have created. In the guide that comes with a subscription or copy of WoW, MMORPGs are described as "[g]ames that are played simultaneously by hundreds or thousands of players ... MMOs also do not have an offline component to the gaming experience" (Branger et al. 3). These games contain narratives and an overarching story, but they thrive on experiences created by players interacting with each other through many different means to include text and chatting in real time. The potential to interact with people locally and globally is one of the most social aspects important to consider when studying MMORPGs. Online games are also simulations of fantastical worlds which makes for an interesting gaming experience because being a "different" person, good or evil, is entirely possible in an MMORPG.

As B. J. Fogg writes in, *Persuasive Technology: Using Computers to Change what we Think and Do*, computers are at their most persuasive when they are being used for simulation (61). One particularly pertinent section of the text is his section on "environment simulations" as persuasive tools. Fogg states "Like cause-and-effect scenarios, simulated environments provide a safe "place" to explore new behaviors and perspectives" (69). Fogg's point is extremely relevant to the general behavior of players in an MMORPG like *WoW*. The environment is incredibly fantastical and the level of immersion in such an environment will differ from player to player but also the potential for being someone else and testing new behaviors against "real" people is understandably attractive to players. Technical language particular to the *WoW* community plays a large part as a persuasive force because this language is directly tied to seniority and success in the game, as I will explain further on in my thesis.

Blizzard Entertainment

Blizzard Entertainment, founded as Silicon & Synapse in 1991, is a game developing company based in Irvine, California, which has received critical acclaim for its famous video games ("Company FAQ"). *WoW*, one of its most famous games, was initially released in November of 2004 and soon became a commercial success, boasting four million subscribers within a month ("Blizzard Timeline"). It was a follow-up to Blizzard's *Warcraft* game series, which featured real-time strategy battles where the player built an army and engaged in epic fantasy battles against opposing forces ("Legacy Games"). Figure 2 is a screen capture provided by Blizzard from the original *Warcraft* Game, *Warcraft: Orcs & Humans*.



Figure 2. Warcraft: Orcs & Humans Image from Blizzard.com. @Blizzard Entertainment

World of Warcraft, in contrast, is an MMORPG which shifted the focus from amassing a collective force to building a single character. It fits into the "role-playing" genre because of its immersive story and the emphasis on character-building. Blizzard provides an excellent summary of the global reach of WoW on its "Company Profile" page.

World of Warcraft initially launched on November 23, 2004 in North America, Australia, and New Zealand, with subsequent launches in South Korea, Europe, mainland China, Singapore, and the regions of Taiwan, Hong Kong, and Macau in 2005, Malaysia in 2006, Thailand in 2007, and Latin America and Russia in 2008. The game has achieved unprecedented popularity on a global scale, with millions of subscribers worldwide. It is available in eight different languages based on the regions in which it is

played, and has earned awards and praise from publications around the world. ("Company Profile")

Today, *WoW* could still be considered the most popular online role playing game in the United States. The game currently has more than 10 million subscribed users, which is significant because a subscription entails paying a consistent monthly fee (for example, in January of 2013, the subscription fee for three months \$41.97). If they are paying, players are more likely to be spending at least part of their free time engaged in the game (Ziebart). Though the game was initially released in 2004, it continues to thrive because of player interest and Blizzard's release of "expansions" over the years. To put it simply, expansions are new content that developers add to an existing game. In *WoW*, expansions include new areas on the map to explore, dungeons, and features such as equipment, skills, classes, and races. They also extend the "level cap" a player can achieve. Table 2 lists the names and dates of the expansions that Blizzard has added to *WoW* since its inception in 2004.

Table 2. World of Warcraft Releases ("Blizzard Timeline")("Mists of Pandaria")

Expansion	Date Released
World of Warcraft [Original Game]	November 2004
World of Warcraft: The Burning Crusade	January 2007
World of Warcraft: Wrath of the Lich King	November 2008
World of Warcraft: Cataclysm	December 2010
World of Warcraft: Mists of Pandaria	September 2012

Into Azeroth: The Story of World of Warcraft

At its heart, Blizzard's *WoW* is a game about becoming a hero amidst a neverending war. Miguel Sicart summarizes the basic premise of the story while detailing his time playing Blizzard's popular MMORPG in *The Ethics of Computer Games*. Long ago, the fantasy world of Azeroth was peaceful, with its many different races living in relative harmony until the "evil" Orcs invaded from the Outlands and began conflict most notably with the Humans of Azeroth (Sicart 176). The Orcs' arrival triggered devastating, magical events that threw off the balance of the world and the many races native and nonnative alike became embroiled in war. The Humans and their allies came together to protect their lands and interests as the Alliance, while the makeup of the Horde changed from a collective of mindless soldiers to a united group of allies fighting for their own place in Azeroth.

The battle between the Alliance and the Horde is constantly complicated by the appearance of outside forces, despots, environmental catastrophes, and internal strife within these two organizations. The Alliance is focused more on the problems associated with order and diplomacy, while the Horde fights to overcome its inner chaos ("The Story of Warcraft"). The thirteen playable races in *WoW* are attributed to either the Alliance or the Horde with the exception of the Pandaren, who are neutral and may choose their affiliation. Table 3 provides information about the Alliance and the Horde to include the races that belong to each side.

Table 3. Basic Alliance and Horde Information

	Alliance	Horde
Races	Human, Dwarf, Night Elf,	Orc, Undead, Tauren, Troll,
	Gnome, Draenei, Worgen,	Blood Elf, Goblin, and
	and Pandaren	Pandaren
Color	Blue	Red
Leader	King Varian Wrynn	Warchief Garrosh Hellscream
	(Human)	(Orc)
General Faction Values	Justice, protection, honor	Power, conquest, loyalty
Important City	Stormwind City	Orgrimmar

Realm Selection and Character Creation

From the very beginning of the game, it is up to the player to choose the type of character and gaming experience that he or she wishes to embrace. When the player's game subscription is active and he or she first has access to the game, the first real step is to pick a type of "realm" to experience. Realms are game-world-sized instances, or, to put it simply, though realms are technically separate, each one contains all of the game content that Blizzard has developed. Each realm has an associated server and the populations of realms are kept under control to ensure that any one server does not become overloaded and cease functioning ("Realm"). Realms are generally localized, so players will find companions and competitors who speak the same language and are, normally, from the same country. There are four basic realm types: Player versus Environment (PvE), Player versus Player (PvP), Roleplaying (RP), and Roleplaying Player versus Player (RP-PvP).

Table 4. Explanation of Realms in World of Warcraft

Realm Type	Description
Player vs. Environment (PvE) or Normal	PvE realms are recommended for new
Realms	players. These normal realms allow for users
	to progress in the game without having to
	worry about PvP or staying in character in the
	fantasy world unless participation is the
	particular player's choice (Branger et al. 7).
Player vs. Player (PvP)	PvP realms include the regular game
	experience, but players are free to battle users
	of opposing factions in most areas. In
	"contested" areas where neither faction has
	dominance, players are flagged automatically
	for PvP combat and cannot turn it off
	("Realm"). Rules about "dishonorable
	behavior" in PvP combat do not usually apply
	in PvP realms ("Player vs Player Realm
	Policy").
Roleplaying (RP)	In RP realms, players are encouraged to "stay
	in character" with all interactions with other
	players in the game. Naming rules are not
	strictly enforced, but users are expected to
	pick names that could believably belong to
	characters rather than using terms or anything
	relating to the real world (example:
	"Shayarise" versus "ILikeCookies").
	Additionally, players are not supposed to
	speak "out of character" by referencing the
	real world in conversation (Branger et al. 7).
Roleplaying Player vs. Player (RP-PvP)	RP-PvP realms combine the intensity of PvP
	realms with the immersion required of RP
	realms (Branger et al. 7).

Before entering the virtual world, the player must select the gender, race, class, and appearance of his or her character. Table 5 provides general explanations for identifying factors that all players must decide upon creating a character. It is important to note that while picking one race over another will lock the player into being in the Alliance or the Horde, the differences between the two sides are mostly cosmetic unless the player is heavily invested in the story of *WoW* and its inhabitants. The only exception

is when the player chooses to play as a Pandaren, but even Pandaren players must pledge allegiance to the Alliance or the Horde as they reach the end of the "starting area." To use my experience as an example, I initially planned to create a Human character, but after seeing the many different racial options that *WoW* had to offer, I opted to create a Blood Elf instead because I enjoyed the elves' unusual appearance and the warm colors and beautiful environment associated with their starting area.

The aesthetic choices for any race are actually fairly limited. Appearance customization usually includes five different categories with around ten to twenty options in each to individualize the character. For example, most races feature the "Hair Style" category and the different styles include short, long, and bound hair for most female races.

Table 5. Basic Character/Role Categories in World of Warcraft

Term	Explanation	Example
Race	In basic terms, "race" indicates	Human (Alliance)
	the physical appearance of the	
	character such as body type,	Orc (Horde)
	height, facial features, and a	
	traditional humanoid or more	Pandaren (The only
	bestial appearance. Each race has	netural race: Pandaren
	its own history, faction	players are allowed to
	affiliation, city, mount, and	choose his or her faction)
	specialized strengths. Race also	
	determines the player's faction	
	(Alliance or Horde).	
Class	"Class" specifies a type of	Warrior
	character in terms of stats, spells,	
	and abilities. Class will often	Mage
	overlap with "role" in a group.	
Specialization	"Specializations" are a feature	Specializations for the
	that is available to all classes at	Paladin Class:
	level 10. Specializations are	
	specific paths that influence	
	character stats, spells, and	
	abilities.	

Table 5 – Continued

Specialization	Each class has a minimum of three specializations and each is associated with a given "role."	Holy: Healer specialization associated with restoring health points and eliminating harmful effects.
		Protection: Tanking class associated with high defense, being able to attract mobs, and protect other players from damage.
		Retribution: Damage-dealing specialization. Damange-Per-Second (DPS) classes and specializations are extremely versatile from class to class.
Role	"Role" refers to a character's duties, oftentimes within a group of players. These are directly related to the character's chosen specialization and class.	Healer: player who concentrates on restoring the health of his or her teammates rather than doing damage to monsters or other players.
Gender	In <i>WoW</i> , gender indicates the sex of the selected character. Gender in the game does not necessarily indicate the gender or sex of the player controlling the character.	Female Blood Elf Warrior

The position of the in-game camera is always to the character's back, so facial features are often easy to forget once the player starts engaging with the game. The biggest element of customizing a character's appearance comes from equipping items that are won, bought, gifted, or traded in the game.

After the player is satisfied with the new character's appearance, the step before sending a character out into the world is to give him or her a name. There are no real rules for naming characters other than avoiding anything that could be construed as offensive or hateful. In Roleplaying realms, it is frowned upon to give a character a name

that breaks the game's immersion, but this guideline is not strictly enforced. In this sense, immersion indicates a player's ability to suspend his or her disbelief about being confronted with a fantasy world and see it from the point of view of an inhabitant rather than a person in the real world. No matter what he or she chooses to call the character, when the name is accepted and the player is ready to begin, it only takes a click to send the new arrival into Azeroth.



Figure 3. Character Creation. ©Blizzard Entertainment

Basic Gameplay

Each race has a specialized "starting area" where the player's character is introduced more to the position of his or her character's race in the world than the game's history. For example, when I started my game as a Blood Elf Warrior, the introduction consisted of a sweeping view of the starting area, Sunstrider Isle, while a narrator explained that the Blood Elves were fighting to reclaim the honor lost by their former

leader and to cure the curse that plagues their race. I arrived to find my character standing among a few other new players who were moving around, but entirely silent. The players were either determined to get through the introductory stages of the game, or they were as new and confused as I was.



Figure 4. Entering Azeroth. ©Blizzard Entertainment

WoW operates by sending data over the player's internet connection from the game server to the player's computer. The server materializes the active components of the game world including all utilities like where to find quests or shops to buy and sell items. "Quests" are a basic component of MMORPGs that involve the player completing a task or a series of tasks for a reward. The exclamation mark that I emphasized in Figure 4 is a signal to the player that he or she is eligible to accept a quest from the character under the mark. These characters are commonly referred to as non-playable characters (NPC). NPCs are controlled by the game as opposed to human-controlled players. Most NPCs have a set series of interactions they can have with the player. Usually, the player

approaches the NPC, a screen appears with the narrative, objectives, and rewards offered for completing the quest, and the player accepts. If the quest is declined, nothing happens. When the player has completed all quest objectives, the yellow exclamation point changes to a yellow question mark, and the player can "speak" to the NPC again. The player then completes the quest, receives the reward, and the NPC either falls silent and is unable to be affected by the player, or else the NPC can hand out another quest.



Figure 5. Quest Example. ©Blizzard Entertainment

Most quests require the player to participate in combat, which is done in real time.

Battle usually occurs with monsters and other adversaries that roam the land.

Antagonistic, computer-controlled entities are called "mobs," which is short for "Mobile Object Block" or just "mobile." (Branger et al. 199). Monsters in the field and NPCs

could all be considered mobs. Taking quests that require the player to battle mobs is generally referred to as "normal" or Player versus Environment (PvE) activity.

Characters grow by accumulating "experience points," abbreviated "XP" in the game. The player gains XP in the interest of gaining levels, which increase the character's stats (represented by numbers). As the player gains levels, he or she has access to better moves and spells, harder combat areas, and perks like the ability to ride "mounts" that speed up the process of moving from area to area. Players may also train animals depending on their class, and many form "parties," which are groups of other players for completing difficult quests and dungeons. Harder encounters call for many different classes of players, so banding together is encouraged to create ties in the community and make the game simultaneously more difficult and interesting because no two experiences will be exactly alike if the player interacts with real people.



Figure 6. Fighting in a Dungeon. ©Blizzard Entertainment

Of course, the game does not solely consist of battle, though that is clearly a central aspect of the game. A *WoW* player can undertake professions and hobbies to gain money in a mostly non-violent manner. Some quests also do not require killing monsters or sabotaging the enemy force. The scope of these extra activities is surprisingly broad; from mining in caves for ore and rare materials to fishing, cooking, and tailoring. It is a complex game. Blizzard has been adding content and events since its release in 2004. The sheer volume of things to do and the monumental task of building a character to a potentially ever-expanding limit is definitely a contributing factor to spending countless hours playing. Table 6 describes different types of interactions and activities available to *WoW* characters.

Table 6. General Game Content by Type

Player versus Environment (PvE)	Player versus Player (PvP)	Other Content
Quests: Defeating enemies, defeating bosses, completing dungeons, collecting items, escorting NPCs to safety, delivering messages and items.	Quests: Repeatable PvP quests that usually include fighting the opposing faction for temporary possession of a tower/territory.	Professions: Gathering herbs, mining ore, cooking, creating armor or enchanting items to name a few. Players will oftentimes defeat enemies for materials as well.
Instances/Dungeons: Isolated areas where a group of up to 5 players (1 tank, 1 healer, 3 "dps" players) defeat large groups of aggressive enemies to complete indungeon quests and gain rarer items.	Duels: Low-stakes combat between two willing players. The losing player does not die at the conclusion of a duel.	Pet battles: Players may buy and capture pets in the field and use them to fight other pets and raise them much like they raise their characters. The same pets are available to all characters on a player's account.

Table 6 - Continued

Raids: Unusually challenging content that requires a great number of players to win the scenario. Incredibly rare rewards can be found in raids.	Battlegrounds: PvP Combat Areas that offer a variety of challenges.	Roleplaying: Writing and acting out characters or fan-made stories about the ingame world in real time.
Seasonal Events: Can include raids or combat-oriented quests that are available for a limited time.	Arena: Small teams compete in a series of tournaments.	Seasonal Events: Non-violent tasks players can undertake that are available for a limited time.

Player versus Player or "PvP" Gameplay

Player versus player combat is an important factor of MMORPGs and it is a vital part of any game that caters to multiple players. Healthy competition can ideally add to the user experience, but giving certain users excessive power can lead to problems and scare away gamers who do not enjoy constantly being embroiled in conflict with their peers (Donovan 306). Blizzard does a great job of inserting PvP combat into *WoW* in a way that makes it more controlled and appeals to different playing styles by allowing players to abstain from PvP entirely if that is their choice (307). However, so much enmity exists between most races of the Alliance and the Horde that aggressive, unexpected PvP combat is acceptable and even expected in the game's scenario (Sicart 179).

The ability to fight players of the opposite faction is technically present from the very start of the game. Of the different realms available, there are many PvP exclusive realms that are far more intense than PvE or simple Role-Playing realms. In Player versus Environment realms, the player must give the game permission to "flag" his or her character for PvP or else draw the character into a PvP battle by attacking the enemy or

healing an ally. An icon corresponding to the player's faction appears next to his or her character portrait, and (PvP) is included on the information that pops up when other players hover their cursor over the character's body.

Although PvP is technically available from the beginning stages of the game, it is geared toward more experienced players. It is dangerous for a low-leveled player to wander Azeroth alone because high-leveled players of the opposite faction might be inclined to kill him or her just because the lower character was nearby. It can take only a single strike to destroy a lower player if the attacker is well-equipped; making it counterproductive to always be eligible for PvP encounters unless the user just wishes to take the risk of encountering higher opponents outside of PvP sanctioned areas or realms. Killing other players and healing comrades in PvP combat yields "Honor Points" which can be used to buy special equipment that makes PvP combat easier. Generally, a player can only win honor points by killing players of similar strength; eradicating opponents many levels lower does not yield any real benefit other than personal satisfaction.

An important aspect of PvP behavior is how it is valued and perceived by others. Aggressive combat in the game world outside of PvP instances on Normal or PvE realms is generally frowned upon. There are actions that are categorized as "dishonorable," and could require the intervention of a Game Master who works for Blizzard specifically to support players ("Player vs Player Realm Policy"). Dishonorable actions include "corpse camping," or when the victorious party in a PvP situation stands by the corpse of the player he or she defeated to immediately kill the character when he or she revives.

Tricking a player into turning on his or her PvP flag by stepping into the path of an areaeffecting spell or move is also considered dishonorable, as is indiscriminately defeating

foes far below the aggressors' level. On PvP servers, these actions are considered valid tactics in the ongoing war between the Horde and the Alliance and will not usually require a Game Master's interference ("Player vs Player Realm Policy"). However, the fact that these actions are common enough that they are included in an official Blizzard policy indicates that PvP is a subset of the larger *WoW* community, and some players not only take it seriously but use it as a tool to intimidate and harass other players.

There are many different PvP combat options outside of hunting Alliance or Horde players in the normal game setting. There are instances that are designed for PvP such as Battlegrounds: areas where large groups of players from the Horde and the Alliance battle to the death, and Arena tournaments where specialized, particular groups of players clash with other teams to win fame and prizes. One big difference between Battlegrounds and Arena battles is the manner of banding together with different players. For comrades, Battlegrounds allow for multiple groups of affiliated players to join or for the entire collective to be made up of strangers on the same side who have to come up with strategies on-the-fly to win against the enemy. Arenas, on the other hand, established groups of players who already know each other and have devised their own strategies for play. In the Arenas, groups of players on the same side can fight each other as well. The different PvP combat types each have their own ranking boards called the "PvP Ladder." Players who do well in PvP combat alone or in groups are honored with a place on the ladder and visibility among their peers.

The issue of belonging, the complicated, technical nature of gameplay aspects, and the language endorsed by the game and further specialized by *WoW* players has led to fascinating examples of technical communication. The question of whether or not

technical language mitigates or potentially worsens the possibility of gaming addiction in an MMORPG like *WoW* is partially tied to the notion of how technical language shapes and is shaped by the community. *WoW* jargon provides some insight into how immersive the game is for many players and hints at the numerous hours players must pour into the game to gain basic competence and understanding about essential gameplay elements for success.

III. TECHNICAL COMMUNICATION AND WORLD OF WARCRAFT

World of Warcraft (WoW) contains a staggering amount of technical information. As explained in Chapter II, the user must first understand the basic game mechanics to attain competency in moving, fighting, and completing quests, and as he or she moves into more social settings, additional terminology and even more technical concepts like battle strategies by class are added. Blizzard grants its users basic documentation about game mechanics in the Beginner's Guide, and offers a tutorial in the form of tips that appear on-screen as the player encounters new activities in the game. These are professionally done works of technical communication, but users also greatly contribute to informing the WoW community by participating in forums, maintaining fan websites and wikis, and even providing real-time instruction to friends or guild members in the game setting. Technical language plays a large part in any player belonging to the community partially because WoW users build on fictional jargon related to Azeroth, a world far removed from our own. The language is inherently tied to concepts of competence; knowledge of technical terms implies an understanding of how the game works and, more importantly, how to be a successful player.

Technical communication, as Sean D. Williams establishes in "Interpretative Discourse and Other Models from Communication Studies," is historically concerned with "designing and transmitting technical information so that people can understand it easily and use it safely, effectively, and efficiently" (Williams 430). He places the

discipline as usually putting the ends over the means, or making the product usable with less regard to the interaction between the product and the consumer, in how it is taught and practiced. Though these are not inherently negative attributes, Williams makes the case for expanding the values inherent in technical communication and adapting a more interpretivist stance that explores not only how to effectively communicate but also how to shape and encourage productive and positive community interaction through technical communication (438-9).

Williams' suggested focus for technical communicators resonates well with WoW and the online environment. The game and its community are, essentially, an example of a place where excellent technical communication is needed because gaming concepts may be completely foreign to aspiring new players. The user is required to read, understand, and perform technical actions with the help of official and unofficial guides within and outside of the game. Though WoW allows for many different playing styles, socially interacting with others is encouraged, and every player will inevitably end up communicating with his or her peers at some point in the game. Technical communication is incredibly prevalent in WoW and its community in a number of ways to include the aforementioned guides made by Blizzard and WoW enthusiasts. The fan contribution is especially notable because Blizzard actually acknowledges and recommends that players explore the fan-sites Wowpedia and Wowhead if they want to know more about game concepts or strategies. In addition to being information websites maintained exclusively by fans, Wowpedia and Wowhead are solely dedicated to WoW.

In this chapter, I first describe the type of technical communication present in *WoW* from official Blizzard sources, the limitations of this official work, and how gaps in

information provided by Blizzard is supplied by fans. I then move into a discussion of the technical jargon used and devised by the fan community and how it functions as part of the power dynamics of *WoW* that contributes to experienced players discrediting or bullying their less experienced peers. First, I will explore the concept of information design and its function in *WoW*.

Information Design

Saul Carliner evokes the term "Information Design" in his article, "Physical, Cognitive, and Affective: A Three-Part Framework for Information Design." He begins by describing the difference between the kind of work that technical communicators have been doing for years, focusing on the "tools that produce content" to a focus on the "content itself" (Carliner 1). Carliner states that the task of the technical communicator is to consider the user more than before by predicting his or her mood, goals, and motivations in the process of generating content (1). The shift, in technical terms, is from "document design," the field of creating "texts (broadly defined) that integrate words and pictures in ways that help people achieve their specific goals for using texts at home, school, or work" to "information design," or information that not only aims at delivering the best product visually but that is also problem solving-oriented, assists the user in being cognitively proficient in the information, and makes the user emotionally "comfortable" in the presentation of the information, even if the information itself may still be difficult to grasp (3-4).

Carliner says in his article about information design that one of the important aspects of formulating information is the cognitive aspect and making comprehensive

material. The communicator must be able to understand why the user is reading, the user's particular needs, and his or her potential experience (Carliner 5). It is the task of technical writers to account for different levels of user experience and because *WoW* is a game, these levels will greatly vary in a number of ways. One difficulty that technical writers like Joe Branger and his collaborators who wrote the *Beginner's Guide* for *WoW* must have dealt with is writing for these many different potential users. For example, a more comprehensive, visual tutorial that allows a new character to understand the basic actions in the game (running, fighting, talking to an NPC, placing a spell or abilities on the Action Bar), would be a great help to new players, but even this vital utility could become tedious for experienced players who have seen it before if the tutorial could not be skipped or turned off.

Many new characters in *WoW* can be created by users with entirely different levels of expertise with the game. *WoW* allows its players to make up to 11 characters in any available realm and, to a certain extent, this is encouraged in the community so that the player can experience different classes and roles. These characters, often called "toons" or "alts," may appear to be inexperienced because they are required to start at level 1 just like any new player, but they are being controlled by a person who already understands the most basic actions and does not need the same level of guidance as a truly new player. In addition to the types of players I have described who are entirely new to the game or are already invested in the experience are players who have some level of familiarity with MMORPGs from playing other titles, but would need some guidance about *WoW* in particular. It can be difficult to conceptualize tailoring good guides to

audiences with different levels of expertise, especially in cases where they all should be new to the game.

Ann M. Blakeslee specifically addresses the issue of tailoring technical works to specific audiences in "Addressing Audiences in a Digital Age." She states that one challenge for technical communicators is overcoming the notion that it is impossible to adequately predict user experiences when the potential users are so varied in an online environment (201). Blakeslee draws from Bernadette Longo's work to address this issue and states that though there is a frighteningly large potential audience with access and the need to use technical communication online, there are specific communities built into online environments, and it is mostly a matter of realizing the type of community the writer is addressing (Blakeslee 201).

WoW's population is large – more than 10 million subscribers from over 14 different countries – but the community is less diverse than these statistics imply. Players are divided by their home region, so most users will find themselves interacting with men and women from the same country. For example, my experience has been on realms in North America and all of the technical information I have read appears to cater to an English-speaking, American audience. Clearly, the localized nature of realms allows for technical writers to better judge their potential audiences because they will largely be from the same area.

All of the players I have encountered in the game and have seen posting in the forums are passionate about *WoW* and want to make their experience as fun or rewarding as possible. The biggest difficulty seems to be finding a balance between generating

content that is usable by the community at-large but not so dense that a new player will be completely lost. Good technical communication that appeals to players who require many different levels of guidance is definitely necessary even if technical communicators encounter a more culturally homogenous audience.

Obtaining user feedback is a good strategy to potentially remedy the issue of determining how to create in-depth information, and it is for *WoW* players. Blakeslee mentions user feedback as one definitely positive feature of digital environments for technical communicators because it allows them to better consider the audience by going directly to the source (211). Blizzard provides the users with several forums for feedback, but most of them are directed at reporting bugs in the game or for voicing complaints about changes that Blizzard has made in expansions and patches. There is a forum for feedback on website features, which likely includes the guide section, but it would be helpful if Blizzard allocated some technical writers to engage with the community on how to better prepare guides and documentation on the game's features so that more players can be competent, engaged participants.

Another important consideration in information design is finding a balance between providing a comprehensive guide that engages users visually, cognitively, and emotionally and one that ventures into providing too much information to allow hinder the reader's comfort and confidence. Carliner aptly calls this phenomenon "information overload," and the sheer amount of activities and functions of *WoW* make information overload a real danger for any developer, communicator, or user. The guide that comes with the game is an excellent way to evaluate the type of guidance that Blizzard officially

offers its players about basic game concepts and whether or not the information provided could potentially confuse rather than inform users.

Official Technical Communication: The Beginner's Guide

Joe Branger and his co-writers do an excellent job providing guidance about choosing classes and understanding many basic game concepts in the *Beginner's Guide* that comes with the purchase of a "Battle Chest." The "Battle Chest" is the recommended way for players to purchase *WoW* and can be bought digitally or at a retail store that houses Blizzard's products. The Battle Chest includes the basic game, the first two expansions, a free month of subscription to *WoW*, and the *Beginner's Guide* that Branger and his colleagues published for Blizzard. The guide is also available as a .PDF with the activation of an account on *Battle.net*. It contains images, charts, and explanations of different classes and general recommendations for how to interact with the environment. Most of the information only briefly describes game aspects, and it provides even less guidance about social aspects of the game. For example, the section explaining in-game "Guilds," or exclusive groups of friendly players who may share similar interests in-game, is only a box that encourages the user to find them rather than stating the benefits of belonging to a guild aside from social interaction (Branger et al. 186).

The published *Beginner's Guide* cannot keep up with the changes that Blizzard developers make to the game on a monthly basis. I purchased my copy of *WoW* months after the most recent expansion, *Mists of Pandaria*, was released. The screenshots and information were pertinent to the expansion introduced in December of 2010, "Cataclysm" ("Blizzard Timeline"). The "Pandaren" race and the "Monk" class are the most obvious

exclusions in the *Beginner's Guide*, but there are also less obvious differences such as the change to the acquisition of skills. What is listed in Branger and his colleagues' guide is incorrect, as far as I am aware, because there are no longer "talent trees" to customize in *WoW*'s current incarnation (Branger et al. 171). The old way of customizing specializations occurred via a chart. The chart was a version of organizational hierarchy that, generally, resembled an upside-down "tree" on which the player could select skills and spells as he or she progressed and gained levels. *Mists of Pandaria* eliminates the need for talent trees and the game grants the player most of his or her skills directly as the character gains levels and advances in the game.

Unfortunately, the evolution of information and technical attributes in the game occurs too rapidly for a professional, printed guidebook to follow unless Blizzard is willing to pay for additions and revisions that would be released alongside new content. The game is digital, visual, and interactive so it follows that the official guide should involve the user more directly in learning the basics of the game from the creators without having to rely too excessively on fan-made guides. Alternatively, Blizzard could hire technical writers to keep an updated, HTML version of the guide. Louis Rosenfeld and Peter Morville address the importance of user feedback in *Information Architecture for the World Wide Web*. The authors specifically address how to build a good website, but they emphasize the importance of considering usability, and they mention the tendency of some designers to launch a website and never update it to their detriment and credibility among users (Rosenfeld and Morville 171). Obsolescence is an important issue that Blizzard needs to consider in regard to the print guide and circulating accurate, timely information among new players about understanding and engaging with *WoW*.

Luckily, fans take it upon themselves to shoulder the burden of filling in gaps left by outof-date or undetailed technical communication.

Technical Writing by Non-Technical Writers

In her article detailing the connection between electronic texts and learning, Barbara Warnick states that professionals in the field of rhetoric should consider the evolution in online discourse toward interactivity, content tailored to an individual, shifts in the nature of persuasion, and, most importantly, changes in the concepts of "text and authorship" (329). The last factor is especially important when it comes to discussing technical communication and the rich community present in WoW. Simply put, the community takes on a large share of informing itself on how to play the game. All of the guides, pages, and resources available for the players that were constructed by their peers are obviously not produced by technical writers who have consulted with the developers. The writing the players do could be called "naïve technical writing," which is a concept that comes from Bernadette Longo's article about applying cultural study theory to technical writing, and she defines it as writing that is done through schools and communities that follows familiar structures of technical communication (Longo 59). She applies her theory to education, but it is also relevant in other kinds of learning with digital technology.

Additionally, a group of writers called the Critical Art Ensemble explore the notion of how technology blurs the line between author and user in "Utopian Plagiarism, Hypertextuality, and Electronic Cultural Production." While discussing the semi-acceptability of plagiarism in certain online situations, the group notes that in electronic

text production, the author "ceased to function" as a single person in favor of a collective of people who can constantly read, interpret, and reinvent online texts (Critical Art Ensemble 346). User posts that function as guides illustrate the concept of the less defined author and represent a type of bridge between technical data and communication because enthusiastic young writers must first internalize knowledge of the game that they have gained from official technical sources and from their own experiences, and translate the knowledge to other novice users. Naïve technical writing is done by someone with little knowledge of the field who follows models of this kind of communication that is present and established by professionals like Blizzard's technical writers. In the following pages, I illustrate similarities and differences in structure and content by comparing an official and a fan-made guide.

Comparison of an Official and Fan-Made Guide

There are definite similarities in the way that official Blizzard writers and fans construct guides imparting instruction on technical aspects of the game. Figure 8 is a screen capture of the overview of the "mining profession" as it is presented by *Battle.net*. In addition to the many different battle skills and roles players can choose to take on, they can also pick two primary "professions" that require time and patience to make progress. The example provided here, mining, is a "gathering" profession. The user must first speak with a mining trainer located in an in-game city, gain the skill, purchase a mining pick, and then explore Azeroth for ore. The mining skill itself can be profitable, but most users pursue a secondary occupation like "Blacksmithing" and use materials found while mining to create armor for protection or to sell.

The small guide created by Blizzard contains information about mining to include its benefits, related professions, and a short list of steps instructing the novice miner about how to participate in this in-game profession. There are icons provided that are also present in the game and information is separated on the page by boxes and font size and color. The bottom of the page, not included in Figure 7, is a list that provides the user with additional information about quests and abilities relating to mining ("Mining" [Blizzard-Generated Page]), but Blizzard provides no context for the information.

In contrast, Figures 8 and 9 are screen captures of the top of the mining profession page on one of the player-made and controlled wikis devoted to *WoW*, *Wowpedia*. The entry is long, but the contents are listed on the top of the page to allow the user to jump to the section he or she deems important. The arrangement of the information is constrained by the wiki format, but there are definite similarities between the fan-made *Wowpedia* page and the official *Battle.net* entry. The guides provide the same, official, narrative explanation of the mining profession and each mining guide contains a more practical explanation, recommendations of complimentary professions like blacksmithing, and a short explanation on what is needed to actually mine in the game. The fan-made page is far more in-depth because it describes "tools and abilities" that go along with the profession, products that the player can make with the mining skill, information on areas appropriate to miners at all skill levels, and even bugs that are or have previously been associated with this profession ("Mining" [Fan-Generated Page]).

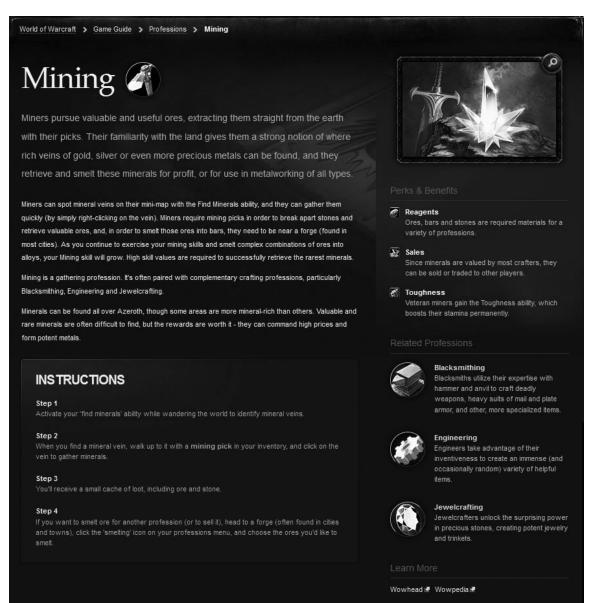


Figure 7. Mining Profession Guide on Battle.net. ©Blizzard Entertainment

Mining (W) Mining (Profession) List of ore veins • List of ore by zone • Quests • Recipes • Trainers Miners pursue valuable and useful ores, extracting them straight from the earth with their picks. Their familiarity with the land gives them a strong notion of where rich veins of gold, silver or even more precious metals can be found, and they retrieve and smelt these minerals for profit, or for use in metalworking of all types. Miners can spot mineral veins on their mini-map with the Find Minerals ability, and they can gather them quickly (by simply right-clicking on the vein). Miners Miners must be tough and precise to succeed - 57 require mining picks in order to break apart stones and retrieve valuable ores, a mining pick is not necessary but can help. and, in order to smelt those ores into bars, they need to be near a forge (found in most cities). As you continue to exercise your mining skills and smelt complex combinations of ores into alloys, your Mining skill will grow. High skill values are required to successfully retrieve the rarest minerals. Mining is a gathering profession. It's often paired with complementary crafting professions, particularly Blacksmithing, Engineering and Jewelcrafting. Minerals can be found all over Azeroth, though some areas are more mineral-rich than others. Valuable and rare minerals are often difficult to find, but the rewards are worth it - they can command high prices and form potent metals.[1] Mining allows you to find and mine minerals, ores, and stones from resource nodes and certain mobs (see Ore skinning) scattered throughout the world. It is one of the primary professions. Materials from mining and the items miners can create from them are reagents needed for recipes within other professions. Mining pointers: in range of deposit/vein that can be mined out of range of deposit/vein

Figure 8. Mining Profession Overview on Wowpedia

For other articles related to Mining, see the Mining category.

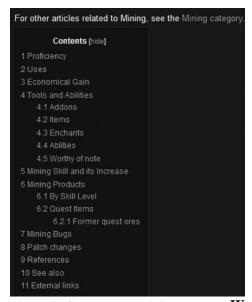


Figure 9. Contents on Mining Page on Wowpedia

Both examples are easily navigated because they include visible headers and locators. The *Battle.net* guide is succinct enough that there is no need for a novice to the profession to scroll down the page; the fan-made wiki provides links for easily navigating the entry (Carliner 4). The official page is, however, far more polished and visually pleasing because the text adequately takes up space, employs a multi-column layout, and uses relevant and eye-catching images. Additionally, the official page does not contain as many categories or details about the profession, unlike the wiki. So much information is included on the wiki about mining tasks not necessarily relevant to learning the skill that a new player may be overwhelmed. On the other hand, the wiki appeals to a greater variety of players in its arrangement because it contains useful information for a more experienced player such as where to find a particular ore and useful items that can be made with the mining skill. In this sense, the fan page more strongly adheres to the idea of "information design" by providing resources for all kinds of players rather than simply arranging information in a clear, coherent manner (2-4). Though the wiki is generally more useful, the fans who created it take information from and follow the official guide while providing information in a format that is indicative of wikis in general.

Good technical documentation and better, more informative guides and tutorials could potentially minimize the time player spend trying to belong to the *WoW* community in the first place. Technical writers could start by looking at forums and guides such as the one presented on *Wowpedia* to see what players really prioritize concerning game mechanics and concepts. Facilitating information about how to play the game directly relates to involving and immersing the player in the language endorsed by the community. Blizzard could benefit from hiring technical writers more aware of what users need in

terms of guidance about how to play the game and interact with the community verbally and textually because knowing the particular language of *WoW* created by the users is key to legitimacy and power among *WoW* enthusiasts. Blizzard should hire technical writers, especially ones aware of what users need in terms of guidance.

Legitimacy, Power, and Knowledge in World of Warcraft

In "An Approach for Applying Cultural Study Theory to Technical Writing Research," Longo explores how technical writing researchers can view the object of their study beyond its particular environment and how the totality of culture and the relationship between culture, knowledge, and power can influence technical communication (53). She suggests that while technical communication can be seen as a "collaborative effort" between the writers and users, it is also a discourse that legitimizes certain types of knowledge while marginalizing others (54). This kind of legitimization is not merely situated in one particular organization, but is seen in the culture at-large. She concludes that technical communicators should also consider cultural studies in their research (54). Specifically, Longo states that using a cultural studies approach can highlight how "[i]nstitutional, political, economic, and/or social relationships, pressures, and tensions within cultural contexts that transcend any one affiliated group" can make the legitimization of certain types of knowledge in technical communication possible (61-2). Longo states that it is as simple as using Michel Foucault's method of starting with one particular statement and asking why it appeared as opposed to another (62). Longo's cultural studies approach leads to the question of how the user forums on Battle.net can give credence and visibility to many different kinds of knowledge beyond what is "good" or "bad" in WoW in terms of personal preference versus "objective" evidence of how best to play the game. By "objective" evidence, I am mostly referring to verifiable statistics, represented in numbers that are associated with abilities and equipment. For example, recommending a character equips a sword that adds 100 points to a character's strength as opposed to one that adds 85 points is logically a better decision, but not all choices about equipment or abilities are as simple in the game because combat depends on many factors, and *WoW* offers countless varied situations.

WoW's diverse population is one way that Battle.net allows different points of view to be aired, especially non-objective, personal opinions based on particular players' experiences. The game attracts users of various ages and genders and who will have different priorities when playing (Wilson). The average age of a WoW player is reportedly 30 and while there is about an equal divide between male and female characters in the game, there is a 50% chance that a male character is "gender-bending" and playing a female character in-game (Poisso). The variety of users who play the game for entertainment purposes means that there is an abundance of variability in the information disseminated among the community. The fact that the players themselves can provide support and information about the game potentially eliminates the kinds of "silences" that Longo mentions in reference to the overall culture's role in regulating certain forms of technical communication. The game holds such a wealth of technical, specialized knowledge that it takes more than developers and technical writers for Blizzard to impart knowledge on how to play the game.

In contrast to the availability of different kinds of knowledge from various perspectives that is a defining trait of the *WoW* community, there is a trend of prioritizing certain kinds of knowledge over others exactly the way Longo describes. Players also

involve themselves in the processes of "silencing" or discrediting the perspectives of others by holding their knowledge and experience over other players. For example, in a casual discussion on one of the class pages, Player A makes a statement in favor of the "fury" warrior specialization as opposed to "arms" warriors. Both fury and arms warriors are "DPS" or combat-oriented specializations, but fury warriors focus exclusively on doing damage at the expense of defense from incoming attacks. Arms warriors are more balanced in terms of attack and defense. In the example illustrated in Figure 10, Player B responds to A's endorsement for fury warriors by calling A inexperienced because of the information provided on his character profile. Player C interjects in the middle of their interaction with the point that not all players wish to do Player versus Player combat; some enjoy Player versus Environment, presumably because he or she does not have to come into conflict with a real person.

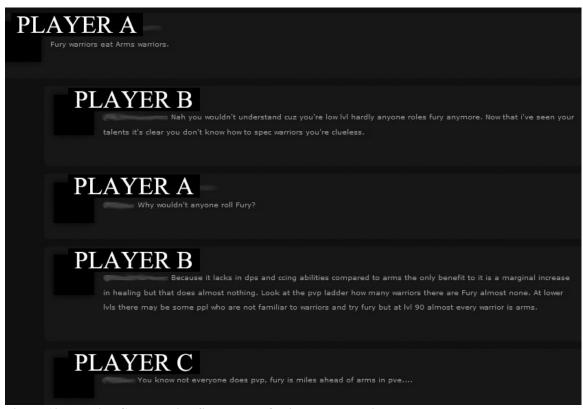


Figure 10. Warrior Conversation Screenshot. ©Blizzard Entertainment

The Language of Exclusion

Barbara Warnick highlights the notion of technological elitism in *Critical* Literacy in a Digital Era: Technology, Rhetoric, and the Public Interest. Specifically, she describes the difference between how "technophiles" are portrayed versus their less knowledgeable counterparts in the field of technology. Warnick states that "[t]echnophile rhetors often tacitly describe themselves as resourceful, knowledgeable, innovative, and in control" and their counterparts are "fearful, ill-informed, regressive, and hesitant" (64). Knowledge of WoW concepts and the language perpetuated by the community directly illustrates the differences between these two types of users and how they view themselves in relation to others. Conversations about the merits of one class over another are typical among experienced players and those who are not as well-versed in the many aspects of the game. Inexperienced or seemingly uninformed players are not literally "silenced" in this process because their part of the exchange is posted in a public forum, but the community views them as having less knowledge, proficiency, and credibility within the community. Their claims of how to play the game or how they enjoy playing the game are likely to be dismissed by the rest of the WoW community. These less experienced players tend to be called "noob" or "newb" by established players and this phenomenon is prevalent enough in WoW that the official guide mentions it in the glossary. "Noob" is also often used derogatively toward new players in general or for someone who seems to lack knowledge in certain aspects of the game (Branger et al. 199). Considering the connotation of the word, evoking the term would be an effective way to shut down conversation by either discrediting the opinion of the player who is being labeled as

inexperienced or derailing the topic into to a contest of insults or a defense on behalf of the accused "noob."

Derogatory Language in World of Warcraft

Blizzard's employees combat bullying behavior through their "Code of Conduct." Each sub-forum in *Battle.net* has a link to the "Code of Conduct" that Blizzard follows in an attempt to make the forums as friendly an environment for all players as possible. Specifically, in relation to this kind of behavior, there is a "Harassing or Defamatory" section of their code that states it is against the rules to "[i]nsultingly refer to other characters, players, Blizzard employees, or groups of people" or to harass any person or group in the forums ("Code of Conduct"). The violator will have his or her account suspended or even banned if the player is found to be explicitly or persistently harassing someone. The rules also apply to comments that are designed to strongly imply the same variety of harassment based on someone's character, occupation, or group affiliation ("Code of Conduct").

Most verbal harassment that is technically against the code of conduct occurs within the game itself because chatting is not closely monitored, and because it happens in every active realm and in real time.

```
[1. General] PLAYER 1 ]: what is with all the 58 and 59 people here? you should be in outlands?
[1. General] PLAYER 2 ]: They have the downs.
[1. General] PLAYER 1 ]: i guess, they are taking all my quest mobs when they shouldnt even be in this world
[1. General] PLAYER 3 ]: I think you need to do all the quests.
```

Figure 11. Chat Concerning Player Competence. ©Blizzard Entertainment

Figure 11 depicts a casual chat between players in the Hellfire Peninsula region of *WoW* questioning the competence of players who have attained level 58 or 59 remaining in the area when, in Player 1's opinion, they should have progressed to the "Outlands." Player 2 interjects by suggesting that players who wish to remain in the area have "the downs," which, as he or she describes a bit later in the conversation, is a reference to Down Syndrome, a disorder that, according to the National Down Syndrome Society, is associated with mild to severe cognitive delays ("What is Down Syndrome?"). Player 2 is not only marginalizing actual sufferers of Down Syndrome, but he or she is directly associating it with players who have numerous potential reasons to be in an area deemed "too low" for their level. Player 2 states later in the conversation that these players could also have Autism, a developmental disorder that is sometimes typified by problems with communication and cognition among sufferers ("What is Autism?"). Mentioning Autism draws yet another comparison between what he or she clearly perceives as "noobs" in the pejorative sense and people who suffer from physical and mental difficulties in real life.

Troubling as it is, the short example of a real-time conversation in *WoW* in Figure 11 contributes to the notion that there is an underlying attitude shared among some experienced players that it is acceptable to insult another player's intelligence based solely on the perception that he or she is doing something wrong in the game. Basically, these seasoned players suggest that it is not worth bothering with a fledging player because he or she is inherently disabled. The desire to insult other players is likely intensified by the anonymous, digital environment. As B.J. Fogg points out in *Persuasive Technology*, simulated environments provide the opportunity to explore new behaviors and this includes obnoxious ones (Fogg 69). Anonymity is also a major factor in how

users feel justified being especially harsh while criticizing other players. Without the player's permission, it is impossible for the average user to know the real name of any player he or she encounters. Real names are excluded for security reasons. To complicate matters further, a single account can have many different "toons," or characters without any visible link between any of them. Players are enabled to behave badly because there are no real consequences for casually insulting another player in real time.

Vitriol toward other players is also apparent in the forums, though notably from the perspective of users who wish for patronizing attitudes and behaviors to change. Players in the forums recount experiences where they have been the victim of harassment for being a "noob," or when they were witness to such an occasion. The phrase "L2P noob" appears within posts complaining about the atmosphere of harassment that some experienced players embrace in *WoW*. Decoded, it is an abbreviation for "Learn to Play, noob" and is used by annoyed players to insult the perceived "noob," likely before the experienced player (or players) leave the group, or before the new player is either kicked or chooses to leave voluntarily.

Perhaps the most touted feature of the new trees is the ability to re-spec on the fly. This feature might have been added to the old trees... And—how long to you believe it will be before one website or another publishes a list of which talent is "right" for each fight? How long after will come: "Wrong talent for this fight. L2P noob." /votekick. –just as now.

Figure 12. Battle.net Excerpt about Attitudes toward New Players. ©Blizzard Entertainment

Figure 12 is a small excerpt from a post made by a concerned player to encourage the *WoW* community to meet inexperienced players with more patience. Specifically, she is explaining a now-obsolete function of the combat system in which players had more freedom to tailor their own abilities and specializations. She explains that this can quickly

turn into a defense on the part of experienced players to harass people newer to the game or who wish to try something different in terms of character abilities. Her post and numerous others address the notion that there is a somewhat toxic attitude prevalent the community at-large toward inexperience, and that this is no way to involve new players in the game. Discussing "noobs" in *WoW* is relevant in the discussion of technical communication and factors of the game that could lead to a player spending more time in Azeroth because the term itself is laden with the implication that the player in question is lacking in extremely specialized, technical knowledge. His or her experience with other players could potentially turn a new player away from the game or shame that same player into spending more time conforming to the standards set by experienced *WoW* players to meet at least an "acceptable" level of equipment and a playing style that is approved or at least not looked down upon by vocal, experienced players in the community.

The debate about "fury" or "arms" warriors captured in Figure 10 is as close to harassment as is likely allowed by moderators and employees of Blizzard who monitor player interactions. Player B refrains from name-calling, but she does back up her assertion that A has little knowledge about effectively playing the game by attacking his character directly and by touting the fact that the warrior specialization that he is praising is rarely famous in terms of PvP combat. As players below her post point out, she is basing her attack on the assumption that A, and by extension many other players, prioritize success among their peers solely in terms of Player-versus-Player endeavors. PvP is just one aspect of the game, but her apparent experience and seniority over other players, especially backed up with technical terms that illustrate knowledge of the game

itself, makes her opinion legitimate even if it does not take different playing styles into account. The clear divide between players who have attained success in the game in terms of rankings or wealth and those who lack knowledge, success, or experience legitimizes the knowledge of experienced players in a tangible way within the community. Player B specifically mentions that "fury" warriors are not worth playing because they do not often appear on the "PvP ladder," which is a quantifiable way to measure success, but does not take into account players who find PvP meaningless or who just prefer "fury" warriors. Player B's use of specialized terminology added the most legitimacy to her argument, and it also marked her as a knowledgeable member of the community.

There is a tangible divide between veterans and "noobs" in *WoW* that is centered on language use alone. While playing the game, I have often encountered situations where I was completely unable to understand what another player was saying because he or she was speaking in abbreviations.



Figure 13. Recruitment in a Horde City. ©Blizzard Entertainment

The screen capture in Figure 13 is not a conversation, but a series of requests for party members made by different players in the Horde-affiliated city of Orgrimmar. The abbreviations are a combination of information about classes and game mechanics. For example, "tank lfg" indicates that a player whose specialization is "tanking" or taking

damage from groups of monsters to draw their attention is looking for a group to play an instance. When a tank is present, the other members of the party do damage to the distracted monsters, and the healer will restore the vitality of the "tank" and any other party members in need. "LFM" stands for "looking for more" and specifies that there is a partially established group that needs a specific addition for a dungeon or some other activity in the game. "Pst" is a shorthand term for "whispering" which is an act of private communication between one player and another on a separate channel that cannot be overheard by players nearby, in a party, or in a guild with either player. Figure 14 is just one isolated sample of the kind of conversations that engaged WoW players have about the game and, more importantly, how they present themselves to the community. The norm in the game seems to be that worthwhile players have already internalized abbreviations relating to roles and playing styles, and consequently, these players are competent and play the game on a more sophisticated level. Any player who wishes to engage with these more experienced members of the community must work to understand the jargon. Such a specialized language is exclusionary and potentially alienating to new players, and this too shows what kinds of technical knowledge are legitimate among the community and why. Abbreviations and shorthand for game mechanics, classes, roles, areas, and utilities are created by the players, likely to save time in a game where the primary method of communication is typing (Branger et al. 198). Intentionally or not, the terms also weed out inexperienced players who would likely be less useful to veterans who are working toward a tangible goal or are just trying to have fun with like-minded peers. Longo mentions in her article that institutions are "cultural agents" that reflect practices of the larger community around them and this can certainly be seen in WoW

because veteran players with verifiable success in the game are allowed to set the standards for newer players (Longo 55). In *WoW*, experienced players literally set the standard for newer players. Playing styles, concepts generally associated with PvP combat, were developed by enthusiasts when *WoW* was initially released because at that time all players were brand-new to the game. Over time, their strategies and recommendations have become standards for other players to follow. The robust vocabulary and jargon in *WoW* was also developed by original players and, over time, that vocabulary has been accepted and used by subsequent generations of players.

Experience, knowledge, and weighing verifiable facts rightfully contribute to any author's ethos and his or her legitimacy as a source of information over someone who is a novice in the same field. What is worrisome is the observable attitude in the game and in the forums that casual or inexperienced gamers have no place as members of the "real" community. For example, in a post describing the need for acceptance in player versatility, the player who created the topic mentions that his playing style, and that of the other members of his guild is "casual," meaning they only "raid" together 2-3 times a week and he does not have excessive free time to devote to the game. While mentioning his status as a casual gamer, the player facetiously remarks that it seems to be a "swear word" within the WoW community. The player's concern again speaks to the attitude that seems to be held by many members of the community that there is a core demographic of dedicated players and a peripheral majority of players who are casual, uninformed, or new. Lack of technical knowledge such as being unaware of how to customize a character and why this is important, as seen in the short debate in Figure 10 is what seems to divide these two classes of players. WoW could definitely use technical writers to

better regulate information and increase the overall community's ability to disseminate technical communication and consistently define terminology.

In his article about interpretive discourse and technical communication, Williams includes a reference to the technical communication article written by Steven B. Katz entitled "The Ethic of Expediency" (Williams 435). Williams states that Katz expertly highlights the real potential for ethical and moral failures on the part of technical communicators if they concentrate solely on the process and expediency rather than considering the broader implications of their writing and culture (435). Considering the technical communication field at-large, a switch to a more human-oriented and communication-oriented philosophy for technical communicators would change the focus from the product to the process and widen the scope to include cultural considerations and any ethical questions that will arise like how prioritizing a certain play style like PvP may harm players who are not willing to participate. Blizzard has remedied this problem somewhat because the player has the choice to refrain from any undesirable gameplay aspects.

The issue of division between players in *WoW* does not threaten lives, but the tension between seasoned players and users who are deemed inexperienced or incompetent ties together expediency and technical knowledge. All of the screen captures in this chapter include technical language and knowledge as a rationale for how a player has done something in error, or, in the case of the chat from Figure 13, using language as a barrier to keep away inexperienced players. The examples display a tendency of the more vocal players in the game and on *Battle.net* to place expediency (ranks, progressing

as soon as one is able, knowledge of the best class and specialization, knowledge of roles and terms) above personal preferences or alternative methods of enjoying the game.

The attitude endorsed by enthusiastic players who are successful in WoW is consistent with the tenants of technological determinism or the belief that technology shapes and changes our society rather than people controlling technology (Royal 16). Experienced players, in general, act as though their own preferred playing styles, arms warrior for example, are inherently superior to other styles rather than admitting that gameplay aspects like PvP and what works in those scenarios are something that players have agreed on over time. Certain classes, for example, are more useful because of the way players have devised PvP strategies. It is ridiculous to assume that Blizzard would intentionally create "weak" or useless classes just to make inexperienced players look bad in comparison to their peers. As Branger and his co-writers advise in the section of the Beginner's Guide about choosing a class, you could watch WoW enthusiasts debate about which class is superior all day. No class is necessarily "objectively" better because all intentionally have strengths and weaknesses to allow for player variety. Players should find what works best for them in terms of class, race, and playing style (Branger et al. 23). Placing aspects like PvP as the pinnacle of achievement in WoW does not speak to the community at-large, but the notion of a player's overall value being based on time and knowledge of the game delves directly into the question of how negative attitudes and the abundance of technical guides and information that hint at the size of the game potentially contribute to spending copious amounts of time in Azeroth.

IV. ADDICTION AND WORLD OF WARCRAFT

In this section I will explain gaming addiction in general, starting with its definition, its prevalence and the surveying methods used by researchers in the field of psychology, and then I delve into the symptoms of video game addiction. I additionally include information about gamer demographics and "at-risk" gamers. The discussion about video game addiction is interspersed with explanations about the particular personal and social features of *World of Warcraft (WoW)* and whether or not they could potentially contribute to a user pouring hours into playing the MMORPG. I will conclude by explaining the treatment methods described by researchers of gaming addiction.

In general, most of the researchers I include attempt to write as objectively as possible to maintain distance from the topic of gaming addiction and its reputation as a dangerous or unworthy hobby as described by political figures that I included in the introduction. Some articles are blatantly pro-gamer (Richard T. A. Wood's "Problems with the Concept of Video Game Addiction") and others feed more directly into fears about gaming addiction being frequently destructive and prevalent (Kimberly Young's "Understanding Online Gaming Addiction and Treatment Issues for Adolescents," Cindy Burkhardt Freeman's "Internet Gaming Addiction"). Overall, there appears to be a balance between researchers who are critical of gaming, those in favor of cautiously focusing more on its benefits and the overuse of the term "gaming addiction," and those

who wish to more precisely define and classify gaming addiction. I use all of these types of sources in my discussion of gaming addiction.

Defining Gaming Addiction

Addiction is a mental health concern that is not only worthy of research but also affects many real players like those who regularly play WoW. Numerous articles concerning gaming addiction have emerged since internet access has become more prevalent in homes, and as gaming technology has grown more sophisticated. In 1989, Margaret Shotton was one of the first researchers who published a notable psychological study of excessive computer use in response to growing concern from health and education professionals about a trend of anti-social behavior in children ("Recent Innovations" 1). Gaming addiction was initially thought to be a subset of internet addiction, and some scholars still consider this to be the case, but numerous researchers branched out and solely studied gaming addiction, especially because it appears to be the most addictive activity tied to using the internet, as Antonius van Rooij and his co-writers explain in "Compulsive Internet Use: The Role of Online Gaming and Other Internet Applications" (51-2). As of 2012, the American Psychological Association (APA) has not acknowledged gaming addiction as a mental disorder, but the new Diagnostic and Statistical Manual of Mental Disorders (DSM) that is reportedly going to be released in May of 2013, may introduce a category for "behavioral addictions – not otherwise specified" that includes online game addiction ("Revised Definition of Addiction").

Psychiatric and Mental Health Nurse Practitioner Cindy Burkhardt Freeman introduces gaming addiction by tracing the history of the term "internet addiction" from its apparent inception as a joke made by a New York psychiatrist in 1995 to Kimberly

Young's presentation at the 1996 APA's annual convention (43). Freeman provides a helpful glossary of terms surrounding internet and gaming addiction in her article, and she defines "addiction" in general as "the compulsive, continued use of a substance or behavior known by the user to be harmful. A brain disease that manifests as compulsive behavior" (44). Additionally, Freeman notes that in a press release from the APA in 2007, the organization has still refrained from classifying "video game addiction" as a disorder in the DSM, but the APA definitely condones more research in the area to fully determine the scope of this problem so that they may potentially include it in the upcoming edition of the DSM (43).

The term "gaming addiction" has been subject to numerous definitions that are available from a variety of sources, but because the term "gaming addiction" and its status as a behavioral addiction are still contested, the scope of these definitions varies. One of the most succinct definitions comes from Olivia Metcalf and Kristen Pammer in their article, "Attentional Bias in Excessive Massively Multiplier Online Role-Playing Gamers Using a Modified Stroop Task." They state that gaming addiction is the "excessive use of games that results in a range of psychosocial problems for the gamer. However, despite the mounting consequences of excessive gaming, these gamers are unable to cut back on the activity" (1942). Luther Elliott and his colleagues provide a definition of gaming addiction that also focuses on the inability to stop playing in their article, "The Contribution of Game Genre and Other Patterns to Problem Video Game Play Among Adults Video Gamers." While addressing "problem video game play," abbreviated PVGP, Elliot and his co-writers state that "[p]erhaps most defining of PVGP is the experience of a loss of control resulting in the perceived inability to curtail use even

when negative consequences are being experienced—a characteristic shared with other emerging pathologies involving use of technological and social media" (950). Much like the two provided, definitions of video game addiction do not necessarily concentrate on excessive playing but instead highlight the gamers' inability to stop playing despite negative physical or social consequences. It is important to note the emphasis on control because the context of a player's life outside of the game can contribute to the amount of time spent playing an online game. The intricacies of problems that can all contribute to a possible game addiction make it improbable for researchers or mental health experts to determine a set number of hours per day or week that could constitute an "addiction" to a video game.

The difficulty in deciding on a more universal definition of gaming addiction is forming both a definition and criteria for identifying addicted gamers. Gaming addiction criteria must take into account the difference between being reliant on games to the detriment of many facets of the gamer's life and a "healthy obsession" with gaming ("Recent Innovations" 4). Part of the divide in the mental health community about defining gaming addiction comes from the many different research methods employed by mental health researchers and academics.

Gaming Addiction Prevalence, Statistics, and Surveying Methods

One pertinent issue that I have identified associated with gaming addiction research is in determining its prevalence among the gaming population. The question of addiction's impact on the overall gamer population is an issue for numerous reasons, but the different reported percentages of gamers who are addicted greatly vary from article to

article. In "Stuck on Screens: Patterns of Computer and Gaming Station Use in Youth Seen in a Psychiatric Clinic," Susan Baer, Elliot Bogusz, and David A. Green report that studies identifying rates of problematic use among the gaming population range from 2.4-20% of gamers (87). Luther Elliott and his collaborators assert that among adolescents, the range of addiction is anywhere from 8-12% domestically and from 0.05-12% internationally (949). Todd Melby's *Second Life* article entitled, "How Second Life Seeps into Real Life," puts the rate of online gamers who experience detrimental effects anywhere from 6 to 20%. In China, around 10% of the nation's over 30 million gamers are thought to be addicted to games (Young 356). Shang Hwa Hsu, Ming-Hui Wen, and Muh-Chern Wu's "Exploring User Experiences as Predicators of MMORPG Addiction" includes marketing data from the Entertainment Software Association (ESA) that states approximately 9% of gamers "overuse" MMORPGS (990).

Jean Oggins and Jeffrey Sammis' "Notions of Video Game Addiction and Their Relation to Self-Reported Addiction Among Players of World of Warcraft" includes many different statistics gathered by other researchers. They state that Yee's 2006 study of a self-selected sample of over 5,500 online gamers showed that nearly half of these gamers were addicted. Gentile's 2008 study of 1,178 children and adolescents indicated that 8.5% exhibited pathological use of online games (Oggins and Sammis 211). In 2005, Cypra found that 5% of 11,442 MMO players scored as pathological video game users, while 20% considered themselves addicted to online games (214). Grusser et al., in a 2007 study, recruited 7,069 gamers, 94% of these players reported that they were addicted, and they found that 11.9% of these gamers scored as pathological gamers (214). Hussain and Griffiths studied 119 MMO gamers recruited from forums of eight different

MMOs and 7% of these players scored as dependent based on Griffiths' scale of video game addiction (214). The statistics provided by Cypra and Grusser et al. are especially important because they demonstrate an incredibly large discrepancy in gamers' perceptions about their playing habits and the ones that score as actually addicted on the researchers' scales.

There are numerous reasons why there are discrepancies in the percentages of gamers who are classified as addicted. One of the most obvious is the type of gamers that the researchers are including. Because they were studying online gamers, most of these studies only used people who play MMORPGs, thus the percentages of addicted gamers is potentially misleading if parents, physicians, or gamers consider these statistics to be indicative of the amount of gamers who experience addiction among the among the entire population people who play video games. This would include individuals who only play casually or those who engage solely with console games. The American Medical Association's (AMA) Mohamed K. Kahn, in the 2007 report on "Emotional and Behavioral Effects of Video Game and Internet Overuse" states that MMORPG players represent "approximately 9% of gamers" (4).

Another issue among these studies when they are taken together is the fact that the researchers have employed a variety of scales for measuring addiction. Generally, these scales will classify someone as "addicted" when they endorse some of the adapted criteria for addiction rather than all of it, which can lead to some false positives when it comes to labeling someone as an addict (Wood 170). Most of these scales were adapted from the manual used by mental health professionals to diagnose mental disorders, entitled the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV), which

is one reason why someone can be diagnosed by endorsing a set amount of the criteria. The most common were scales adapted by Mark D. Griffiths, Kimberly Young, and Jeroen S. Lemmens. The surveys generally consist of questions about game usage and whether or not it interferes with the player's social life, school, or work (Oggins and Sammis 223). Additionally, the gamers answered questions about how often they think about games and whether they play them for fun or for escape (219).

Table 7 summarizes the scales used by different researchers to identify participants in their studies as addicted to video games. The table provides a glimpse into the many methods used by researchers interested in defining gaming addiction.

Table 7. Gaming Addiction Scales

Researchers	Scale for Measuring Gaming Addiction
Hsi-Peng Lu and Shu-ming Wang	Kimberly Young's Internet Addiction Test (IAT) (Lu and Wang 508).
Jean Oggins and Jeffrey Sammis	Kimberly Young's Diagnostic Questionnaire to assess internet addiction use – adapted from the criteria used to assess pathological gambling (Oggins and Sammis 213).
Luther Elliot, Geoffrey Ream, Elizabeth	9-item Problem Video Game Play scale
McGinsky, and Eloise Dunlap	(PGVP) (Elliot et al. 955).
Olivia Metcalf and Kristen Pammer	Addiction Engagement Questionnaire
	developed by Charlton and Danforth (Metcalf and Pammer 1943).
Jeroen S. Lemmens, Patti M. Valkenburg,	7-item gaming addiction scale developed from
and Jochen Peter.	the DSM-IV based on the criteria for
	pathological gambling that was initially
	adapted by Mark D. Griffiths (Lemmens,
	Valkenburg, and Peter 146).
Mehwash Mehroof and Mark D. Griffiths	Gaming Addiction Scale (GAS) that was
	developed by Lemmens et al. (Mehroof and
	Griffiths 314).
Ruth J. van Holst, Jeroen S. Lemmens, Patti	21-item gaming addiction scale that was
M. Valkenburg, Jochen Peter, Dick J.	modified from the DSM-IV criteria for
Veltman, and Anna E. Goudraain	pathological gambling and was adapted by
	Mark D. Griffiths (van Holst et al. 543).
Ming Liu and Wei Peng	The adapted Withdrawal Subscale of the
	Generalized Problematic Internet Use Scale
	(PIU) (Liu and Peng 1308).

Table 7 - Continued

Maria C. Haagsma, Scott E. Caplan, Oscar	Modified version of the Problematic Online
Peters, and Marcel E. Pieterse	Game use Scale (POGUS) (Haagsma et al. 3).
Susan Baer, Elliot Bogusz, and David A.	The Computer/Gaming-Station Addiction Scale
Green	(CGAS) that was adapted from the candidate
	diagnostic criteria based on impulse-control
	disorder and substance use disorder in the
	DSM-IV TR as well as proposed diagnostic
	criteria from other studies (Baer, Bogusz, and
	Green 88).
Ju-Yu Yen, Cheng-Fang Yen, Cheng-Sheng	The Chen Internet Addiction Scale (CIAS)
Chen, Tze-Chun Tang, Tzu-Hui Hang, and	(Yen et al. 283).
Chih-Hung Ko.	
Other methods described by Oggins and	The World Health Organization's 1992
Sammis.	International Classification of Diseases and
	Health Problems criteria for substance use
	dependence.
	Griffiths 2005 6-item measure of problematic
	videogame user scale (Oggins and Sammis
	213).

The researchers who devised and used these scales were generally brief in describing their particular qualities, but as shown in Table 7, many of these are based on the DSM-IV and the DSM-IV TR and link potential gaming addiction to the criteria for substance abuse and gambling addiction. The studies provide evidence that there is some connection between behavioral addictions and a potential chemical factor similar to the changes exhibited by persons addicted to alcohol or other substances. The physical symptoms of gaming addiction provide more insight into the link between the brain and gaming addiction.

Physical and Neurological Symptoms of Gaming Addiction

Video game addiction has definite connections to changes in the player's brain.

Peter R. Martin, M.D. (with Dr. Nancy M. Petry) makes the case that behavioral

addictions are real addictions because these "harmful behaviors ... share neurobiological underpinnings with drug and alcohol dependence" (1). He negates the position that "purist" psychiatrists hold that there must be a self-administered substance to constitute an addiction. He continues by describing the various "stages" of addiction and the effects on the brain to include "the activation of the autonomic nervous system" as a common feature of withdrawal. Withdrawal occurs when a user is denied a particular substance and when the patient abstains from out-of-control behaviors (Martin and Petry 2). There is also the presence of an "addictive state," when the user is engaged in the out-of-control behavior that includes "significant anhedonia," which is the inability to experience pleasure in an activity that would usually cause pleasure because of "reduced sensitivity to endogenous brain dopamine." The anhedonia is exacerbated by anxious or depressed behavioral symptoms (2). He also explains that "the brain rewards pathways that mediate the reinforcing effects of drugs" when comparing pathological behaviors and substance abuse (3). Finally, Martin describes how uncontrollable behaviors are related to various parts of the brain:

These include components within the pre-frontal cortex, nucleus accumbens, the ventral tegmental area, amygdala, and hippocampus, the latter two regions considered the seats of emotion and memories, respectively. The prefrontal cortex, via connections with the limbic system, the reinforcement pathways, and the premotor regions, plays a critical role in the characteristic behavioral impairments of addictive disorders, including planning and decision-making, impulse control, memory, and initiation of voluntary movement. (3)

Chih-Hung Ko and his seven colleagues specifically describe how the brain of an addicted individual reacts to game images in "Brain Activities Associated with Gaming Urge of Online Gaming Addiction" because "the underlying neural mechanism of Internet Addiction has not been completely evaluated" (739). They used a "3 T MR scanner" that took fMRI scans of gamers' brains as images of *World of Warcraft* and neutral images played in fast succession to see what parts of the brain reacted in gamers they diagnosed as addicted (740-1). Their results indicated that there was increased stimulation in the six areas of the brain "regarded as the neural substrates of the cueinduced gaming urge/craving in online gaming addiction" (745). Additionally, these are the areas that react in sufferers of substance addictions (747). These neurological studies are incredibly important to studying gaming addiction because they establish it as a chemical reaction in the brain which has definite ramifications for treatment (747).

Changes inside an addicted player's brain are only one verifiable manifestation of gaming addiction. There are also plenty of physical complications and problems that can arise from regularly engaging with video games for months and years. Griffiths succinctly lists the many different physical complications that can result from overplaying video games in his article, "Videogame Addiction: Further Thoughts and Observations." Physical symptoms of excessive game play include "photosensitive epilepsy, auditory hallucinations, enuresis, encopresis, wrist pain, neck pain, elbow pain, tenosynovitis, hand-arm vibration syndrome, repetitive strain injuries, and obesity" ("Videogame Addiction" 183). The range of seriousness varies for these conditions, but they are all "negative health consequences" that gamers who play for hours and days on

end may suffer over time and should not be overlooked in the debate about defining and treating gaming addiction.

I could not chart physical or neurological features of playing *WoW* in my experience because they require MRIs and the knowledge of how to use them, but these features are still important to note because they have been documented by researchers like Griffiths and Ko and his co-writers and the physical symptoms of gaming addiction like the risk for obesity and strain injuries are definitely worthy of inclusion in Blizzard's tips and documentation about *WoW*. Finally, explaining the definition of gaming addiction, its neurological underpinnings, and exploring the research methods and statistics that have been generated by researchers provides appropriate background for the concept of gaming addiction. I will now move to particular gaming features of *WoW* and describe how these may or may not contribute to a user spending hours playing the MMORPG.

Personally Motivated Features of the User and the Game that May Contribute to Addiction in *World of Warcraft*

Shang Hwa Hsu, Ming-Hui Wen, and Muh-Cherng Wu provide an excellent measure of particular features of an online game that may increase the risk of addiction in their article "Exploring User Experiences as Predictors of MMORPG Addiction." The authors use what they refer to as a "user-experience model," which takes into account personal and social interaction levels between the user, the game, and other players (Hsu, Wen, and Wu 991). Personal and social factors influence how much fun a player has with the game and potentially contribute to excessive amounts of time spent playing. I will

explore each of these factors in relation to *WoW* and provide explanations about how technical communication present in the game may mitigate or worsen a player's experience for any relevant factors.

Personal features describe the user's experience with just the content provided by the game. The four major categories that Hsu, Wen, and Wu include in their article are challenge, fantasy, curiosity, and control. They additionally include reward, which is a culmination of many different features, to include tangible rewards that come as a result of surmounting challenges or intangible ones like recognition among one's peers (Hsu, Wen, and Wu 992-3).

Challenge

Challenge refers to "the achievability of in-game goals related to the difficulty level of an in-game problem" (Hsu, Wen, and Wu 992). In *WoW* challenge includes various features to include difficulty of quests, gaining levels, acquiring items, and progressing in a profession. Challenge is difficult to judge because it is largely subjective based on a particular user's experience. For example, many quests require the player to find a particular enemy and defeat it to get the reward for completing the quest. Enemies are often in the general vicinity of the NPC that gave out the quest, but they can be incredibly difficult to find if the player approaches the target location from the wrong side or if he or she does not realize that the enemy in question is hidden away in a building or a cave. Sometimes, the developers can "mark" the quest incorrectly by highlighting the wrong area of the map in relation to the quest objectives, which creates even more confusion when attempting to complete the quest.

Players will not experience battle-oriented quests exactly the same way; some will find the enemy without much effort, while others may go to a guide or question other players for the enemy's location to avoid further frustration. Merely finding the target is only part of the process. The player must also battle through any other mobs on the way to his or her target and the journey can provide varying levels of difficulty depending on the user who is attempting the quest.

Aside from the particulars of the many different quests, difficulty in *WoW* is also staggered in relation to the player's level. For example, in most of the starting areas enemies are programmed to be passive. "Passive" in this sense means that the creature will not attack the player when he or she enters its range without prompting. The player must begin the interaction by attacking and the enemy will follow suit. The enemies' passivity allows first-time players to get a feel for the most basic features of the game like running and reading the map without having to worry about groups of monsters chasing and doing damage to the character before the player attains a general understanding of combat. Soon after the player moves on from the first area, most wandering mobs are aggressive and will usually chase and attack the moment the character moves into their range. Quests become harder as the player moves to more difficult areas because they will require the player to complete more steps or to defeat challenging enemies in greater numbers. Player progression in the form of gaining levels also becomes more difficult and time-consuming as the character gets closer to level 90.

"Leveling" and Staggering Difficulty

In my experience with the game and a new character, I noticed that it only took about three hours after I had some understanding of WoW's combat system and the questing system to progress from the first level to level 10. I put the same three hours into questing and fighting monsters with my level 64 Blood Elf, and I did not acquire enough experience points to progress to 65. My characters were both completing quests and beating mobs, but the difficulty for the level 64 character was more intense than that of the level 1 because the monsters were more difficult to kill and the quests tended to require more steps to complete. Moreover, when my Night Elf reached level 85, I found that level progression became more tedious to accomplish. Specifically, the amount of experience, or XP, to progress from level 87 to level 88 is 18,980,000 and the average amount of XP gained from completing quests is around 140,000, with some quests granting less or more XP depending on their difficulty. Quests that are challenging at level 87 grant nearly 1% of the XP required to progress. In contrast, the amount of XP necessary to progress from level 10 to 11 is 6,700 and the average amount of XP gained from completing quests at this level is about 800. At the rate of 800 XP a quest, quests at the appropriate difficulty for a level 10 player grant around 12% of the XP needed to get to level 11.

Equally important is the fact that level 85 is where the content for *Mists of Pandaria*, the newest *WoW* expansion, begins. The fights and quests in this area are far more difficult than the ones offered by the game for earlier levels. The reason for the sudden increase in difficulty is partially to allow dedicated players to spend plenty of time with the new content. *Mists of Pandaria* was released in 2012, and countless players

had already reached the previous "level cap" of 85 before buying the expansion. The slow crawl to 90 allows experienced players to enjoy the new content and ensures that they will be able to spend hours exploring new areas and feel that the expense for the new expansion is justified. For players like me who started *WoW* after *Mists of Pandaria*, moving from level 1 to 90 with all content being new requires a huge investment of time spent with *WoW*. Staggering difficulty definitely contributes to the user spending hours playing the game, and my example only pertains to the simple drive to reach the highest possible level in *WoW*. Numerous other game features, especially PvP, require even more time and dedication from the player.

World of Warcraft and In-Game Help

Although Hsu, Wen, and Wu categorize Challenge as relating to more elaborate gameplay mechanics like the multi-step process of completing a quest or gaining levels, I think that Challenge also refers to how daunting the game is to grasp for new players in terms of even simpler tasks like understanding how to read the user interface. My experience playing *WoW* as a brand new player was incredibly confusing. The introduction consisted of a narrator explaining the current situation for the Blood Elves as a race and the game then dropped my brand new character into an immensely chaotic world filled with other players running around, defeating monsters, and completing tasks. The game offered no guidance on what I should do after I arrived other than to investigate the visually noticeable exclamation point above the nearby NPC's head. My previous experiences as a gamer and as someone who has a passing familiarity with the buttons that many computer games use were a boon to me because I was able to understand how to move and how to begin to fight the monsters in the area. I likely

would have been completely lost if I lacked this history with video games. I initially thought that there was no version of an in-game tutorial for *WoW*, but ten days of playing, another *WoW* player informed me that the tutorial option was located in the "help" section of the "interface" menu in the general game menu that is found by pressing "escape" or by clicking the small computer icon on the action bar.



Figure 14. Default Options on the Interface/Help Menu ©Blizzard Entertainment

The default settings that I played under had the tutorial function turned off as shown in Figure 14, so I learned how to play almost entirely by trial-and-error. I had the *Beginner's Guide* by Branger and his colleagues, but the instructions they provide on how to move and generally play start on page 138 in the book, which is quite late for such vital content, and mostly label and instruct the user on the many different features that appear onscreen at all times as the "user interface" (138-49). Because the guide is a digital or physical book, the instructions can be difficult to translate to a visual, interactive game.

The lack of a comprehensive in-game tutorial that is present from the moment a new player enters the game makes the beginning stages of *WoW* unnecessarily challenging and time consuming. At the very least, the tutorial should be on by default for new players. The first screen could provide an option on how to turn the tutorials off for veteran players who start a new account (the tutorial being on or off effects the account globally, meaning that every character belonging to the same account will automatically have the same tutorial option on or off).



Figure 15. Example of a Tutorial Pop-Up. ©Blizzard Entertainment

When the tutorials are active, they will occasionally pop up on the screen when the player performs an activity or opens something pertinent to the information the game wishes to provide. For example, in Figure 15, this particular guide popped up when my character opened her bag. The tutorials provide a simple explanation and relevant visuals for certain aspects of the game and this is, for the most part, extremely helpful concerning

tips like the one shown on how to use an item from inside a bag or having the option to move an item to the action bar. For complex activities, I think that a tutorial involving interaction and having to successfully complete an objective multiple times in a closed environment would help eliminate confusion and trial-and-error mistakes for new players by providing better, more immersive instruction.

Recommendation: In-Game Tutorial Example

An example of a more immersive tutorial for the basic, crucial aspects of gameplay would be for combat. The player could start in a section of the game where other players cannot interfere and the user interface could visually exclude features other than the ability to exit the tutorial and to interact specifically with the action bar and spell book. A closed environment would prevent other players from killing the monster in question and would avoid unnecessary or distracting chatter. An NPC or tutorial pop-ups could then guide the player step-by-step to understanding the action bar, moving toward an enemy, and engaging the enemy by starting a spell or attacking. The attacking process could be repeated three times to ensure that the player fully grasps the concept before moving on. Though it is perhaps simplistic to force a player to do something as simple as clicking an icon or pressing a button in a closed environment, I think that it would be a great help to first-time players because WoW is such a big game and the user interface has multiple aspects to it that require attention. The user could be overwhelmed with so many potentially significant things to look at. Most importantly, the tutorial should be entirely optional so that players with any level of expertise with the game or those who prefer trial-and-error learning could opt out of it. More comprehensive tutorials could better

attract novices to online games, save time, and help new players become more competent members of the *WoW* community with less potential frustration at controlling the game.

Challenge and Addiction

Hsu, Wen, and Wu also mention how challenge in a game could correlate to a risk of developing an addiction to it. They state that research by Thomas W. Malone and Mark R. Lepper shows that an intermediate level of achievability provided the best player experiences and fun. The researchers then hypothesize that players who have "high challenge experiences," players who get the most fun playing challenges that are not frustratingly hard to achieve, will be more likely to develop an addiction to the MMORPG (Hsu, Wen, and Wu 992). The sheer amount of content in WoW provides a variety of difficulty levels for different styles of play. For example, players who wish to spend their time leisurely gathering materials and creating new and profitable items will likely find the process time-consuming and challenging in the sense that some materials are rarely generated and others are found in difficult combat zones. Players wishing to progress through the game just to experience the story and to see the many different environments can move on to new or old areas as they see fit. Extremely dedicated players who are collecting WoW's 1850 total achievements, or status symbols that serve as a verifiable level of the player's accomplishments, in the game will find this a monumentally challenging task that requires some level of mastery in all areas of WoW.

In the conclusion of their study, Hsu, Wen, and Wu did not find challenge to be a critical predictor of MMORPG addiction because challenging factors such as completing a quest or gaining a level have no time limit, so there is no pressure to stay with the game

(996). Though it is valid to assume that the player experiences little pressure to spend time with the game to finish quests or progress for most of his or her *WoW* experiences outside of social influences from other players, there are certain quests of the game that do have time limits and any seasonal, in-game activity obviously has a smaller window for completion than other quests in the game. For example, the Valentine's Day Event in which the player had to pick up a package was available during February. The player must also have a certain amount of dedication to progressing to have the patience and time to complete as simple a task as reaching the level cap.

I do not agree with Hsu, Wen, and Wu's finding that challenge is not necessarily a predictor of MMORPG addiction mostly because in *WoW* it is difficult to separate challenging aspects of the game that keep a player interested. Player motivations for challenge are already likely tied to a sense of social gratification in addition to personal fulfillment. For example, fighting a difficult mob in the interest of winning a rare item might be a personally motivated task, but it is likely that the player is also considering how the item will give him or her recognition among other players or how it will help him or her be a better member of a party. I think that Hsu, Wen, and Wu should have considered challenge in a social sense in addition to their studying it simply between the game and the player because, as they established with the other predictors, social ties are key to whether or not a player may become addicted, and it is unlikely that players tackle challenging content solely for their personal satisfaction. The online, social aspect of MMORPGs like *WoW* must be duly considered along with challenge.

WoW is a challenging game on a number of different levels, but gameplay is perhaps the easiest to explain. The tutorial tips that the game provides are helpful but may

only confuse a player who lacks the most basic knowledge of the game. The technical communication present concerning "challenge" aspects can be difficult to find, but adequately provides tips on how to enhance gameplay. More, in terms of tutorials, could be done to provide support to new users. A more immersive, interactive tutorial mode could help players feel confident enough in their mastery of game elements and encourage them to want to know more about the game environment and story that the writers, artists, and developers have spent years actualizing.

Fantasy

Fantasy in an MMORPG refers to the user's interest in exploring a world or having experiences far removed from reality (Hsu, Wen, and Wu 992). *WoW* encompasses an imaginative world where it is the norm to, for example, battle fantastical monsters with magic and ride dragons from one location to another. Players can choose to experience the world appearing as a normal Human, or he or she may wish to be an anthropomorphic creature like the Worgen or the Tauren. Azeroth is far removed from the modern world and this fantasy setting potentially appeals to some players. Hsu, Wen, and Wu predict that users who have high fantasy expectations and revel in the stories and backgrounds of fantasy worlds are more likely to be addicted to MMORPGs (992).

Introducing World of Warcraft's Story

The story of *World of Warcraft* dates back to the original *Warcraft* games, so it has essentially been written and expanded on for nearly 20 years ("Blizzard Timeline"). The current version of the game and the expanded story added with *Mists of Pandaria* is what all new players will experience. The history of Azeroth is not comprehensively

explained upon starting the game and the player must piece together what is going on from NPCs or else seek outside sources to try to understand the complicated tale of *WoW*. The fact that the developers do not extensively explain the history of all the different races and major events that have happened in 20 years seems to indicate that they either do not think that users prioritize knowing the game's history, or that most users really are more concerned with playing the game rather reading about the fictional story of *WoW*. The guide on *Battle.net* provides any curious users with explanations about the various races on Azeroth and how they got to their current positions in the game.

Terminology Guide

Because the story of the game and its environment are important features of *WoW*, Blizzard could hire or allocate technical writers to provide more resources for the new members of the community concerning the story and the intricate relationships between the different races. Technical writers could additionally add a section on terminology in the general "help" guide in the menu concerning terms the player will encounter in the game directly related to the fantasy setting, but there is not as strong a relation between addiction, knowledge of the story and its features, and technical communication compared to other areas. Hsu, Wen, and Wu also do not consider fantasy to be a critical predictor of MMORPG addiction because, unsurprisingly, attraction to fantasy elements may initially spark a player's attention and attract fantasy lovers to the game, but it has no bearing on whether or not the player will enjoy the experience. Additionally, fascination with fantasy elements tends to fade over time as the user gets used to the game setting (996).

Time-Shifts and World of Warcraft's Story

WoW also has a tendency to jump between events relating to the complicated story of Azeroth and its varied inhabitants. For example, my Night Elf Druid completed a series of quests involving the King of Stormwind's son, Anduin Wrynn. It was my character's duty to escort the computer-controlled Anduin around the city and prevent him from getting involved in combat situations. I found this series of quests confusing because when I "spoke" to King Wrynn prior to attaining the level appropriate for this quest, he mentioned that his son was missing. When I finally reached level 85, the minimum level that players must achieve to explore the "Pandaren" continent added in the Mists of Pandaria expansion, I was treated to a scene depicting the King's anger over his son's ship being lost near the new continent. I then understood that somehow I had "gone back" in the game's timeline to complete the quests with a present Prince Anduin, and then returned to the game's current state of affairs in which he is missing in Pandaria. Providing a note or a tip relating to story events about the game's tendency to move the player backward and forward in WoW's complicated timeline for the sake of seeing events or completing quests would eliminate confusion and encourage the user to become more involved in understanding the story behind the game.

Curiosity

Curiosity can be divided into "sensory" curiosity and "cognitive" curiosity, according to Hsu, Wen, and Wu (992). Sensory curiosity is the physical sound, light, and images that literally appear before the user. Cognitive curiosity, in contrast, is what motivates the user to continue to play to resolve paradoxes, incompleteness, and to find

new experiences in the game (992). Hsu, Wen, and Wu predict that users who have high levels of both kinds of curiosity in an MMORPG will be more likely to develop an addiction (992).

Sensory curiosity likely does not inspire the user to play *WoW* for extended periods of time. The game is not usually very cinematic in its presentation and most interaction appears in text, not voiced or acted out by characters. The game is also somewhat dated graphically in comparison to titles currently being released on consoles and computer. If the user wants the game to run quickly and does not possess a computer with high graphic or processing capabilities, he or she will likely turn down the graphic settings even lower to preserve performance. The game will run more smoothly, but the textures and environment will look worse. All game sounds can also be completely turned off, further eliminating one aspect of the sensory experience. Based on my personal experience, I would often have a difficult time keeping the sound on because both of my primary characters, a Warrior and a Druid, fight enemies head-on. The battle sounds and roars were loud, jarring, and oftentimes become annoying in fast succession if I was playing for several consecutive hours.

Hsu, Wen, and Wu conclude that curiosity is a major factor in predicting potential addiction because curiosity is what drives people to discover, and there is often so much to discover in an online game that this process can continue for long periods of time (995). Cognitive curiosity in particular could contribute to spending vast amounts of time playing *WoW*. Based on single-player quests alone, there are numerous zones for different level difficulties provided in the game and each new area has its own smaller story and objectives to follow. The NPCs the player meets and the activities that a player

does as an Alliance or a Horde combatant are sometimes identical, but they also can vary greatly. For example, I went to the same swamp-like location as my Horde Blood Elf and my Alliance Night Elf. The territory in question was an active warzone between the two sides and the quests in the immediate area all related to the battle. My Blood Elf was tasked with trying to push back the Alliance and help the Horde initiative, while my Night Elf fulfilled quests to push the Alliance army to victory over the Horde outpost. The actions required in the quests were almost exactly the same for the two sides, but my characters got to experience them on the winning and losing side. To even get to the area in question, I had to play for several hours and make the conscious decision to go there as opposed to another area that catered to the same level bracket.

Contrarily, based solely on my investigation of *WoW* and the many activities it has to offer, there is definitely an upper limit to the amount of time a player would spend exploring the game and satisfying his or her cognitive curiosity about the game world in isolation. Basically, if the user is only curious about completing the game content outside of social interactions, competition, or cooperation, then there is certainly an "end" to the game, even if it is only temporary until the developers release significant new content. In a sense, cognitive curiosity in the way Hsu, Wen, and Wu describe it is the same brand of curiosity that drives players of single-player, offline games to complete any title. The player may spend hours exploring every area and attempt to find all the secrets of the game, but there is a definite end to this kind of curiosity when everything has been explored. After the curiosity has been sated, the player must have something else to keep his or her attention. For single-player, offline games, the experience ends with curiosity is sated, but for a MMORPG, the unpredictable nature of interaction with other players is

obviously a great draw on any player's attention. Because of the finite nature of game content, I would say that curiosity players a role in sustaining the player's attention for extended periods of time, but curiosity itself may not necessarily predict gaming addiction unless the player in question has a tendency to become obsessed with exploration to the exclusion of his or her real life. Still, there are many possibilities for different experiences and cognitive curiosity definitely plays a part in the amount of time a player wants to spend with *WoW*, even if the player is not at risk for addiction.

Control

Control encompasses the user's ability to carry out in-game tasks. Hsu, Wen, and Wu hypothesize in their article that users who have a "high sense of control" will be more likely to become addicted to an MMORPG (992-3). WoW is an extremely customizable game to more experienced players, and to provide a simple example, the user can control how complicated his or her interface appears by going to the interface menu and adding or removing the amount of bars on the screen for spells, moves, and any items he or she puts on the action bar. The process of control becomes even more complicated with the concept of macros. Macros allow the player to start a chain of abilities and functions in a more complex manner (Branger et al. 251). The example provided in the Beginner's Guide is a macro for several "emote" or "/slash" commands that relate to animations a character performs when the command is typed. Making a macro that includes "dance, /sit, /applaud," when activated, would have the character go through those animations in that order. Macros can also comprise a series of spells or actions that the player can use as opposed to casting spells or performing moves by clicking icons or pressing buttons on the action bar (251). Macros are the essence of control and customization when it comes

to trying new battle strategies, but they require a working knowledge of strategy, class, and different battle situations in *WoW* that take time and effort to obtain.

Hsu, Wen, and Wu conclude that control is not a critical predictor for MMORPG addiction because control in itself does not require spending time with the game, even if the knowledge for utilities like macros requires time spent playing. Additionally, it is in the developers' best interest to create simple, easily understood methods of controlling characters in a game. If not, players may become frustrated and not continue exploring the MMORPG (Hsu, Wen, and Wu 996). As explained in the section on challenge, good technical communication in the form of consistent, comprehensive tutorials and tips could help eliminate the time the player spends vying for control over the character and his or her environment in the game. I also hypothesize that making the game more playable and understandable to novices could attract more casual players to *WoW* and add to the versatility of the community. The fact that the tutorial is turned off by default is not particularly inviting to new players and it frustrates the concept of control.

Reward

Reward is the fifth personal factor that Hsu, Wen, and Wu add to their study and is the culmination of many other factors players achieve while engaged with the game. The authors describe rewards as the "virtual items users can see and use to benefit themselves" (993). Though the authors state that reward on the personal level refers to tangible in-game items, they also include gaining levels in this category.

Physical rewards, such as a special sword, are a major reason that people continue to play video games. The sense of accomplishment for completing a task along with a

physical item or more experienced character to show for it is an excellent motivation to spend time playing a game. Hsu, Wen, and Wu find in their research that reward is a major predictor of MMORPG addiction (996). Specifically, they find that users who experience high levels of achievement are provided with accomplishments that fulfill the user's psychological needs in the real world and also provide them with achievements that they lack in their real lives (996). Hsu, Wen, and Wu's findings are reminiscent of the information provided by Lemmens and his colleagues about the link between psychosocial well-being and gaming addiction. Specifically, they state that adolescents are likely to turn to games to fulfill needs and to achieve goals that they are incapable of obtaining in real life (Lemmens et al. 145).

Reward is a tangible goal of *WoW* in terms of in-game items. There are seemingly countless items that the player can receive by chance while fighting monsters in the field, completing difficult quests, and participating in dungeons and the many different raid and PvP scenarios. Player levels indicate a seasoned player and having multiple characters at the level cap (currently 90) implies that the player is also competent. A player can spends hours in *WoW* just to get items, but the social forces surrounding awards and fame are likely even more important because merely having a rare item only satisfies the player's personal sense of accomplishment which pales in comparison to admiration and acceptance among his or her peers in *WoW*, especially if the user lacks similar achievements outside of the game, which leads directly into the discussion of the social element of gaming addiction.

Social and Emotional Symptoms of Gaming Addiction

MMORPGs are the focus of gaming addiction studies because they have been shown to be the genre most likely to harbor players with gaming addictions compared to other genres (Oggins and Sammis 212). One reason for this is the social factor and the ability of the gamer to live out a completely different, constructed identity in a fantasy setting. The social and emotional symptoms of gaming addiction are one of the biggest concerns for friends and family of a potential gaming addict because these are the areas that most affect loved ones who have to cope with the addict's symptoms. Articles describing the detrimental experiences suffered by certain players of Second Life provide some anecdotal insight into the social consequences of excessive gaming. Second Life is an online Simulation Game (SG) that literally allows the player to take on a "second life" in which they can do the same things virtually that they can in the real world. These are attractive features because the gamer can pick and choose physical, social, and economic features of his or her online identity (Kuss and Griffiths 279). In Todd Melby's article on "sex lives" in the social simulator, the real, legal wife of an avid Second Life gamer mourns her husband's withdrawal from the real world because he spends all of his time interacting with his "virtual" wife in the game. As she states, "[h]e's fallen down the rabbit hole" (Melby 1).

Concerning verifiable symptoms, Kimberly Young details the social and emotional symptoms experienced by adolescents and adults who could be addicted to games. These include extreme withdrawal from the real world to the point that the gamer will do without "sleep, food, and real human contact just to experience more time in the virtual world" and he or she will neglect hobbies, exercise, and socializing (Young 358).

More specifically, the gamer will show a preoccupation with gaming that involves constantly fantasizing about playing, even when he or she is not engaged in the game itself.

In extreme cases, the gamer may skip work or school just to play: a symptom that is also tied in with a general loss of interest in outside social activities (Young 360-1). The gamer may hide game use or frequently lie about the amount of time spent gaming to diminish the problem among family and friends (361). Emotionally, the player may react to questions or concerns about his or her gaming habits with extreme defensiveness and anger. Disruptive behavior may persist when he or she is forced to stay away from the game (361-2). Young also warns that normal emotional development and the formation of a personal identity during adolescence could be endangered by spending too much time in an online identity (363-4). Young provides only one study to back up this identity assertion, so clearly more research is needed because of the potential for overemphasizing problems with teens and gaming.

Disclosing Social Symptoms Relating to a Potential Addiction

Technical writers for Blizzard, while providing information about the possibility of gaming addiction, could emphasize the symptoms Young provided with the practical caution that the symptoms should be verifiable and that it is more likely that a potentially addicted player will suffer from a number of them, not just one or two. Defensiveness about playing games as a hobby is a phenomenon observable in the gaming community at-large, so it may not constitute a problem in isolation.

Specifically, I am speaking to the perception of addiction in relation to a player's gaming habit. Richard T. A. Wood provides context about the difficulty of defining gaming addiction in his case study entitled "Problems with the Concepts of Video Game "Addiction": Some Case Study Examples." Wood acknowledges potential factors that contribute to the discrepancy between gamers who are labeled and label themselves as "addicts" and gamers who suffer extremely negative consequences from gaming addiction. Wood indicates that part of the reason that the term "addict" can be inappropriately placed on a gamer is because of parental or spousal concern that has little to do with how the gamer actually feels about his or her behavior and, at times, these concerns can lead a gamer to label his or herself as an addict as well. He also cautions against claiming the game is the problem without exploring any underlying diagnosis or social difficulties in a gamer's life (176). Wood also states that some sufferers of negative consequences subsequent to spending too much time gaming online may just have extremely poor time management skills. He implies that if this were to be remedied, the gamer may not necessarily continue to have a problem (176). There are plenty of subtleties to the concept of gaming addiction, and potential over-diagnosing this issue before appropriate screening criteria is available and agreed upon by the mental health community is potentially harmful, especially if medication might be prescribed.

Another important aspect to gaming addiction is a preference for online social interaction as opposed to real-life social interaction. Maria C. Haagsma and her coresearchers find in their cognitive-behavioral model for studying problematic gaming in adolescents and young adults that this preference for online social interaction is a consistent factor in players who could not sufficiently regulate their time playing online

games (6). These same factors also contribute to poor mood-regulation, which is an emotional symptom of problematic game usage (Haagsma et al. 6). Mehroof and Griffiths state that "neuroticism," or a tendency toward worry and nervousness, is a consistent predicator that researchers have found in gamers who are more likely to be addicted (313). The social and emotional symptoms listed here, especially the escapism endorsed by some addicts who play MMORPGs because of dissatisfaction with real life interactions provide some potential insight into why players may become obsessed with playing *WoW*. I will extend this discussion by exploring the social features present in Blizzard's MMORPG.

Social Features that May Contribute to Addiction in World of Warcraft

The social features that could potentially lead to an addiction while playing an MMORPG include competition, cooperation, the presence of audiences and the community, and the sense of belonging and obligation that a player feels to his or her MMORPG community (Hsu, Wen, and Wu 993). The social factors and the personal factors are tied together, but the presence of other players in the game is especially important to note when it comes to addiction because of the studies that have been done on online gaming addiction and the type of player more likely to become addicted needing acceptance from in-game peers. The presence of a thriving online community is a positive feature for many engaged players who love MMORPGs like *WoW*, but if lonely or troubled men and women turn exclusively to an online game to alleviate or avoid dissatisfaction in the real world, online friends and accomplishments seen and acknowledged by others could be a replacement, as opposed to an addition, to the player's offline life. Before explaining the social features of *WoW* that could contribute to

a preoccupation with playing the game, I will first describe the type of gamers who are more likely to become addicted to MMORPGs.

Gamer Demographics and "At-Risk" Groups for Gaming Addiction

One of the biggest questions concerning gaming addiction is the type of gamer who is most likely to develop pathological, or uncontrollable, gaming habits. Many of the articles dealing with adolescents concentrate on at-risk groups of this age-group in particular because of parental concerns. Generally, after reading many different articles on this topic, I find that the consensus is that the typical gamer most likely to become noticeably addicted to online games is between the ages of 17-24, is male, white, unemployed, and expresses a prevalence for online social activity rather than in-person because of problems with self-esteem, loneliness, and overall life satisfaction ("Recent Innovations" 5) (Lemmens et al. 150). He or she may also suffer from a diagnosed or undiagnosed psychological disorder such as Depressive Disorder, a Mood Disorder like Bipolar Disorder, an Anxiety Disorder such as a general social phobia or Generalized Anxiety Disorder, and Attention Deficit Disorder (Freeman 44). The player may also have problems with substance abuse (44). There is also a link between online gaming addiction and "aggression, trait anxiety, state anxiety, and neuroticism" (Mehroof and Griffiths 315). In summary, people who are prone to addictions or who exhibit poor social skills and present themselves as lonely to extreme degrees may be more likely to be addicted to online games.

Haggsma et al. point out that engaged play can potentially point to "at-risk" gamers who may be more likely to develop gaming habits that affect their lives

negatively (Haggsma et al. 1). While monitoring a gamer's time online is generally a positive thing for gamers and their families, the criteria for addressing "at-risk" players versus already addicted gamers will definitely require more research. The gaming community might express some resistance or at least anxiety about classifying gamers who make MMORPGS an integral part of their social lives as "at-risk," especially given the aforementioned sensationalism surrounding game addiction and online gaming in general and their relation to crime and accidental death.

Jeroen S. Lemmens, Patti M. Valkenburg, and Jochen Peter provide useful insight into the question of whether games themselves are likely the cause of social problems, or if they are used as means of an escape in their article "Psychosocial Causes and Consequences of Pathological Gaming." They acknowledge in their introduction that few studies have addressed the issue of psychosocial well-being as a cause or a consequence of "pathological gaming" (Lemmens, Valkenburg, and Peter 144). They conduct a study of "causal relations" between a gamer's well-being and pathological gaming with a "twowave longitudinal study among Dutch adolescents" between 11-17 years of age (146). The study was conducted as a pen-and-paper survey done with the consent of the gamers' school administrators and with passive consent from parents and guardians, meaning that if a parent or guardian did not want his or her child to participate, he or she had to object. A lack of a response was considered parental consent by the researchers. The four major psychosocial factors the study looked at were "loneliness," "life satisfaction," "social competence," and "self-esteem." These indicators were matched against reported time spent gaming weekly (147). The results indicated that lower psychosocial well-being was "antecedent to pathological gaming" in all four factors, but that loneliness had a

reciprocal relationship (150). Thus their conclusion was that lonely adolescents with generally less overall life satisfaction and greater loneliness were more likely to become reliant on games and that this, in turn, increased their loneliness (150).

One reason Lemmens and his associates give for their findings indicates that these young men and women preferred online social interaction and would seek virtual achievement to try to bolster their self-esteem (150). Though this study is only one of many, it still provides evidence to the notion that gaming itself is not as horrendously addictive as its reputation many imply. These psychosocial indicators can possibly identify adolescents and adults who may be more at risk to develop a dependency on online games. Mark D. Griffiths also addresses this subtlety in one of his articles, though he refers to it as the difference between "primary addiction," when the game itself is the problem, and "secondary addiction," when it is the gamer's outside life or personal problems that leads him or her to want to escape to an online game ("Videogame Addiction" 184).

Researchers concerned with gaming addiction have placed importance on the context of the player's life outside the game and possible dissatisfaction in his or her real life that finds its source in the particular player's personality or in the possibility of suffering from mental illness. These factors are social in nature, so it is beneficial to explore the many different types of social interaction and the rewards that player may glean from these encounters in *WoW*. The first, and one of the most present in my experience with the MMORPG, is competition.

Competition

Competition is fairly straightforward as a social aspect of online gaming that could contribute to addiction. Hsu, Wen, and Wu describe competition in their article as "the desire to defeat others" and the system in which players compete to win recognition or in-game prizes. Competition could be a predictor of addiction if players find PvP scenarios highly rewarding (Hsu, Wen, and Wu 993).

PvP combat and activities are a visible, large part of the *WoW* community, especially for dedicated players. Conducting a simple search on *Battle.net* for "PvP" generates over one million related topics by the community as opposed to the term "Quest," which generates over 300,000 topics. Discussion in cities for either faction will oftentimes include enthusiastic players chatting with each other over the general channel about PvP and, at times, answering questions, if they are so inclined, from curious players.

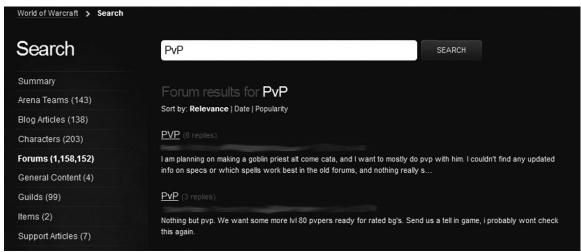


Figure 16. Search for "PvP" on Battle.net. ©Blizzard Entertainment

Hsu, Wen, and Wu do not single out competition as a major predictor of MMORPG addiction because their findings indicate that most players who come together cooperatively or competitively tend to group with strangers and only stay together long

enough to accomplish their individual goals (996). To a certain extent, the temporary grouping assumption makes sense for *WoW*. PvP interactions in *WoW* can be unpredictable and unexpected in the general game when two players of different allegiances with PvP turned on run into each other. PvP events can also be planned and executed in isolated locations. The "PvP" menu in the game comes with an option to join instances like the Battlegrounds in a group or as a single player. If a lone player wishes to engage, that player is immediately "queued" for a certain period of time depending on how many other players in the same general equipment/level range are looking for a group. The user is then given the option to enter or refuse to enter the Battleground when the queue successfully finds a group, and the PvP event can begin soon after that if the player is still interested in participating.

During the PvP event, any given player can leave the instance at any time, though this does come with a penalty for abandoning the team in the form of a block against engaging in another PvP event for about 10 minutes. The random PvP system makes it easy to disengage and the probable lack of personal ties with the allies the player is fighting with make it easy to only participate as long as he or she needs to for the purposes of meeting a personal goal. Though it is incredibly easy to engage in PvP for short amounts of time, the overall ranking system and the sheer difficulty of an activity with as much variety as Player-versus-Player combat could encourage a motivated *WoW* enthusiast to spend time building a character, gaining PvP specific equipment, and fighting other players to learn new strategies and potentially earn a place on Blizzard's official ranking board, called the "PvP Ladders."

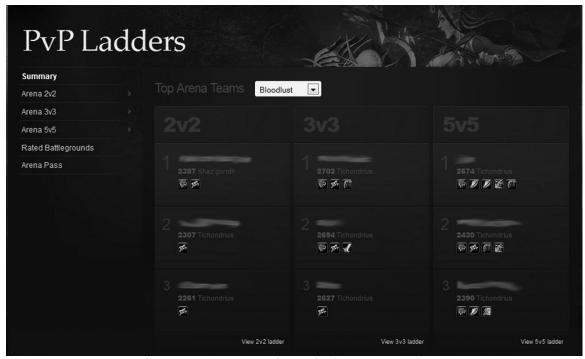


Figure 17. PvP Ladders Summary Page on Battle.net. ©Blizzard Entertainment

I disagree with Hsu, Wen, and Wu's conclusion that competition is not necessarily a predictor of MMORPG addiction based solely on the fact that it is easy to disengage from competitive scenarios. I can only speak about *WoW*, but in Blizzard's MMORPG, competition is what motivates many dedicated players to stay with the game. Michael Gray's incidental article about effective healing in Battlegrounds for *WoW Insider*, a website that focuses exclusively on guides, news, and other content for avid *WoW* players, touches on the importance of competition in the opening paragraph. He states that the "lull" between expansions and new content means that dedicated players will focus exclusively on PvP content (Gray). It is a casual remark that indicates this is a basic reality for dedicated players of *WoW*: PvP is what keeps players engaged when there is no new content to explore. The sense of competition and improving is enough to keep players paying a subscription fee, even if new content is months away. Clearly, competition is a critical part of *WoW* and I would say it needs due consideration as a

potential factor for predicting MMORPG addiction because the possibility of recognition and the group aspect of PvP combat tie into acceptance and belonging, which are two factors that Hsu, Wen, and Wu do single out as important for understanding MMORPG features that may lead to an addiction. Considering the possibility of fame among *WoW* players, the competition factor in *WoW* could potentially cause a player to spend countless hours improving a character or a set of characters for the sake of PvP interactions. Of course, competition ties directly into the concept of community and audiences.

Cooperation

Cooperation, according to Hsu, Wen, and Wu, is "the coordinated effort of individuals who strive for the same goal" (993). The researchers hypothesize that users may increase their risk for addition of they regularly cooperate with other players because cooperation presumably leads to satisfaction (993). Cooperative play is somewhat inevitable in *WoW*. Most quests can be completed alone, but it is improbable that a player will make his or her way through normal game content like quests and exploring without running into other players and finding some way to cooperate to meet a short-term goal. Experiencing different gameplay aspects will require cooperation, because instances like dungeons or battlegrounds require the player to join allies in battle, even if they are strangers.

Blizzard encourages cooperation by providing excellent rewards to players who choose to unite with others. For example, dungeons usually provide better items than the ones a player will receive from most quests or find out in the field. Raids can yield

incredibly rare rewards and are designed for large groups of players to beat. Furthermore, there is an element of community that factors into rewards and cooperation. It is in a player's best interest to join some type of guild while building a character because there are practical benefits to belonging to one.



Fig. 18. Guild Perks. ©Blizzard Entertainment

Figure 18 is a screenshot of the different perks that a 25-level guild attained on the way to its current level. They include "fast track" which increases XP gains from quests and fighting monsters by 10% and "reinforce" which lessens the durability loss done to the players' equipment when characters die, making it less costly to make repairs after tackling a challenging area. Guild perks are designed to enhance a player's progression and they provide benefits to the guild as well. The guild gains levels by having its members participate in challenges together such as three or more members of a guild completing a dungeon. My Blood Elf's progress in terms of gaining levels was much

slower because she was never a member of a guild and did not receive the aforementioned perks. In contrast, my Night Elf joined a guild when she was at level 1 and the progression I made with her was faster.

Even after reading the *Beginner's Guide*, I was unaware that a guild was anything more than like-minded players or friends who wanted to belong to the same group because little information is provided about guilds by Branger and his co-writers. My knowledge of guild perks was provided by another player. Guilds are microcosms in the larger *WoW* community, so it would behoove Blizzard's technical writers to make their existence more visible to new players and encourage them to join new-player friendly guilds to learn gameplay strategies firsthand.

Hsu, Wen, and Wu's explanation for why cooperation is not a significant factor for the possibility of MMORPG addiction is the same as theirs for competition; players tend to band together in the short term to accomplish individual goals and feel no need to linger (996). Again, this assumption has validity because the game is designed to help shy or unconnected players participate in group scenarios with no obligation to stay with a particular group, but the drive to cooperate with strangers will obviously vary from player to player. Based on personal experience, I found that I was always more willing to delay my journey if I happened to encounter players who offered to band together to surmount a challenge even if I did not know them. My first experience fighting in a group was to defeat a challenging enemy with three other players. One of my three temporary allies was a combatant levels above us who volunteered to help out of kindness. With the exception of the more experienced player, the three of us would not have been able to surmount the task of defeating the unique enemy alone. When we finished, the group

went on to defeat another difficult monster, and we even remained when one member of the group requested that we defeat the monster again so that he too could get credit for it. If I had not set aside time to play, I would have had a great deal of difficulty removing myself from the game if I needed to leave my computer to deal with my real life. In fact, I had a tendency to linger in the game for minutes or hours when I was fighting cooperatively with other players or when I wanted to gain more XP to catch up to another player. My drive to progress in the game along with others was in stark contrast to the more lackadaisical approach I adapted when I played as a solo player.

Audiences

In-game audiences are players who are spectators to the actions of other characters who have "no direct conflicts of interests" with the user they are watching (Hsu, Wen, and Wu 993). The authors do not directly relate this factor to MMORPG addiction, but do hypothesize that players who strive to prove themselves in front of others may be more likely to develop an addiction (993). Audience recognition is an important part of the *WoW* community similar to the way the people revel in achievements in real life. In a sense, high achievement and visibility in *WoW* is similar to being a celebrity in real life. Going to a character's profile page or just seeing the equipment a character is wearing is an even easier way for the player to receive attention. Major game locales like Stormwind City for Alliance players will be full of level 90 players sitting around and conversing with their friends in great numbers at almost any hour. Chatting in cities seems to serve a dual purpose. Players who have reached high levels of achievement in the game may have little to do other than sit around and chat with online friends while waiting for an activity, but sitting around cities is also a display

of power because new players will stand and gawk at the activity around them and the achievements that they could potentially attain given time and effort.

Belonging

Belonging is a vital part of real life and it is clearly a motivating factor for adults and adolescents who play *WoW*, even individuals who are not necessarily dissatisfied with their real lives. Players who come together form small communities in the MMORPG. Communities are guilds or clans of players with similar interests or goals who band together officially in the game world (Hsu, Wen, and Wu 993). Audiences and communities are related because players can be both spectator and part of a player's more localized community. These two factors also relate directly to "belonging" and "obligation." Hsu, Wen, and Wu specifically bring *World of Wacraft* into their explanation of the results of their study when they mention that belonging is a major factor in predicting MMORPG addiction. The authors state that users who belonged to a community or a guild in *WoW* spent more time playing the game than users who were unaffiliated (996).

Acceptance is clearly another large part of "belonging" in relation to spending many hours playing an online game. Psychological research into the types of players more likely to turn to online games acknowledges that the context of a player's real life might be a major factor in determining if an addiction is caused by the game or fueled by dissatisfaction or a lack of acceptance in sufferers' outside lives. Griffiths' "The Role of Context in Online Gaming Excess and Addiction: Some Case Study Evidence" attempts to add a layer of context and encourage psychologists, researchers, parents, and players to

gain a more complete picture of struggling players' lives to address factors external to the game in addition to handling the issue of addiction (121). Griffiths includes two case studies, the first is a young man he calls "Dave" who at the time of the study was 21, unemployed, single, and had recently departed from the university environment and all the social connections he had there (121). Dave contacted Griffiths about the case study to provide context to the information he had read about online gaming addiction. Dave identified himself as an excessive player of *WoW*, especially because he was spending 10 to 12 hours a day with the game and had no other demands on his time. He stated that the game improved his self-esteem and that he considered his many in-game friends to be extremely valuable (121-2). Griffiths followed up on Dave for 10 months and at the end of that time Dave had gotten a job, a girlfriend that he met in-game, and found that he was too busy in real life to spend more than a few hours a week or on the weekends playing *WoW* (122). In this case, Dave did not appear to be addicted despite the many hours he spent playing while he had excessive free time.

In contrast, the second case study followed Jeremy who was 38 at the time and had a full time job, a wife, and two young children. Jeremy contacted Griffiths to take part in the study because he was concerned about his own "severe gaming addiction" to *Everquest* and *Everquest* 2 ("The Role" 122). In the months that followed, even though he was encouraged to seek professional treatment and join a support group, Jeremy lost his job and his wife subsequently left him because of their marital problems related to his excessive playing (122). As Griffiths explains, Jeremy was caught in a cycle of escaping his real-life trouble by bolstering his self-esteem with the MMORPG, but subsequently made his problems that much worse, leading him to again turn to the game for escape.

Jeremy eventually sought professional help from a clinical psychologist and expressed some optimism about controlling his gaming habits even though he still was unemployed and separated from his wife at the end of the study (122).

The two case studies Griffiths describes in his article illustrate the difference between an online community that acts as a positive addition to the players' life and one that is used merely as a means to escape from real world troubles without actively dealing with them. Belonging is clearly a complex issue that does potentially as much harm as good to any given player's life outside the game. Game developers and community members who do not know much about other players' personal lives have no way of knowing if they are doing harm or good, but the presence of resources, support groups, and readily available information for troubled individuals could potentially help concerned users who are seeing their real lives fall apart with online gaming as a major contributor to offline social or employment issues. Connected to the sense of satisfaction and belonging is obligation, which occurs most frequently after a player has successfully found a guild or small community of players to befriend.

Obligation

Obligation is simply the "sense of duty" that drives players to participate in and contribute to their overall community (Hsu, Wen, and Wu 993). Hsu, Wen, and Wu hypothesize that obligation will be a driving force in MMORPG addiction because this sense of duty will encourage players to engage with the game regularly and for many hours in one sitting (993). The tie between obligation and time spent playing a game like *WoW* is clear and illustrated with user guides and the many fan sites and wikis associated

with the game. Users feel obligated to contribute their hard-won knowledge for the better of the community and to validate the amount of time they spent playing the game. For example, the user who wrote the "New Players Terminology Guide" that is a "sticky" or a topic that is constantly at the top of the forum for New Players, states that she welcomes feedback and constructive criticism about her terminology guide. The player who created it not only took out time to write it but she also is committing herself to monitoring the topic, replying to questions, and updating the guide as necessary. Her commitment shows her willingness to contribute time and effort, establishing her as a dedicated *WoW* player.

When I play with other players, I definitely feel a sense of obligation to stay, and this feeling intensifies when I am participating in a dungeon instance because I was a vital member of a small group during those times. Of course, there were definitely situations where I had to leave in the middle of an activity for outside reasons or inform another player that I did not have time to participate in a group activity. Despite the fact that I always felt guilty when I had to leave, I was always met with politeness from other players, especially because the game is so well populated that there usually is another user willing and able to take my place. Random encounters are especially easy to leave because the queue system is efficient as long as the server is active and well-populated. Blizzard's allowance for their players' real lives is certainly a positive function in WoW and one that players who have to leave or must limit their time playing because of reallife demands must keep in mind to avoid staying longer than they can afford. A good addition to the many loading-screen tips in WoW would be a reminder about the fact that there is no shame in leaving the game, even in the middle of an event, to deal with the player's real life.

Guild Benefits

Because there are so many types of guilds, they are an excellent way to combat the notion of excessive obligation. The *WoW* community potentially has an active guild to suit every type of playing style. Guilds can be loosely structured or centered on particular activities like PvP centered guilds or ones that are populated by casual players who enjoy professions and gathering items. New, unattached players are bombarded with guild requests as they play the game, and the *Beginner's Guide* provides a general description of guilds that hints at the great variety of them in *WoW* (Branger et al. 186). Ideally, the guide could include a sentence or two about how guilds are also versatile in the sense that they can suit playing styles for users with more or less time to devote to game activities.

The combination of game factors mixed with the ability to belong to a community and become a distinguished player is what makes MMORPGs appealing to any player. Of course, these factors are not designed to facilitate an unhealthy obsession with playing an MMORPG; the bulk of the responsibility for controlling playing habits and addressing larger mental health issues rests on individual players and their families, especially in the case of adolescents. Even though addiction is certainly not the goal, developers like those that work for Blizzard Entertainment should also be mindful of the research into MMORPG addiction and provide proper resources for concerned players explaining not only addiction but general health and safety information. Technical writers could provide lists and links geared toward players who may have an addiction and encourage them to seek professional help.

Treatment Options

Most of the research articles included in this thesis do not specifically address treatment for gaming addiction or even mention it in passing. The articles usually focus on specifying risk factors for addiction, the prevalence of addiction, and negative outcomes of gaming addiction. A few do mention or go into detail about treatment methods that are currently being used by specialists or crisis centers such as the Illinois Institute for Addiction Recovery at Proctor Hospital or the Center for Online Addictions (COLA) at the University of Pittsburgh, Bradford Campus (Freeman 44). Cindy Burkhardt Freeman mentions treatment in her article on gaming addiction when she states that "most clinicians" treat the problem as a "subtype of an impulse control disorder," though she does not go into further detail about what that entails (43). Mark D. Griffiths also mentions treatment in "Videogame Addiction" when he states that "practitioners" tend to treat gaming addiction the same way they do with those suffering from an addiction to gambling (183).

Daria Joanna Kuss and Mark D. Griffiths conduct an extensive literature survey of gaming addiction research in their article, "Internet Gaming Addiction: A Systematic Review of Empirical Research." One of the most important contributions that Kuss and Griffiths make to the evaluation of research in gaming addiction comes at the end of their article, when they address treatment. In two of the studies that they included, patients undergoing treatment for "internet gaming addiction" saw significant decreases in both brain activities associated with gaming addiction and personal cravings to play after undergoing "psychopharmacological treatment," or a combination of therapy and medication, for six and eight weeks respectively (Kuss and Griffiths 289). As Kuss and

Griffiths state, these findings highlight the neurobiological nature of true gaming addiction and that closely monitored pharmaceutical interventions can have positive outcomes for addicted gamers. They also help circulate information that gaming addiction has some connections with substance and alcohol abuse, which has definite implications for the APA classifying behavioral addictions as disorders worthy of being included in the DSM and eligible for coverage under medical insurance plans ("Revised Definition of Addiction").

The articles and studies included here are only a part of the growing field of research on gaming addiction. Hsu, Wen, and Wu's research about predictors of MMORPG addiction, in particular, is potentially useful for psychologists who wish to understand the particulars of the MMORPG experience that can capture the attention of troubled players. Generally, it is vital to note that online game addiction is a real problem that still needs to be researched to gain a specific, consistent definition and treatment options, but it is not a condition that affects a majority of the online gaming population. I did not seek to prove that *WoW* will cause players to become addicted, but I have pointed out features in the game that could potentially contribute to a gaming addiction. Most players of online games engage without serious problems, but it is the duty of the community and Blizzard to inform *WoW* users about the risk of addiction that they face while playing any online game.

V. ETHICS AND POSSIBLE SOLUTIONS

In this chapter, I will address the topic of responsibility on the part of game developers like Blizzard to provide users with documentation about mental and physical health complications they risk by playing an MMORPG. Technical writers could help inform and work with the community to recognize the warning signs of potential addicts and help them seek treatment. I additionally provide some potential solutions Blizzard could implement to raise awareness about the issue of gaming addiction. Of course, all of the solutions I am proposing, especially any efforts Blizzard could make by hiring technical writers or using developers to dissemination addiction information, potentially place the company as liable or legally responsible for causing an addiction. I again emphasize the fact that game developers like Blizzard do not make games designed to turn their players into addicts. Gaming addiction, like all addictions, is not a simple issue with only a single cause. The issue of liability could be remedied by specifically including the fact that Blizzard should not be held liable if a player does develop an addiction in the Terms of Use all players must agree to when signing up for an account on Battle.net.

Responsibility

The majority of the safety information provided by Blizzard revolves around the ever-present threat of "hacking," a term that encompasses many illegal activities to

include altering a game's code or exploiting unintentional "glitches" for personal profit but is usually used to describe the act of taking over another user's account without his or her permission for the purposes of stealing the character's wealth or destroying the account ("Hacks and Third Party Programs"). Hacking is a problem that Blizzard takes seriously. For instance, simply attempting to log into the game from a new computer or location will cause the game to lock the user out of the account until he or she can provide proof of ownership over the account. Players devote time and money to games like *World of Warcraft* (*WoW*) and can connect personal information such as his or her address and credit card information to a *Battle.net* account.

Hacking is a prevalent problem in the online gaming community that can lead to great amounts of emotional distress on players, and it is important that Blizzard devotes time and effort into protecting the private information, time, and money their clients have invested into *WoW* or any other Blizzard games, but they must also be mindful of larger health issues like gaming addiction. I have searched *Battle.net* for mention of addiction, and have only found topics by users, not official Blizzard posts, that address this particular concern. Discussions on real addiction are intermingled with facetious topics that use the word jokingly to refer to a preference for utilities like "wands" in-game. The only evidence I found that Blizzard is aware of the problem of MMORPG addiction is two "tips" that appear on the game's loading screens. Figures 19 and 20 are screen captures of the two loading screens that address time-management and *WoW*. Blizzard could do more to provide support and information to players about the idea of gaming addiction by using good technical communication, but it is encouraging that Blizzard is at least aware of the problem judging by the loading screen tips below.



Figure 19. Time Management Tip on a World of Warcraft Loading Screen. ©Blizzard Entertainment



Figure 20. Second Time Management Tip on a *World of Warcraft* Loading Screen. ©Blizzard Entertainment

Developer Ethics and Disseminating Addiction Information

In the wake of the Newtown, Connecticut shooting tragedy, Vice President Joe Biden was tasked with creating a commission to speak with many different representatives from industries that influence American culture to include video game developers. The recommendations that the Vice President made include a move toward conducting research into the issue of video game violence and potential ties to aggression (Tassi). The underlying message behind this move seems to be to examine the gaming industry's many different features with the possibility that the industry could be regulated in the future if researchers find a direct link between violence and playing video games. Similar concern surrounds research on video game addiction and game developers have an ethical responsibility to inform players about addiction and how to balance time playing with their busy lives.

Antonius J. van Rooij, Gert-Jan Meerkerk, Tim M. Schoenmakers, Mark Griffiths, and Dike van de Mheen specifically discuss the ethics behind informing players of the

dangers of game addiction in "Video Game Addiction and Social Responsibility." van Rooij and his co-writers liken warnings about addiction to the labels on cigarettes about the health risks that come from smoking (490). The gambling industry's forced government regulations requiring appropriate "social responsibility infrastructures," or forced awareness of gambling addiction on the part of casinos to curb the risk of gambling addiction when new casinos open up, was likened to the issue of online game addiction. The writers predict that the United States' government may become similarly involved in the gaming industry if nothing is done to show that developers take the problem of addiction seriously (491). Internationally, China has restricted the amount of hours young users can play online games to combat the risk of addiction and South Korea has an annual "no internet day."

van Rooij and his colleagues encourage game developers to combat the possibility of gaming addiction through "good game design, customer care, and referral services" for troubled players (491). The writers contend that merely including a few warning messages or minor game adjustments are not adequate to address gaming addiction, which is definitely an issue that gamers and developers should understand. The authors conclude by stating that taking on social responsibility and promoting player health will serve the developers by ethically allowing them to care for their consumers and to protect their own interests by minimizing the risk of government regulation and interference (492). I think that referral services and other resources to inform, prevent, and help treat gaming addiction would also prove that gamers take the problems inherent in online gaming seriously and detract from the viewpoint endorsed by politicians like Yee that

gamers are immature and incapable of acting or talking rationally about problems related to their hobby (Seitz).

Developer-Centered Solutions

MMORPG developers must shoulder some of the burden for protecting their players, but they must do so in a socially responsible way that allows players to simultaneously have fun and spend money on the game while being aware of the dangers of prolonged play. The option of tweaking gameplay aspects can be a tricky problem to address because the developers could potentially cross the line between developing awareness of issues related to MMORPG play and intruding into the personal lives of their players. Furthermore, it is unrealistic to ask developers to make games "less fun," because taking away features that players enjoy could potentially cause enthusiasts to lose interest in the game and eventually put the developers out of business (Hsu, Wen, and Wu 997).

Keeping developer interests in mind, a common-sense addition related to gameplay that would be fairly easy for Blizzard to include in *WoW*'s interface is a clock or a counter that can be brought on screen with other utilities like the in-game stopwatch and alarm. The alarm is a great time-related feature, but a visual reminder of the player's current session's duration would be an excellent addition to this service. The game naturally logs the time a player has spent with the game and the user can even see the cumulative amount of time he or she has played a character since starting the game by typing "/played" in the chat window. A visual reminder of the time the player has spent

logged in would not control or chastise the player in any direct way, but at least it would be an easily accessed reminder of the current session's duration.

Promoting Parental Controls

In addition to common-sense utilities like a timer, Blizzard provides extensive parental control options for any parent or guardian wishing to regulate his or her child's time playing online. These controls vary from weekly reports of how long the child has been playing that are emailed to the parent, to giving the parent the ability to literally set up a weekly schedule for playing *WoW*. When the time is up, the child's account is instantaneously locked out of the game, and he or she either has to appeal to a parent for more time, or wait until the next day to continue playing ("Parental Controls"). These controls are also well-explained and easy to set up.

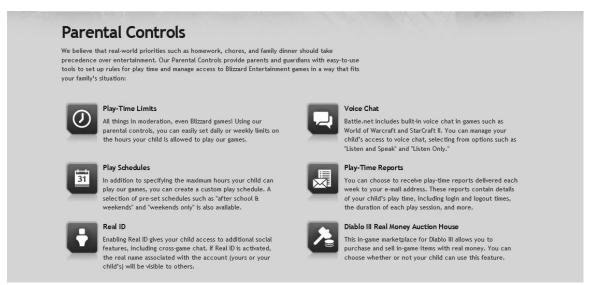


Figure 21. Parental Controls Overview. ©Blizzard Entertainment

Of course, the drawback to these controls is that they are contingent upon the parent or guardian being aware of their existence. If the gamer is unsupervised, he or she can refrain from telling a parent or guardian that these controls are available. The *Beginner's*

Guide includes a section on parental controls, but it is at the end of the book and could be easily overlooked.

The ability to literally control the amount of time that a child could spend playing *WoW* and being able to hold the player accountable for any time spent with the game without permission could go a long way toward preventing a child from becoming too immersed in an online game. Though I have already described drawbacks to this system between a parent and a child, there is also great potential for timers and play-time reports for adult gamers.

Additionally, a concerned player could track his or her time playing *WoW* by sending the reports to his or her own email address. The individual could then keep track of play time and have evidence of online sessions to discuss with any mental health professionals if he or she feels the need to seek help. The play schedule could also be a handy tool for players who worry they are playing too many hours or even for enthusiastic users who tend to lose track of time playing the game. The two big issues with non-parents using the parental controls are access or finding them in the first place and the negative connotations associated with using the parental controls to limit play. Players may be hesitant to use Parental Control features because it may seem like a way to prove that the player has a problem; potentially an addiction.

Achievements

Appealing to hardcore gamers, even in small and obvious measures, could be another avenue for Blizzard developers to take to inform the community about online gaming addiction. Though it would break the immersion, Blizzard could devise an area or

a removed section of the game where the player has to participate in a quest or read information about gaming addiction for the sake of spreading awareness and acceptance. In return for reading, he or she could get an in-game achievement, XP, or even an item for completing the quest and, ideally, reading the information provided. By nature, hardcore gamers spend more time playing their game or games of choice, and enthusiastic players in this category could overlap with players likely to become addicted to MMORPGs. Furthermore, many hardcore gamers are preoccupied with accomplishments and collecting in-game achievements.

Disclaimers and Introductory Material

Another way to engage with players about gaming addiction using technical communication could occur in the *Beginner's Guide* or in the tips that pop up as the player spends more time with the game. While the player is learning about the virtual environment, technical writers working for Blizzard could include tips on time management, resources, and groups that deal with gaming addiction and other problems. Blizzard could also add a warning or disclaimer about the health risks associated with prolonged play like fatigue, photosensitive epilepsy, wrist pain, neck pain, elbow pain, repetitive strain injuries, and obesity ("Videogame Addiction" 183). The risk for epileptic seizures in particular would be a good warning to add because of the immediate health risks associated with epileptic seizures.

The presence of disclaimers would not only allow Blizzard technical writers to take responsibility as representatives of an ethical company but it would bring Blizzard into the discussion of being an ethical company. Of course, this is not a perfect solution.

If the wording and research provided is biased against gaming, then it could potentially anger or scare away new players. Ideally, technical writers could provide information that highlights the research that has already been done on addiction and health risks, but that emphasizes the fact that players can be just as involved with the game and community by playing as long as he or she can safely afford to do so.

Community-Centered Solutions

In "Enhancing One Life rather than Living Two: Playing MMOs with Offline Friends," Jeffrey G. Snodgrass, Michael G. Lacy, H.J. Francois Dengah II, and Jesse Fagan conduct a unique study for the field of online game addiction research. They explore two different kinds of player experiences in *WoW* (1211). The first type is playing the game with friends or family members, and the second is engaging with the game and making friends alone. The results include anecdotes from players illustrating their different experiences with the game. The writers actually played the game in their study and Snogerthorn (Snodgrass) in particular shared his experienced. "Snogerthorn" was saved and made friends in-game and found himself feeling a significant obligation to spend time playing with his new friends, even when he was fatigued or when he wanted to leave Azeroth (1216).

When Snogerthorn signed in to play with an old friend from high school, his experience was far less intense and he found he was unable to disassociate from his real-life identity around someone he knew outside of *WoW* (Snodgrass et al.1217). The authors also include two different perspectives from married couples and *WoW*. The first young woman's experience playing *WoW* to connect with her husband found that the

game provided entertainment and enriched her marriage (1217). In contrast, married players whose spouses did not engage in or find playing MMORPGs fun or important found that excessive play detracted from their personal lives (1218).

The results of Snodgrass and his colleagues' survey indicate that there is a negative association between playing with offline friends and family and the risk of developing an addiction to an online game (1219). Snodgrass et al. provide a useful and practical way to potentially minimize the risk of MMORPG addiction by including real family and friends in the gaming experience. Players would be held more accountable for actions in-game, and they could not disassociate from their real lives because they would ideally have the semi-regular presence of a real-life companion in the game. Furthermore, if a player normally only plays with real life friends and family, he or she will have to plan time to play the game around many different schedules, potentially cutting back on the tendency to lose track of time in *WoW*. Of course, I must also mention that "losing track of time" is the goal of some players who use online games like *WoW* to relax. Time management as a problem relating to the possibility of gaming addiction is dependent on any player's particular circumstances.

Snodgrass and his co-writers conducted only a small study, but they describe the link between playing with real-life friends and family as opposed to finding only casual in-game friends and neglecting real-life family and friends. The articles I included about adolescent risk and online games tend to emphasize keeping track of the time that the child in question spends playing the game and, as previously shown, Blizzard has extensive parental controls available to concerned parents that include setting limits on the hours that a child can play *WoW*. Concerned parents should take advantage of

parental controls, but encouraging real-life friends and family to play could also be another way of promoting healthy, balanced playing habits and perhaps encouraging understanding on the part of parents as to why the child wants to play an MMORPG in the first place.

Community Resources

A viable way to involve the community with the issue of gaming addiction would be for Blizzard to create a forum or sub-forum that addresses social and medical issues associated with gaming. In it they could provide research that is approved by the company about gaming addiction, violence, gender issues, harassment, and hacking to name a few. A technical writer from Blizzard could also write a comprehensive guide about gaming addiction and provide tips for anxious players who worry they spend too much time online. The company could also encourage players who struggle with controlling their time gaming to anonymously share stories about treatment and first-hand accounts of their symptoms to provide pathos to the presumably drier facts and statistics about gaming addiction that researchers like Young and Griffiths have provided. Players could even form their own support groups or meet up with one another in the real world to discuss their lives and try and integrate more of their real selves into their online identities.

Finally, Blizzard could also partner with an established or emerging research group and ask for volunteers among the *WoW* community to work with them in the name of video game addiction research. Ideally, players would remain anonymous and consistently work with mental health and video game experts to get a broader idea of

addiction and its impact percentages among the community by encouraging casual players to participate alongside their more dedicated peers. Part of the service would include referrals for any gamers who feel their play is problematic to assist them in receiving the help they need. A joint research effort would also prove that Blizzard is a company that takes social responsibility and gaming addiction seriously and prioritizes improving its games and promoting healthy players.

The solutions that I have proposed based on my experiences with the game and reading materials about gaming addiction are certainly not going to appeal to all players who are in danger of or are struggling with gaming addiction. Bringing information about health into the game in question could encourage some players to ignore time management partially because of the aforementioned distrust and disdain that some vocal members of the gaming community express toward researchers who wish to learn more about gaming addiction.

One of the best ways to get players to acknowledge that they may have a problem or be developing one would be to highlight the importance of context in a gamer's life when determining if he or she has a problem playing. In other words, putting the emphasis on the perspective that many factors potentially cause an individual to disassociate from the real world in favor of a virtual one could alleviate some distrust that gamers may feel about being attacked for their gaming habits. All of the strategies mentioned should encourage players to not feel ashamed or helpless if they find that they cannot control the amount of time spent playing a game like *WoW*.

VII. CONCLUSION

I wrote this thesis to tie together two interests of mine with the field of technical communication. Playing video games has been a hobby and research interest of mine since I was an adolescent and I have been interested in mental health and disability outreach since a similarly young age. My family has been a big part of these interests because it was my sister who taught me how to play games, my mother who introduced the concept of accepting, understanding, and helping people who suffer from mental or physical difficulties, and my stepfather who taught me the importance of treatment and understanding the features of mental illness on a cognitive level. I researched the concept of video game addiction and *World of Warcraft (WoW)* to better understand the problem and offer potential solutions using technical communication to educate Blizzard's MMORPG community about gaming addiction and understand that it is an issue worthy of concern and action but not in an attempt to infantilize players who love online games or posit that playing online games will always lead to an addiction.

Gaming as a hobby and meeting new friends in an online environment is a growing trend judging by Blizzard's 10 million subscribers and *WoW*'s commercial success since its release in 2004. I agree with researchers and psychologists who state that more research is needed to better classify online gaming addiction and provide sufferers with consistent, successful treatment, but I also think that the research needs to continue to be done with the cooperation of the online gaming community; by people

who understand the positive aspects of gaming and who value the fun and potential social interaction it can bring to players. Understanding why people enjoy games can be adequately balanced with concern about the players who may become addicted or who suffer from the physical symptoms of playing for too many hours over months and years. If the developers and the players acknowledge and work to promote mental and physical health in the future, the opinion that gamers are immature and unworthy of being heard can become obsolete and gaming can continue to build its reputation as a valid and unique art form.

To reiterate, technical language plays a central role in a socially constructed community like the one that I have briefly described in WoW. Blizzard could benefit from hiring technical writers to do research on user needs and provide new, more comprehensive resources for understanding the MMORPG that address what users actually need at different experience levels with WoW that are freer of player biases that reinforce the attitude that novice or casual players are somehow not a worthy part of the community. Technical writers could also contribute to a potential effort to inform the WoW community about gaming addiction that would emphasize social responsibility and prove that gaming companies are interested in being part of the solution to mental and physical health problems inherent in gaming for some players. I have summarized my recommendations specifically about how technical communication can help improve WoW guides and help information for new players and curtail the risk of addiction in Table 8 below. I again emphasize the fact that Blizzard could greatly benefit from hiring technical writers to act as user advocates and inform the community about the risk of gaming addiction.

Table 8. Technical Communication Recommendations

Solution	Description
HTML Guide	Technical writers could create an easily updated guide much like the <i>Beginner's Guide</i> made by Branger et al., but in a digital format that is easier to update to keep new and current <i>WoW</i> players informed about game mechanics.
Tutorials	Developers could work with technical writers to create in-game tutorials to teach new players about battle mechanics and other important strategies within the game environment with the assistance of text and voiced prompts and instructions.
Terminology Guides	Technical writers could investigate the forums and ask for user feedback on parts of the game that could benefit from additional, official information, especially about terms and jargon made and used by the players. Additionally, the history of the game and its fictional story could use more explanation either in the game setting or in supplementary materials that come with the game and on Blizzard's official website.
Health and Addiction Information	Blizzard could hire technical writers to research and work with academics and mental health experts well-versed in studies on gaming addiction and compile a post or document describing social and physical symptoms of gaming addiction. Of course, Blizzard would have to consider liability issues that come as a result of mentioning the possibility of becoming addicted to <i>WoW</i> . It would also be potentially helpful for technical writers to use the <i>Beginner's Guide</i> or loading screens in <i>WoW</i> to bring attention to social utilities like guilds and how busy players can find guilds that allow them to combat the sense of obligation that they may feel as part of an established group in the game. Specialized guilds and understanding in-game peers can assist players to better balance time playing <i>WoW</i> with real-life demands.

Table 8 - Continued

Promoting Parental Controls	Technical writers could also draw attention to
	the parental controls for the sake of concerned
	parents and encourage adult players to also
	consider using these controls to monitor their
	time in WoW if the player is worried that he or
	she is developing an addiction.

Interestingly enough, the part of the story I have experienced with *Mists of Pandaria* could easily relate to the two major issues I cover in my thesis. In the storyline that goes along with the expansion, the Alliance and the Horde both discover the isolated Pandaren continent and immediately become embroiled in conflict over who has the right to be on the new lands. The Pandaren are a neutral race, partially because their continent is different from the rest of Azeroth. Pandaria has the ability to take negative emotions and give them a physical form, thus emotional equilibrium is required for any being on the continent.

The Pandaria storyline makes a point to show that the never-ending conflict between the Alliance and the Horde is futile. Similarly, the enmity some players hold toward their casual or newer peers is pointless and the community as a whole would improve if attitudes about new players being inherently bad start to change. Of course, a lack of hostility from all players is an improbable goal. Instead, improved tutorials and guides from Blizzard and consistently defined terminology would go a long way toward equalizing all players in terms of skill.

Finally, the storyline's emphasis on emotional moderation because the alternative is to suffer actual harm can easily be related to the concept of gaming addiction. Players must be encouraged and encourage others to take *WoW* and games like it in moderation,

only spending the time they can afford in the online environment and seeking help if any player feels he or she is developing a problem. Addiction is stigmatized no matter the substance or behavior the sufferer is reliant upon. Perhaps the gaming community could be the first to take a notable step toward acceptance and understanding. It would certainly be a welcome change.

APPENDIX A

GLOSSARY OF TERMS RELATED TO WORLD OF WARCRAFT AND MMORPGS

Achievement: An intangible reward in *World of Warcraft*. Achievements are markers that prove a player has accomplished certain tasks in the game. Multiple achievements indicates that the player has attained some degree of mastery in the game.

Alliance: In *World of Warcraft*, the Alliance is one of two major factions in the in-game world of Azeroth. The Alliance has a reputation for being more diplomatic than the Horde, and its native races include Humans, Dwarves, Night Elves, Gnomes, Draenei, Worgen, and the neutral Pandaren.

Alt: A common term for a secondary character controlled by a single user. "Alts" are also called "toons."

Chat Channels: "Channels" that display text between players in the "chat box" in the user interface. Chat channels can be extremely private, such as an interaction between two players, or a single chat channel can include thousands of players, such as the "system messages" channel controlled by Blizzard Employees.

Class: In *World of Warcraft*, class describes the abilities and stats of the chosen character.

Class is usually tied to the player's "role" within a group and varies to include classes that are focused on dealing damage to enemies from afar, classes that allow characters to

fight in close range of the enemy, and even classes mostly devoted to healing themselves and other players.

Expansion: Major content added to an online game at an added cost. Expansion content includes raising the "level cap" to allow players to grow even stronger, new classes, races, bosses, areas to explore, and dungeons to beat.

Guild: An official group of players within *World of Warcraft*. Belonging to a guild can confer many benefits to include the ability to gain levels more quickly or to save gold. A character may only belong to one guild at a time.

Horde: In *World of Warcraft*, the Horde is one of two major factions in the in-game world of Azeroth. The Horde has a reputation for being more chaotic than the Alliance, and its native races include Orcs, the Undead, Tauren, Trolls, Blood Elves, Goblins, and the neutral Pandaren.

Immersion: Immersion, in this sense, indicates how well a player is able to disconnect from reality to experience the game more as a character in its fictional world than an outside observer.

Instance: Any activity that a player or group of players experiences without the interference of uninvited players. An example of an instance is a Dungeon: a series of rooms with numerous enemies that yield potentially great or rare items and equipment.

Level: A number denoting the player character's strength and progression in the game.

Characters gain levels by acquiring Experience Points (XP). As the character gains levels,

his or her overall stats improve and he or she gains access to better skills, items, activities, and harder areas of the game.

Macro: Typed commands that allow the player to trigger abilities and functions in a fast, complex manner (Branger et al. 251).

Mob: Short for "Mobile Object Block" or just "mobile." This refers to any moving computer-generated entity (Branger et al. 199).

Noob, Newb: A term for a new or inexperienced player. Often used as an insult denoting a lack of knowledge and experience with the game.

NPC: Non-Playable Character. A Character that is pre-programmed to act in a certain way. Used for utility in a game environment and to set the player off on quests.

Party: Two or more players who band together in an official group to complete challenges and obtain rewards. Parties must share any items or XP gained from participating in battles together, but players can successfully complete quests or battles that are far more challenging and rewarding than the type of content a single player is capable of beating.

Patch: New content added to the existing game to enhance the experience, alter content, or fix problems. Patches do not require the user to purchase an expansion, but some patch content is contingent upon having an expansion.

Profession: Optional game content that usually involves the player searching for materials and creating unique items for his or her character or for profit. "Mining" is an

example of a "gathering" profession or one where the player goes into the game world and literally gathers specialized materials that appear randomly in the environment.

PvP Ladder: World of Warcraft's ranking system for PvP combat. The PvP ladder includes the most successful players in Battlegrounds and Arenas.

PvP: Player versus Player. Indicates combat in which player-controlled characters fight each other. PvP combat can be done in an official capacity for rankings, or out in the game world for fun.

Quest: A task the player must complete for a tangible reward. Rewards include items, XP, and achievements. Usually given by an NPC.

Race: When used in reference to *World of Warcraft*, race describes the physical makeup and inherent attributes of a character type. Terms such as "Human," "Gnome," "Orc," and "Troll" describe different races in the game. Race determines the player's faction and will limit the class choices available to a particular character.

Realm: A world-sized "instance" including all *World of Warcraft* content. Each realm is associated with a particular server, and realms are localized to group players who speak the same language and live in the same part of the world. Additionally, realms are associated with particular playing styles to include Player versus Player, Player versus Environment, Role Playing, and Role Playing Player versus Player.

Toon: A common term for a secondary character controlled by a single player. Also called "Alt."

Wowhead: A *World of Warcraft*-exclusive website made and maintained by fans of the game. Contains detailed information, especially about in-game quests.

Wowpedia: A *World of Warcraft*-exclusive website made and maintained by fan s of the game. Follows the general "wiki" format and contains detailed information about many aspects of the game to include elements of the fictional story.

XP: Experience Points. XP is granted to a player upon defeating monsters, completing quests, or participating in other activities in the game. Experience points go toward gaining "levels" and progressing in the game by making the player character stronger.

APPENDIX B

BLIZZARD ENTERTAINMENT'S VIDEO POLICY AND COPYRIGHT INFORMATION FOR WOWPEDIA

Note: Blizzard Entertainment's Video Policy, only available online through Blizzard.com, is too difficult to read in screen captures alone. I have taken the text directly from the policy and replicated it below.

The original webpage can be viewed at http://us.blizzard.com/en-us/company/legal/videopolicy.html. This information was taken 6 Apr. 2012.

BLIZZARD VIDEO POLICY

Blizzard Entertainment strongly supports the efforts of its community members who produce community videos (referred to hereafter as a "Production") using video images, footage, music, sounds, speech, or other assets from Blizzard's copyrighted products ("Blizzard Content"), subject to a few conditions.

The Fundamental Rule

First and foremost, note that except as specifically provided herein, Blizzard Entertainment requires that the use of Blizzard Content must be limited to non-commercial purposes.

What this means

As a community content creator, you are permitted to create video productions using Blizzard's Content, and to distribute them freely on your website, or on other websites where viewers can freely view your Production.

Limitation of Usage

Neither you nor the operator of any website where your Production(s) may be viewed can force a viewer to pay a "fee" to be able to view your Production(s).

Regarding Websites and "Premium Access"

We understand that many third party websites have a "free" method to see their video content, as well as a 'premium' membership service that allows for speedier viewing.

For clarity, please note that as long as the website that hosts your Production provides a free method to allow viewers to see the Production, Blizzard Entertainment will not object to your Production being hosted on that site, regardless of the site's "for pay" premium service plans.

Guidelines for distributing Productions with Blizzard Content

Note that Blizzard Entertainment's restriction that Productions be limited to "non-commercial" uses also means that you may not license a Production you have created to another company for a fee, or for any other form of compensation, without specific written permission from Blizzard Entertainment to do so. Blizzard Entertainment reserves the right to use its products for all commercial purposes. The only exceptions to this rule are if you participate in partner programs with YouTube, Justin.tv, Blip.tv, Own3d.tv, or Ustream.tv (the Production Websites) whereby a Production Website may pay you for views of a Production if you are accepted into their partner program.

Your Production should meet the rating guidelines for "T" rated Productions

To maintain and protect the image of our games, Blizzard also requires that Productions maintain the "T" rating that has been given to its products by the ESRB, and similar ratings received from other ratings boards around the world, and that these standards are taken into account during the creation of your Production.

Blizzard support of Film Festivals, Contests, and Broadcast opportunities

If you have created a Production that meets the guidelines above that you would like to enter into a film competition or festival, or if you encounter the opportunity to have your Production shown on television, Blizzard Entertainment is happy to support your efforts by, pending review and approval of your Production, providing a content use license for your Production.

If you are a website operator, film festival organizer, or broadcaster and you are interested in running a "Community video contest," where Productions that use Blizzard Content will be allowed entry into the contest, we are happy to inform you that Blizzard allows websites, Film Festivals, and Broadcasters to run video contests as long as the "total prize package" (cash and prizes) for the contest does not exceed \$500.00 USD. If, however, you are interested in running a video contest that will feature Productions that use Blizzard Content where the total value (cash and prizes) of all of the prizes exceeds \$500.00 USD, you will need to obtain a license from Blizzard in order to hold the contest.

What is a content use license?

In the event that you are required to prove to the contest organizer, festival committee, or television broadcaster that you have Blizzard Entertainment's permission to use Blizzard Content in your Production, a content use license is provided. This license serves to prove you have the rights to use your Production materials specifically for that event.

Important note

A content use license is not unlimited: it permits the use of the Blizzard materials in your Production only for the 'event' that the license has been issued for, and in the specific methods outlined in the license.

Educational Use of Production Materials

Blizzard Entertainment supports the use of its game assets for educational purposes, and you are welcome and encouraged to create a Production for a school project, master's thesis, etc. All limitations above still apply to Productions created for educational purposes.

Inclusion of Sponsor Names, Logos, or Affiliates

Knowing that there are organizations out there willing and ready to support producers in the video community, the mentioning of producer or contest sponsors, through methods such as logos at the beginning of the production, or the verbal mentioning of sponsor names, is permissible.

However, you may not include more than 10 seconds total of sponsor promotion per

Production. Additionally you must visually include the text "Sponsored By" when being displayed. Simple text 'credits,' included at the end of your Production and unaccompanied by logos, slogans, or other methods of visual isolation, are not bound by this restriction.

For further information

In the event that you have any questions about your Production in regards to Blizzard Entertainment's Video guidelines or would like to inquire about obtaining a license as described above, feel free to send us a note at community-videos@blizzard.com.

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