University of Alberta

Serious Research? Exploring the Information Behaviour of Avid Players of a Massively Multiplayer Online Game

by

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ABSTRACT

This study used in-person interviews and observation sessions to explore the information behaviour of four players of the popular Massively Multiplayer Online video game *World of Warcraft*. The goal of the study was to present gaming profiles of players, in order to understand how they find, use, and share game-related information to enhance their enjoyment of gameplay and develop their identity as knowledgeable participants within the affinity space of the game. Findings indicate that even though there was a core set of familiar strategies and resources used by all four participants to navigate the game, actual information use varied greatly according to each individual's motivations for play and level of commitment. Furthermore, information behaviour was bounded to enrichment of the gaming experience, complicating the issue of assessing how these practices would transfer over to academic or professional contexts.

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CHAPTER 1

Introduction

One increasingly popular genre of video game to emerge over the last few years has been the Massively Multiplayer Online game[1] (MMO). The descendents of the text-only Multi-User Dungeons (MUDs) as well as of live action role-playing games like *Dungeons & Dragons*, MMOs are persistent 3-D virtual worlds in which thousands of players simultaneously interact and play together through the Internet, 24 hours a day. The predominant setting of many MMOs is a Tolkien-esque high fantasy world (although science fiction motifs and real-life simulations have begun to emerge, the most popular games to date have been fantasy).

MMOs are often described as being virtual worlds as much as they are games (cf. Castronova 2005). Well-known games in the genre, such as *Ultima Online*, *Everquest*, and *World of Warcraft*, are notable for their immense size, open-ended structure, and emergent culture and economy. In contrast to the classic adventure game structure in which the main character progresses through a linear plot structure to a definable end, MMO players are given relative freedom to explore the game world, complete quests, and interact with other players. Far from offering socially isolated single-player gameplay, most MMOs are specifically designed to require cooperation and social interaction between players; the abilities of different characters complement each other, meaning that the success of one player often depends on the abilities of others, and therefore everyone is encouraged to group together and help out. The game also facilitates socialization by allowing players to create and join long-lasting player

[1] Also referred to as Massively Multiplayer Online Role-Playing Games (MMORPG). MMOs are commonly abbreviated as MMOG as well.

organizations (commonly known as guilds). Guilds often vary according to motivation; some may be focused on achieving goals in the game (taking on a business-like overtone) while others may be devoted to socialization between friends and family.

One of the most culturally and socially significant aspects of these games is the high level of engagement and dedication they inspire in their players. Research by Griffiths *et al.* (2003), Seay *et al.* (2004), and Yee (2006a, 2006e) has found that players of various MMOs spend an average of between 15-22 hours a week playing their game of choice (with some individuals devoting upwards of 60 hours a week or more). Public perception of MMOs often relegates them to the realm of trivial fun at best (and destructive addiction at worse), but avid players treat them as very serious endeavours and invest a considerable amount of emotional and cognitive energy in them. As players move from the easier zones in the world to more complicated ones, and finally into the 'endgame' where grouping with other players becomes a necessity, players are increasingly reliant on their guild, a social commitment that, in turn, reinforces a continuing level of participation in the game (Seay 2004; Duchenault *et al.* 2006a, 2007). Involvement with a single MMO often extends over a number of years, with some individuals forming enduring friendships with other players.

The sheer complexity of most MMOs turns them into information-rich social environments, in which players are often required to seek out, accumulate and share knowledge about the game world, in order to increase the status of their characters in-game so that other players want to group with them (Taylor 2003, 2006; Silverman 2006). Although much of this knowledge is picked up through embedded practice, observation, and communication with other characters, a large proportion of players have

been found to spend a significant amount of time outside of the game world as well, seeking game-related information on the Web, organizing group activities, and actively producing content for other players (cf. Yee 2006b; Steinkuehler 2005; Taylor 2003, 2006). In many cases, the databases, maps, guides and other resources produced by players are much more accurate and comprehensive than the official documentation provided by the game publishers themselves (Steinkuehler 2005), while fan-submitted fiction, art, and videos have added considerable layers of immersion to the overall experience (Lowood 2006; Pearce 2006, Taylor 2003, 2006).

Study Overview

It has been suggested, then, that MMOs inspire cultures of both consumers and producers (cf. Pearce 2006; Yee 2006d), becoming fictional worlds with very real social implications in which players continue to play for years, slowly accumulating material (virtual) goods while developing knowledge, status, and social networks within the realm of the game (Jakobsson & Taylor 2003; Taylor 2003, 2006). The information that players need to build up the level of expertise necessary for serious play is dispersed across the game world and all over the Web, encompassing various levels of quality and coverage and on a diverse range of game topics. Yet almost nothing is known about how MMO players actually find, use, and share information in these contexts as well as what meaning these behaviours have for their gameplay and their overall enjoyment of the activity. Although ethnographic studies have explored social activities and learning processes in MMOs, few to date have provided in-depth profiles of players' histories with a particular game, nor have any explored how motivation and enjoyment of the activity affects information acquisition and use at an individual level of analysis.

This absence is a significant gap not only in game studies, but also in human information behaviour research. Coming from the perspective of library and information studies (LIS), Hartel (2003) has discussed how research on information behavior has focused almost entirely on how individuals acquire and use information in academic and work contexts while typically ignoring leisure as a domain of study, despite the fact that information seeking and use is an inherent part of many leisure activities. Leisure activities are atypical from most other contexts because they involve "a segment of everyday life that is information-rich, where people happily make significant effort to be informed" (231), yet how this motivation actually affects behaviour is not known.

The present study aims to better understand the information behaviour involved in MMO gameplay as a leisure activity, by examining the practices, values, and motivations of four avid players of Blizzard Entertainment's *World of Warcraft*.[2] As we will see, each participant enjoyed playing the game for very different reasons, and the circumstances under which these players chose to find, use, or even avoid game-related information was closely related to their motivations for play. At the same time, their habits and preferences were often heavily mediated through their interactions with other players, serving to draw them further into the overall culture and ethos of the game.

Research Questions and Design

The study itself comprises four exploratory case studies of avid *World of Warcraft* players, looking at their histories as players and the role of information in their gameplay. For purposes of this research, avid players were defined as those who regularly spend

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[2] An overview of the game is provided in Appendix A.

more than ten hours per week playing the game. The specific research questions were as follows:

1. How do avid players use information to enhance their enjoyment of the gaming experience?

2. How do these players use information to construct their identity as participants in the social world of the game, and how does that construction affect their gaming experience?

3. What do players see as the most valuable information resources for the game, and what criteria do they use to evaluate the quality of information they receive?

4. To what extent is players' information behaviour influenced by the modeling or apprenticeship of those behaviors of other players?

5. How do these players perceive their research and knowledge? Do they feel they are experts of the game? Do they feel that what they have learned is transferable?

The research questions, methodology, and analysis were informed by a general social constructivist approach. Although the study looks at unique playing styles, behaviours, and preferences of four players and how they find and use information to construct meaningful gameplay, it was clear from earlier research that many of these habits were likely influenced by relationships and social interaction within the game and by the cultural practices of the gaming community at large. Social constructivism " is a metatheoretical position which argues that, while the mind constructs reality in its relationship to the world, this mental process is significantly informed by influences received from societal conventions, history and interaction with significant others" (Talja, Tuominen & Savolainen 2004, 81). It considers the learning and meaning-making activities of an individual as firmly situated within social worlds of communication, activity, and practice, and explores how these factors inevitably influence how one interprets personal experience.

Under the broad heading of social constructivism, three theoretical frameworks were used to guide data collection and analysis. The first framework, the Serious Leisure Perspective (Stebbins 2007) was used to explore the scope of MMOs as a leisure activity, and to investigate how gameplay and related behaviours could be conceptualized as serious leisure activity, requiring significant knowledge and skill acquisition. The second theoretical framework was Dervin's Sense-Making (Dervin 1992, 1999; Tidline 2005), which was used to guide exploration of the topic area in terms of the personal perceptions of the participants, and what meaning they derive from game information. This approach, described as both a theory and methodology, looks at information behaviour in terms of how individuals use information to bridge discontinuities in understanding or knowledge (1992), and also by focusing attention "on practices rather than person" (1999, 731). The final framework is situated learning theory (Vygotsky 1978; Lave & Wenger 1991; Gee 2003, 2007), which looks at how learning and cognition are situated within the social practices of a "community of practice" (Lave & Wenger 1991) or "affinity space" (Gee 2003). In the context of this study, situated learning theory was used to interpret how the information behaviour of individual participants was mediated and influenced by the community of players at large. These frameworks are discussed further in Chapter 2, along with a review of relevant library and information science and game studies literature.

In terms of research design, the study used triangulation of qualitative methods to ensure credibility of results. The primary method of data collection was an in-depth, semi-structured interview with each participant, conducted in person at his or her home. This method was complemented with observation of a typical game-playing session with

each participant, in which tacit examples of the knowledge, skills and behaviour were analyzed. Finally, textual information resources identified by participants as valuable were informally examined to contextualize the discussion further. A fuller explanation of the study's methodology is provided in chapter 3.

The Participants

A great deal of writing about video games tends to collapse players into a homogeneous vision of a "gamer", often failing to differentiate between varying levels of commitment or explain what individuals enjoy most about the games they choose to play. One of the goals of this study was to situate participants' information behaviour within the larger context of gameplay, by understanding their overall preferences, playing styles, and histories with the game. Participants' full biographies are provided in chapter 4, but I will offer a brief overview here.

The first participant, Katie, was an Arts undergraduate who was introduced to the game by her sister. As the least experienced player in the study, Katie's perspective as a relative outsider to the larger culture offered a counterpoint to the more extreme play-styles of other participants (most notably Rick). Despite her past experiences, she was nevertheless an avid player, stating that she became "hooked" to *WoW* through being able to explore the vast space of the virtual world. Her guild was unusual in that it consisted of only a handful of friends who also all knew each other in real-life (in contrast to some guilds that have consist of several hundred relative strangers). At the time of our interview, she had recently reached the endgame, having quickly passed her friends in experience level. Now that she was there, however, she was finding it a little boring,

because much of the endgame content she found interesting required teaming up with other players, and she was still waiting for her guild members to catch up to her.

Rick was the guild leader of a fairly competitive high-level raiding guild. In this role, he took on many extra responsibilities that normal players do not have, such as coordinating group events, researching strategy, recruiting new guild members, and negotiating conflict between existing members. He had a deep interest in the underlying mechanics of the game, even using special software to calculate damage numbers in order to optimize his performance as well as that of his guild. Although he enjoyed being able to socialize with other people without leaving the house (thereby allowing him to take care of his children at the same time), he admitted that the social side of the game was not enough by itself to keep him interested, because he was always looking for more goals to complete. He had been playing the game consistently since its launch three years earlier, and had yet to run out of challenges. Because his playing time was limited, he was continuously searching for information that would give him a competitive edge or speed up his gameplay.

Dan was a long-time player of video games and table-top role-playing games. He was the only person in the study who showed a strong interest in the combative Player vs. Player (PvP) aspect of the game, stating that there was nothing better than being able to face off against another player and "put him into the dirt". He spent plenty of time researching how to improve his character to this end. Like Rick, he had also been playing the game since its launch, and although he dabbled in endgame raiding, he preferred PvP because it required less of a time commitment. Although Dan had started

WoW with a group of real life friends, most of those friends had quit playing soon after and he had since developed a handful of extremely close friendships through the game.

Adam had been playing for over two years at the time of our interview. During his first year of play, he had spent much of his time experimenting with a range of characters, which meant that he now lagged behind most players in terms of actual level progression. He was now trying to catch up so he could participate in endgame raids, but was struggling with keeping himself motivated enough to move through content that he found to be repetitive. Adam was probably the shyest and least socially connected of the four participants, very self-conscious of offending other players or appearing incompetent. Although he belonged to a large guild, he only grouped up with two of his real-life friends on a regular basis (one of whom introduced him to the guild). Adam took an active interest in the back-story of the game, having read all the *Warcraft* novels, and was pushing himself to reach the endgame because he was eager to fight high-level bosses who he knew from "the lore".

Analysis of Information Use

In Chapter 5, I explore the role of information in participants' gameplay. There were enough similarities across participants' accounts to delineate four basic categories to represent the different kinds of information being used. These categories are:

- Goal-seeking information – simple, point-of-need information needed when a player gets "stuck"
- Strategy – knowledge built up over time about how to navigate the world and defeat particular enemies (playing strategy) and about how to play one's character (character-building strategy)

- Social information – General awareness of the activities and reputations of other players and guilds on one's server
- Cultural information – any information related to learning the culture and ethos of the game, such as specialized vocabulary, discursive practices, inculcation of values, and discovery of valuable texts and resources.

Despite these commonalities in types of information used, there were large differences between participants in terms of how frequently some types of information were needed, how useful that information was, and how it worked in combination with each participant's motivations for play.

In Chapter 6, I discuss the findings in terms of the initial research questions, examining how participants' information behaviour had perceivable effects on their enjoyment of gameplay, by allowing them to maintain a consistent level of achievement as well as develop the knowledge, practices, and values necessary to engage meaningfully in the affinity space of the game. Indeed, participation in the game realm begins to take on the form of a serious leisure career, with players learning how to effectively find, use, and communicate information that they receive from other players and information resources, as well as evaluate it according to their own goals. While information seeking emerges from the goals of the player, there is evidence to suggest that the dominant ethos of the game encourages identification with a particular play style typified by achievement factors.

I conclude the study in Chapter 7 by discussing the implications of this particular form of leisure information behaviour as a bounded phenomenon, defined primarily by its unique potential to increase enjoyment in gameplay rather than by traditional measures of accuracy or quality. Although this study certainly provides an in-depth understanding of

several individuals' experiences with MMOs, the transferability of players' habits to other contexts is difficult to ascertain for sure.

The Role of the Researcher

Before moving on to the next chapter, I must first describe my role as both player and researcher. Taylor (2008) suggests that one problem with current MMO research is that researchers fail to situate their own gameplay when describing and interpreting the results of their research, even though contemporary "real-life" ethnography considers this interaction with the object of study to be increasingly important for authenticity of the description. Although I address issues of confirmability in Chapter 3, I will provide a short biography of myself as a player of *World of Warcraft* here to supplement my interpretation of the four participants.

Several months prior to beginning this project, I decided to pick up a copy of *WoW*, at the insistence of a very close friend, to play over the Christmas holidays while I was on a break from university. My own video game experience amounted to playing the occasional first-person shooter or adventure game. I was generally not interested much in role-playing games (RPG) because of the time involved in learning the intricacies of each game, although I had played one previous MMO (*City of Villains*) for about a month before getting bored with it. For the most part, however, I had been a dabbler in most video games, often not patient or willing enough to commit the time necessary to follow a game through to completion.

In beginning *WoW*, I recall being amazed by the size of the world and the lush and colourful 3D environment, but what truly drew me in was the smooth gameplay and the fun of grouping with other players (including my friend, who had begun a new

character so we could play together). Whereas I felt that other RPG-style games were rather time-intensive at the uptake, *WoW* had a simple learning curve to begin with, and by the time I encountered any significant difficulties I was already involved enough in the game to feel compelled to seek out information to solve problems or improve my technique. Much of my early information behaviour was inherited directly from my friend (who had been playing for almost two years prior to me joining), and who introduced me to a couple of player-submitted databases and explained the best places on the official *WoW* website to find valuable information.

As I became more familiar with the kinds of meta-game resources available to players, I constantly sought out more information. I was definitely impressed by the sheer number of meta-game information resources available, not to mention their depth and breadth of coverage. With other video games, I had never felt the need to seek out help beyond the occasional walk-through or hint, but with *WoW* I began to perceive that it was absolutely necessary to keep up. Many of the players I grouped up with were in the process of leveling up their second or third character (or more), and had played through each dungeon encounter several times. Much like Adam and Katie, I did not want to appear incompetent, so I felt obliged to know how to play my character and contribute meaningfully to the group. In terms of Bartle's (1996) four player types (which are discussed in more detail in Chapter 2), I would classify myself as an achiever or explorer. I have no problems with using information to structure my playing time and make it more efficient, but at the same time I have very little interest in developing an in-depth understanding of game mechanics. Occasionally, I do step back from this stance

and take an hour or two to enjoy the world itself, to poke around in its hidden corners and see what is there.

I have only one character that I play regularly, a gnome mage that I finally leveled up to 70 after fourteen months of play. My friend and I joined a large casual guild of about two hundred members, which I recently left to join a raiding guild (I quickly left that one as well because I was not able to devote the time to serious raiding). In the beginning, my playing time was approximately 5-10 hours a week on average, but once I reached level 70 it dropped significantly. My endgame experience closely parallels that of Katie, in that I do not have the time, motivation or social network necessary to become seriously involved in PvP content or raids. I still run the occasional PvP battleground, but my interest in the game has waned to the point where I only log in once or twice a month. Unlike Dan or Rick, I have not played regularly enough to maintain any significant in-game friendships.

Although my early months of play were extremely rewarding, I sense that my career in *WoW* as a leisure activity has been overshadowed by my interest in it as a research topic. My perspective as a player (although not an avid player) has proved valuable in that it has given me a broad exposure to the information that is out there, as well sharing a common understanding with participants about what is engaging about MMO gameplay as an activity.

CHAPTER 2

Review of Theoretical Frameworks and Related Literature

MMOs are an exciting new technological phenomenon, a hybrid genre of video game and virtual world that has attracted millions of players worldwide. As the descendent of text-based Multi-User Dungeons (MUDs) and table-top *Dungeons & Dragons*-style role-playing games, MMOs have exceeded the popularity of their predecessors, in sheer economic numbers as well as mainstream cultural relevance. Whereas early MMOs like *Ultima Online* and *Everquest* logged several hundred thousand users at the height of their popularity in the late 1990s and early 2000s, newer games like *Lineage I & II*, *Runescape* and *World of Warcraft* now report millions of players (Woodcock 2008). Meanwhile, the number of new games entering the market has multiplied almost exponentially, with well over fifty graphical MMOs emerging in the last ten years alone (many of which are still running today).

World of Warcraft in particular has been a runaway hit of the genre. With over 10 million active subscribers, the number of *WoW* players more than doubles that of the next most popular MMO (*Lineage I*), and accounts for well over half of all MMO players worldwide (Woodcock 2008). Intertextual references to the game have permeated throughout popular culture, even forming the basis for entire episodes of the television shows *South Park* and *The Simpsons*. Its meteoric rise in popularity has not come without controversy, as media reports of excessive play and online addiction have become more prominent as well.

As both video games and MMOs have gained in popularity, so has scholarly interest in the medium. Over the last ten years, the amount of research has exploded.

The field now known as game studies has become increasingly interdisciplinary, with studies emerging from literature and film studies, new media studies, psychology, sociology, education, law, economics, and, of course, game design. Research on the phenomenon has been necessarily broad, drawing on theoretical perspectives from a number of disciplines to explore the social and cultural implications of this new medium. This study is no exception in that regard, having been informed by interdisciplinary research emerging from library and information science (LIS) as well as that from game studies. Although many studies have examined learning processes in MMOs and video games, only one study (Adams 2006) has explicitly considered players' information behaviour in these contexts.

I begin this literature review by exploring the related information behaviour research that has emerged from LIS over the last thirty years. From there, I will move into a brief overview of video game research, highlighting some of the major trends, before moving directly into the substantial body of research focused specifically on MMOs. The final section will explain in more depth the three theoretical frameworks that were used to guide data collection and analysis in this study.

Library and Information Science

Library and information science research has traditionally dealt with the collection and organization of information, as well as the development and use of information retrieval systems. In the last thirty years, however, the field has shifted towards studying information from a user-based perspective rather than a system-based one (Kuhlthau 2004; Case 2007). User-centered studies began embracing constructivist learning theory and qualitative research methods, moving away from the positivist

tradition of counting users and evaluating information systems according to measures of precision, recall and relevance. This shift has resulted in expanded understanding and theoretical knowledge of how information exists in human society, and has led to the development of many important models in information research (Kuhlthau 2004; Wilson 1999). The LIS field, starting with straight search behaviour (how users retrieve documents from an information system), has expanded outwards to include all aspects of human information behaviour (Wilson 1999), which can be loosely defined as all practices and behaviours related to the acquisition and use of information.

Historically, an important factor in most information research was defining the exact nature of information and information needs. Definitions of information varied widely, from pure data transmitted as a signal (Shannon & Weaver 1949) to constructed perceptions of reality based on both external signals in the environment and internal interpretations (Dervin 1977). Case (2007), in his review of various definitions of information, describes several aspects of the concept that have proven problematic for many researchers (utility, physicality, structure/process, intentionality, and truthfulness), but ultimately concludes that a universal conceptualization of "information" is likely not possible. For his part, he adds his own definition that is broad enough to avoid many of these conceptual problems:

> *Information* can be any *difference* you perceive, in your environment or within yourself. It is any aspect that you notice in the pattern of reality. (5)

The present study, however, uses Dervin's (1977) definition of information, a three-part definition consisting of 1) objective information, external to an individual; 2) subjective information, within an individual; and 3) sense-making information, the process by which

the individual bridges the first two kinds of information. Further description of this definition is given in the methodology chapter.

Conceptualizing the nature of information needs is another major debate among information researchers. One of the best-known conceptions comes from Taylor (1968), who argued that information needs operate at four distinct levels:

- Visceral - the user experiences "a vague sort of dissatisfaction" without recognizing that they have a need
- Conscious - the user recognizes the need and has a mental perception of it grounded in thought
- Formalized - the user is able to rationally articulate what they need
- Compromised - in which the user modifies his formalized need in order for it to be understood by the particular information system

In contrast, Belkin, Oddy & Brooks (1982a, 1982b) describe an information need as being an expression of an Anomalous State of Knowledge (ASK). An information need, in this context, often cannot be articulated to the system as a compromised or even a formalized need as Taylor theorized, because it exists as an anomaly in the user's knowledge, with that user being "unable to specify precisely what is needed to resolve that anomaly" (1983a, 62). Information-seeking becomes a dynamic activity in which a gap is resolved between the knowledge state of the user and the information needed, through users describing their state of knowledge rather than describing a need.

Dervin's Sense-Making approach (1992, 1999; Tidline 2005) draws upon the same terminology of bridging knowledge gaps, yet over time has also come to conceive of the process as a more holistic experience existing within a continuum of human experience, inextricable from temporal and spatial contexts. Information and information needs do not exist as formalized 'things' that are sought out or resolved; instead,

individuals experience discontinuities in reality, and they use information and communication to make sense of their reality.

Wilson (1981) argues that the term "information need" itself is problematic, because it often refers to needing information to solve another more basic need, be it physiological, cognitive, or affective. What are exhibited are not information needs, per se, but information-seeking behaviours arising out of encountering the barriers to information necessary in meeting that need. His models of information-seeking behaviour (1981, 1999) nonetheless begin with a person with an information need in context, and from there go into different contextual factors and barriers that affect users' seeking processes.

Although many early user-centered studies focused primarily on cognition, other research soon began to incorporate constructivist epistemologies of knowledge to develop models of information-seeking based on people's broader interaction with information (Kuhlthau 2004; Case 2007). Perhaps the most influential information-seeking model of this kind comes from Kuhlthau (1991, 2004), whose information search process (ISP) is a landmark of the user-centered approach and one of the key works in the field. The ISP consists of six stages, each with corresponding affective behaviours: initiation (apprehension), selection (optimism), exploration (confusion), formulation (clarity), collection (confidence), and presentation (relief). The stages of the model are successive, with movement from the first stage to the last representing how "thoughts evolved from unclear, vague uncertainty to clearer more focused understanding" (2004).

Kuhlthau bases her model on the constructivist learning theories of John Dewey, George Kelly, and Jerome Bruner, with the stages of her model corresponding roughly

with Dewey's phases of reflective thinking, Kelly's phases of construction, and Bruner's interpretive tasks. As she points out, the forward momentum of the model also corresponds with Taylor's (1968) four levels of information need. The information-seeking process moves from a vague and undefined need through varying stages of articulation until it is finally molded into a logical and usable form. It is important to note, however, that even though the ISP describes what appears to be a fairly linear process, it is also considered to be an iterative one, with information-seekers often cycling back to earlier stages in the process as needed. In some cases, the information search process never reaches the final stages or even a definitive endpoint.

Originally developed from high-school students' experiences conducting research for a class paper, the ISP has proved extremely robust, having since been applied to a variety of demographic groups and settings. One of the more interesting applications of the model has been Kuhlthau's (2004) own longitudinal case study of a securities analyst's research process over time. Not only does the ISP apply to his individual research projects, but it also provides an overall structure for understanding the trajectory of his entire career.

Another extremely important model in the field is Savolainen's (1995) conception of Everyday Life Information-Seeking (ELIS). Basing his research on Pierre Bourdieu's concept of *habitus*, Savolainen argues that work and non-work information-seeking are not necessarily mutually exclusive activities, but constitute a way of life, a balancing of time and commitments. Habits from one information context are carried over or adapted for other contexts. The ELIS model explores the role of information-seeking in the context of achieving "Mastery of Life", and how people use it to organize various facets

of their life. Savolainen's work has been extremely influential in affirming the validity of non-work information seeking as a context for research, and for recognizing the nature of overlapping information contexts (Given 2002). According to Case (2007), Dervin's Sense-Making approach has been widely applied in ELIS studies, because it does not tend to compartmentalize the experiences of participants.

In the last few years, studies have followed Savolainen's lead and shifted focus towards the issue of context, with many scholars beginning to more fully acknowledge that information behavior is often not linear, nor necessarily even goal-based. Williamson (1998) and Erdelez (1995), for example, have presented two important studies on the role of indirect information acquisition. Williamson's research on older adults revealed that participants found information in their environment before even sensing an information need or gap. Similarly, Erdelez's work looked at academic users who often accidentally discovered what they needed, and from those findings she generated a framework for information encountering.

The issue of context is also a focus in Pettigrew (1999)'s study of human information services at a foot clinic. Examining the relationships of nurses and patients at the clinic, Pettigrew coined the term "information ground" to describe the information-rich space that emerged:

> [T]he clinic may best be described as an information ground, that is, an environment temporarily created by the behaviour of people who have come together to perform a given task, but from which emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information. (811).

As a theoretical construct, the information ground also shares a great deal in common with Gee's (2003, 2007) concept of "affinity groups" and "affinity spaces", both of which

are predicated on a shared space (physical or virtual) as well as a shared set of practices (although not necessarily shared goals).

Building on Pettigrew's work, Mackenzie (2002, 2003) concluded that "information practices" was perhaps a more accurate term than information-seeking behaviour, because the latter term implied a sense of activeness in the process that was not always present. In her investigation of everyday life information seeking behaviour of mothers who were pregnant with twins, she described four strategies at play: active searching (seeking resources, asking direct questions), active scanning (semi-directed browsing and observation of any potential information sources), non-directed monitoring (serendipitous encounters, incidental exposure to information), and by proxy (in which information is gathered through a gatekeeper or mediator). Furthermore, each practice involved two stages: first, making connections with a potential information source; and second, interacting with that information source.

Although research on everyday life has increased in the last ten years, Hartel (2003) points out that many studies have tended to focus on serious life issues such as breast cancer and information poverty, leaving leisure activity almost completely unexplored. Hartel lists several reasons for this gap:

> Foremost, since information is not known to be critical to leisure, there is no mandate to take up leisure as a research subject. Second, since the essential features of leisure are vague and undifferentiated, leisure is a challenging empirical topic. Likewise, LIS has few theories or methodologies tested within leisure contexts. (Hartel 2003, 229)

Fortunately, Hartel has begun tacking these issues in her Ph.D. research on hobbyist gourmet cooks' information use (Hartel 2003, 2006), by providing ways in which a particular leisure activity can be limited in scope, and in presenting theoretical

approaches and methods with which to begin studying information behaviour of leisure. Fundamental to her research is Stebbins' Serious Leisure Perspective, which justifies information as critical to leisure practices. Hartel uses intensive interviews, participant observation, and document analysis as methods, although she adopts domain-analysis (Hjorland & Albrechtsen 1995) as her primary interpretive tool (2005). Her research sketches out the role of information during cooking as a hobby activity, and highlights important resources, patterns of personal organization and information management, and temporal arcs in information use for cooking.

As Hartel argues, leisure is "a segment of everyday life that is information-rich, where people happily make significant effort to be informed" (231). A corollary question relating to leisure research is how domain expertise in a particular topic, coupled with an intrinsic motivation to learn more about it, affects information behaviour. Melissa Gross (1995, 1999), for example, has distinguished between the imposed query (in which the information need comes from an external source) and the self-generated query (driven by intrinsic motivation), arguing that an imposed query is much more difficult for an information seeker to conceptualize and articulate as a coherent and formalized need, because they do not have the domain knowledge nor the motivation to understand the query as lucidly as they would with a self-generated one. Lazonder, Biemans and Wopereis (2000), meanwhile, have noted in their study of novice and expert Web searchers that research has consistently shown that experts in a topic are more effective searchers in that domain. As another example of these contextual factors, Julien and Michel (2004), in a case study of intra-individual information behaviour, found that their participant consulted more sources to satisfy personal information needs than work-

related ones. This participant, however, did not spend as much time evaluating the quality of these sources as he would for work-related information.

In addition to Hartel's gourmet cooking study, there are a limited number of studies emerging from LIS focusing exclusively on a particular leisure activity. Ross (1999) looked at how avid readers search for new reading material, finding that they also did not express an information need, but instead made extensive use of social networks and affective dimensions to find books to read. Yakel (2004) studied the information seeking of family historians and genealogists, and discovered they were seeking more than just information; through finding and organizing their family history, they were constructing meaning and identity for themselves. A very recent study by Cox, Clough, and Marlow (2008) explores users' behaviours and attitudes when using the popular photo-sharing site *Flickr*. Using Stebbins's serious leisure perspective as well as previous studies of amateur photography as a framework, the study discussed how the community around Flickr and the affordances offered by its sharing tools actively engaged participants and increased their interest in photography much more than traditional photography clubs would be able to.

To date, very little has been written about the information behaviour of avid video game players. Although professional literature is beginning to discuss the potentiality of including video games as part of library collections and services (Squire & Steinkuehler 2005; Levine 2006), only there are only two direct mentions of them in the academic LIS literature. The first is Hinton (2006), who discusses how video game culture could influence information architecture design. The second is a doctoral thesis by Adams (2006) looking specifically at information behaviour in the MMO *City of Heroes*. Adams

uses meaning-making and dramaturgical analysis to study the peer culture in the game. Her primary method of data collection was through ethnographic observation in the world itself, a method which differs greatly from the present study because it only considers in-game aspects of information behaviour from the researcher's own point of view.

Much of Adams' analysis focuses on performative aspects that players take on as "actors" in the world, comparing the kind of play that takes, for example, to *Commedia dell' arte*. More pertinent findings do indicate the reciprocal role between peer cultures in the game and information practices of players. As she suggests, the manual is often the least used resource of players, meaning that most information must be distributed to players through both formal and informal structures in the game. One formal structure is through Non-Player Characters (NPCs) giving out information about what the player is supposed to do next (similar to the quest system in *WoW*), while one informal structure was one player demonstrating to another player on a team how to perform a particular action. Adams concluded players' information behaviour played a necessary role in motivating the formation of groups, because players needed to share information. One finding she found surprising was that large peer groups in *City of Heroes* were not as persistent as they were reported to be in other MMOs (possibly because of the design of the game itself).

Game Studies

The medium of the video game has been around for less than fifty years (Malliet & de Meyer 2005), but the integral concepts informing the genre, those of "play" and "game" are much, much older, and it is important to discuss those terms before launching into the larger body of literature dealing with video games. There are two texts in

particular that deserve mention as the theoretical foundations for the emerging discipline of game studies: Huizinga's *Homo Ludens* (1938; English translation 1955) and Callois's *Man, Play and Games* (1961).

Huizinga, in defining play as a concept, asserts that it is older and more primal than human culture and society, yet bound up in it as a socializing function. Play is considered to be free and voluntary, in that it "[stands] quite consciously outside of "ordinary" life" (13), and although it is meaningful, it is not productive in any material sense of the word. The most important concept carried forth from Huizinga's work to game studies is the notion of a "magic circle", that all play exists in a specially constructed time and space, delineated from the ordinary world, and existing with its own set of negotiated rules which participants necessarily obey as part of the experience. As Huizinga argues, "All play moves and has its being within a play-ground marked off before-hand either materially or ideally, deliberately or as matter of choice" (10), the rules of which "determine what "holds" in the temporary world circumscribed by play" (11). The pleasure in play comes from the tension generated by these rules.

Caillois's (1961) work focuses more explicitly on games as one form of play, offering a classification of games based on their structural functions. The four main categories are:

- *Agon* (contest), games of competition based on skill, knowledge and talent
- *Alea* (chance), games where skill or talent has very little effect on the outcome
- Mimicry (simulation), which is a representation of real-world activities
- *Ilinx* (vertigo), games which "momentarily destroy the stability of perception" (23) and create an effect of vertigo

Each of these categories represents a variety of activities ranging from very loosely-structured and improvisational in form (*paidia*) to highly codified structures that have common culturally and socially determined procedures and rule-sets (*ludus*). Activities in the *agon* category, for example, can range from a simple race between two children, to the complex, mediated structure of professional football. Furthermore, none of these categories are mutually exclusive; hardly ever is there a game of pure chance or a game of pure skill. Callois has an entire chapter discussing hybrids.

Recent discussions of play and games in video game studies have drawn out and explored Huizinga and Caillois's work in a variety of ways. Two of the most comprehensive examinations of these concepts are offered by Salen and Zimmerman (2004) and Juul (2005). Salen and Zimmerman use the logic of the "magic circle" to establish two complementary definitions of "meaningful play". The descriptive definition states that "it is the process by which a player takes action within the designed system of a game and the system responds to the action" (Chapter 3, section 4). Simply put, there is a result to every action made by the player. The evaluative definition builds on the descriptive by stating that "meaningful play occurs when the relationships between actions and outcomes in a game are both discernable and integrated into the larger context of the game" (Chapter 3, section 4). If a player takes an action in the game, then there must be feedback to indicate that it was received by the system, and that furthermore, that action will have an definite effect at some point in the game. The action will affect the ultimate outcome of the game.

Salen and Zimmerman's work discusses play in a game as participation in a rule-based system; the "magic circle", in this respect, becomes the limitations of the system

and permissible actions within it as much as it is a specially delineated space and time (although they do describe it as that as well). Systems, however, can be both open and closed, and they operate at a variety of levels, depending on the way the game is framed:

> The question at hand has to do with the boundary between the magic circle of a game and the world outside the game. One way of approaching that question is to consider whether that boundary is closed, framing a completely self-contained world inside; or whether it is open, permitting interchange between the game and the world beyond its frame (Chapter 9, sect. 3).

A game, when viewed as a formal level of rules and procedures, is a closed system. Viewed as experiential play, it could be either open or closed, depending on whether one examines the exact moves made by the player in the game or the player's personality and tastes. Finally, and most importantly, a game as a cultural system is entirely open, in that a game is a product of culture, interacting with it and existing within it.

Understandably, the present study of avid players' information behaviour treats MMOs as open systems of play and culture, looking at players' habits and how they actively construct meaning from the information and knowledge they gain. One of the more eloquently expressed critiques of Huizinga comes from Pearce (2006), who suggests, essentially, that the "magic circle" separating the virtual playground of any MMO (or any video game, for that matter) from the broader world is extremely porous. Play in these worlds is becoming increasingly productive, as players write tutorials, create videos, and even design and sell virtual items and software. Juul (2005), writing specifically about video games, draws on several well-known definitions of games and play (including those of Huizinga and Caillois) to generate a more inclusive definition that includes this possibility:

> A game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are optional and negotiable. (36)

This definition, while maintaining the "magic circle" of the underlying rule system to which the player submits, nevertheless acknowledges that a game "can optionally be assigned real-life consquences" (41). These outcomes are negotiated according to the contextual framing of the activity within the larger culture. While an action such as slaying another player may be completely permissable by the formal system of the game, in the cultural system the meaning of this action is negotiated by players, and may, in fact, be determined as unfair or breaking the "rules".

Juul also distinguishes between games of progression and games of emergence, an important distinction for understanding MMO gameplay. Games of progression are linear, offering consecutive stages that are strongly controlled by the designer and assembled into a narrative. Although players have the illusion of choice, there is largely only one path through the game, and as a result the game has little replay value. Games of emergence, on the other hand, have a simple set of rules that combine together and interact in play to form an infinite variety of play options and outcomes.

Juul notes that most games operate on a scale between progression and emergence, and seldomly are they purely one or the other. Furthermore, he classifies MMOs as primarily emergence games with progression components:

> [MMOs] are hybrids where the overall game structure is emergent but contains a number of small quests where the player has to perform a sequence of events to complete the quest. (72)

Although there are aspects of progression in the quest system, there are no explicit goals defined for the player and gameplay has the potential to extend indefinitely. In fact,

Salen and Zimmerman, in attempting to define games, argue that role-playing games (both table-top and on the computer) are special cases because they do not end in the way that traditional games do. This poses an interesting problem in defining outcomes:

> RPGs can be framed either way--as having or not having a quantifiable outcome. If you look at the game as whole, there may not be a single, overriding quantifiable goal. But if you consider the session-to-session missions that players complete, the personal goals players set for themselves, the levels of power that players attain, then yes, RPGs do have quantifiable outcomes. In this sense, an RPG is a larger system that facilitates game play within it, giving rise to a series of outcomes that build on each other over time. (Chap. 7 Sect. 7)

In comparison to many video games, then, MMOs are extremely emergent. Although they are undoubtedly designed experiences, players and game designers work in tandem to produce the overall experience of the game (Adams 2006). Not only do designers spend a great deal of time implementing changes in world design based on players' comments, but they also ensure that players maintain a high level of autonomy, retaining the potential to make the game what they want it to be. Exploration of this autonomy, and the culture that has emerged from it, is what underlies the current study.

Gaming at Large

As Gee (2003) points out, much of the research about video games has historically focused on popular perceptions of their adverse effects: violence, the negative treatment of gender, and addiction. Although the current study does not discuss these topics explicitly, they still deserve a brief mention. With the emergence of gory first-person shooter games like Doom and Quake and morally reprehensible content such as that typified in the Grand Theft Auto series (which has undoubtedly received the lion's share of negative publicity and public outcry in recent years), so too have researchers questioned the effect of this content on game players, especially youth (cf. Anderson &

Bushman 2001, Dill & Dill 1998). However, Goldstein (2005) argues that results are largely inconclusive and marred by inconsistent research methods and definitions of what constitutes aggression and violence.

Meanwhile, other theorists have discussed gender roles in video games (cf. Cassell & Jenkins 1998; Bryce & Rutter 2005; Taylor 2006). While there is little doubt that, in general, video games are fairly gendered texts, the recent success of games like The Sims (Jenkins 2004) and growing numbers of female MMO players (Taylor 2006) have begun to challenge video games as a primarily masculine space. The Entertainment Software Association recently released figures that indicated that 40% of American video game players were female (ESA 2008).

As mentioned in the introduction to this chapter, addiction is a topic that appears often in the literature, especially in regard to MMOs. In popular culture, names like "Evercrack", "Never-rest" and "World of Warcrack" have been used to parody popular MMOs like *Everquest* and *World of Warcraft*, while stories of "Warcraft widows" who leave their husbands and excessive gaming binges permeate through the media. The most extreme examples are those involving the actual deaths of players, such as Shawn Wooley, a 21-year-old *Everquest* player who committed suicide (Patrizio 2002) or Xu Yan, a 26-year-old teacher who died after a marathon 15-day gaming session during the Lunar New Year festival in China (Reuters 2007).

Although these tragic cases are saddening, actual academic research concerning game addiction and its causes are mixed. A textbook definition of video game addiction does not exist yet, nor have many studies acknowledged that players having the classic symptoms of addiction (like withdrawal anxiety and cravings) are actually addicted in a

medical sense (cf. Griffiths *et al.* 2003; Ng & Weimer-Hastings 2005; Charlton & Danforth 2006). Both Griffiths *et al.* (2003) and Yee (2006e) argue that some gamers are definitely prone to problematic use patterns, and even if they are not "addicted" their playing still impacts their life negatively, in much the same way as Stebbins (2007) has found that other serious leisure activities affects the lives of their practitioners.

It is interesting to note, however, that many MMO gamers self-identify their gameplay as addictive. Up to 50% of Yee's (2006e) respondents reported that they believe they are addicted to their games, while Chappell *et al.*'s (2006) qualitative study demonstrates the sometimes disastrous effect that excessive playing has on personal relationships and work life. Although many MMOs are structured through reward systems that increase difficulty slowly and challenge the players just enough to be interesting, a method that has been compared to B.F. Skinner's operant conditioning method (see Yee 2006e; Duchenault *et al.* 2006a, 2006b), these virtual environments also function as a form of escapism from the real world in a way that cannot be overlooked. They offer a sense of power and competency, as well as a feeling of belonging that comes with being part of a guild, something that some players may not be getting in other parts of their life (Yee 2006e). It is extremely difficult, then, to distinguish between high levels of engagement and actual addiction.

Narratology vs. Ludology

Another important debate in game studies, albeit a much more theoretical one, is the question of how to treat video games as aesthetic objects of study. Taking their interpretive cues from literature and film, critics such as Murray (1997), Ryan (2001), and Atkins (2003) have examined how games function as a form of narrative in

comparison to other media, while others (Frasca 1999, Juul 2001, Eskelinen 2001, Aarseth 2004) have warned against the temptation to import these analytical techniques, arguing instead that games should be studied as ludic structures, with the examination of rules and play being favoured over narrative. In the early years of game studies, this debate was overly polemical, and many arguments were misinterpreted and blown out of proportion (Frasca, 2003).

Since then, however, most scholars have taken a more integrated stance in analyzing the aesthetics of games as texts and cultural products. As one example, Juul (2001, 2005) argues that it is impossible to have narrativity and interactivity at the same time, because games collapse the traditional narratalogical division between story time and discourse time (when and how the story is told), but he nevertheless recognizes the importance of narrative elements in video game design for players Although he argued earlier in his career that fiction and stories have no significant role in gameplay, he has since retracted that argument (2005).

According to Jenkins (2004), one important method of conceptualizing the unique properties of narrative in video games is by understanding the space of the game as "narrative architecture". In games, designers build narrative elements into the virtual world, and players experience these elements by moving through that world. Jenkins describes four types of narrative architecture:

- evocative spaces, in which the game world evokes another story and gives players the chance to play around in its diegetic realm (adaptations are common examples of this).
- enacting stories, in which players take actions which impact an existing narrative

- embedded stories, in which salient narrative information is built into the overall space rather than being "told" to players through cutscenes
- emergent narratives, in which players, through their actions, generate their own stories, both for their immersive characters as well as for their history playing the game.

By Jenkins's account, contemporary storytelling is becoming increasingly "transmedial"; narrative is no longer contained only in a book, or a movie, or a game, but rather spread out over the media landscape. Similarly, Mackey (1999) refers to this contemporary media environment using the metaphor of an outwardly expanding "phase space"; stories existing in multiple media create an intertextual realm of narrative play for its readers, where they can essentially write their own tales. Although game narrative is not a central focus of this study, it does embody a significant role in one participant's motivation for play.

Games for Learning

Another important trend in game studies is studying the potential benefits of video games as rich learning environments. Discussions of how commercial video games affect and even engender learning styles (Delwiche 2006; Gee 2003, 2007; Prensky 2001; Squire 2005, 2006; Steinkuehler, 2005) suggest that the medium offers great potential for education.

Gee (2003, 2007), speaking from a theoretical perspective, argues that video games are excellent examples of situated learning, because they offer a fine balance of overt instruction and skill-building practice. Players rarely have to consult game manual, because they are normally given relevant information about how to play in the game itself at the point of need, and then given plenty of opportunity to practice what they've

learned. At the same time, they are also learning how to participate meaningfully in a specialized semiotic domain and developing the critical learning skills required to analyze and critique the design grammar of that domain. Gee's ideas will be discussed more in the situated learning theory section at the end of this chapter.

From a practical perspective, research projects are beginning to emerge that design video games with particular educational objectives in mind, with the goal of testing them with students. These projects generally fall into two categories: either new games are built from the ground up, or existing commercial software is modified ("modded") to suit the objectives of a project. Although many of these projects are still in the testing phase, The Education Arcade project at the Massachusetts Institute of Technology has released some research findings that support the effectiveness of their games (Francis, 2005; Squire, 2006). One very positive finding from students playing *Supercharged!* is that "the most dramatic results, in fact, came from students who were unsuccessful in school" (Squire, 2006, p. 21). De Freitas (2006) offers a fairly comprehensive review of game-based learning projects, including many non-game projects involving *Second Life*. One project not mentioned in that review, although related to the current study of information seeking, is University of Calgary's *HardPlay*, which aims to teach information literacy and library instruction skills using modified *Half-Life 2* software (Clyde & Thomas 2008).

MMOs: Motivation and Play in Social Worlds

Within video game studies as a whole, the body of research devoted specifically to MMOs is also quite substantial. The popularity of the genre, as well as of online game culture and virtual worlds in general, has spawned an increasingly diverse and

interdisciplinary field. MMOs pose new challenges for social scientists, because of the interaction that takes place within these games and the level of devotion they engender in their players. As noted by Salen and Zimmerman (2004), MMOs are exceptions to the rule, because they do not have a finite end to play, and more often then not, they are as much social worlds as they are games, each with their own emergent economy, communities, and range of social practices and problems. Castronova (2001, 2005), for example, has looked at how trade of game items in virtual worlds has economic implications that spill over into the real world, while in the field of law Lastowka and Hunter (2004) have examined potential intellectual property battles and the nature of ownership in commercial MMOGs.

Much of this research builds on earlier work done on online communities like MUDs and chatrooms. For example, ethnographic research by Turkle (1995) has explored the fluidity of online identity and the phenomenon of gender-bending in online settings, finding that citizens in MUDs tended to cycle through identities as a set of windows of existence. Similar findings have emerged from MMOG research; Yee's (2003) survey of Everquest gamers found that many players, especially males, quite often had characters of the alternate sex, while Taylor (2006) has found that Everquest players quite often have multiple characters on a single account, transferring between these characters according to mood.

One of the major areas of MMO research has been collecting demographic information on players and determining motivations for play. Extensive survey research from Griffiths, Davies & Chappell (2003), Seay *et al.* (2004), and Yee (2006a, 2006b, 2006c, 2006e), has sketched out who plays, how much time they spend playing, and most

importantly, why they play. Griffiths, Davies & Chappell (2003) performed secondary analysis of online poll data from two *Everquest* fan sites, submitted between 1999 and 2002. Their analysis revealed that the majority of players were in their twenties, with a gender breakdown of 84% male and 15% female, and average playing time reported to be between 10-20 hours per week (25%) or 20-30 hours per week (25%). One of the troubling findings, however, was that 15% of their sample reported playing over 50 hours a week, a level of involvement which may have a negative impact on these players' lives. Meanwhile, Seay *et al.* (2004) conducted an online survey of players from three different MMOs (*Everquest*, *Dark Age of Camelot*, and *The Sims Online*), and found very similar results: the average age was 27 (with an age range of 12-68), the gender breakdown was 90% male, 10% female, time spent playing was between 15-21 hours per week, and once again a significant population (12%) reported playing for more than 40 hours per week.

Probably the most comprehensive set of survey data, however, comes from Nick Yee (2006a, 2006b, 2006c), who conducted online surveys of approximately 30,000 players of 4 popular MMOs (*Everquest*, *Dark Age of Camelot*, *Ultima Online*, and *Star Wars Galaxies*) between 2000 and 2003. Consistent with other studies, Yee found that the average age of players was 26.57, with a range of ages from 11-68. The average playing time was 22.71 hours per week (once again, with 9% of players spending over 40 hours a week) and the gender of respondents was 85% male and 15% female. Furthermore, he found that approximately half of these players worked full-time, 36% were married, and 22% had children. One very interesting statistic was that women playing MMOs were, on average, much older than the men (31.72 years compared to

25.71), and more often than not they had been introduced to the game by a romantic partner (2006a).

The diversity in age is broader than many people would expect, but what is truly astonishing about these figures is the amount of time players reported spent playing MMOs. There are caveats to this research. Yee (2006a) warns that the one of the major limitations of an online survey method is the self-selection of participants. Although the results in all three studies are consistent, response rates are likely skewed slightly towards more avid players: those who follow the gaming websites where the surveys were advertised and who take the time to respond.

Nevertheless, there are millions of players who find MMO gameplay meaningful enough to devote a significant amount of time to it, whether it is casual playing for a few hours a week or enduring epic sessions that run 10-15 hours in a single sitting. One significant result from the three surveys described above is that most players said social activities were their favourite part of the game, but other research has shown various levels of socialization occuring. Seay *et al.* (2004) found, for example, that players who appeared to be more committed to their respective guilds logged more hours of play. Similarly, server log analysis of *World of Warcraft* by Duchenault *et al.* (2006a, 2006b) shows that although most characters played alone in the early part of the game, there is still plenty of casual interaction and spectatorship between players. Of course, this social aspect changes significantly in the endgame as teaming up becomes more necessary. A continuing research priority for academics (and undoubtedly for game designers as well) has been to explore the variety of reasons why people are motivated to play MMOs, and determine what personal satisfaction they derive from the experience.

The earliest and best-known analysis of player motivations comes from Bartle (1996), who developed four player types based on his experience working as a MUD administrator:

- Achievers, who avidly work towards accomplishing goals and advancing
- Explorers, who try to find out as much as they can about the virtual world;
- Socializers, who like the social aspect of the game; and
- Killers, who like disrupting the playing experience of other players.

Bartle situates these four player types as four quadrants on a graph, with the vertical and horizontal axes representing Player vs. World and Acting vs. Interacting. As Bartle himself recognizes, these categories overlap to represent a spectrum of activities rather than being rigidly segmented groups. Despite its relative simplicity, Bartle's typology remains a popular and flexible tool for identifying and classifying broad motivations in players, and it is often cited in the literature.

Yee (2006a, 2006c, 2006e), in addition to collecting demographic data, also surveyed players regarding motivation, for the purposes of empirically testing Bartle's player types. From this data, he generated a more complex classification of player motivations, with three main components and several sub-components:

- Achievement: Advancement, Mechanics, Competition
- Social: Socializing, Relationship, Teamwork
- Immersion: Discovery, Role-Play, Customization, Escapism

Yee's work demonstrates an impressive variety of player motivations, and as he argues, it shows how collapsing many players into one archetypal gamer stereotype (as the media often does) "inevitably ignores the important fact that different people choose to play

games for very different reasons, and thus, the same video game may have very different meanings or consequences for different players" (2006c, p. 774). MMOs in particular are very multi-faceted in their appeal, and given the extreme dedication and time commitment players exhibit, it is not surprising that game playing is often framed in terms of addiction.

Qualitative studies about MMOs are also beginning to emerge, many of which explore the social interaction of players in MMOs. Jakobsson and Taylor (2003), for example, examine social relationships in Everquest, comparing how players' social networks, built through trust, reputation, and knowing the right people, function similarly to those of a mafia family. Jakobsson (2006), in another ethnographic piece, discusses how play in *Everquest* is dynamic, changing over time as the population ages and changes, and as its developers modify game mechanics and add content.

Two specialized studies by Taylor (2003) and Silverman (2006) focus explicitly on the playing styles of *Everquest* "power gamers", a unique subculture of extremely devoted MMO players. Power gamers, according to Silverman (2006) are the players who appear "all too willing to compromise every basic valued moral principle, along with several bodily necessities such as sleeping, eating and exercise, all in exchange for success and personal gain in a video game" (17). The distinction between power gamers and other players is important because the former are obvious examples of gaming as a hobbyist form of "serious leisure" (Silverman 2006; Stebbins 2007). Silverman's work uses social comparison and social commitment theory to analyze power gamers and draw out aspects of serious leisure in their game "career". Taylor's

study, on the other hand, describes power gamers in slightly less fanatical terms, conceptualizing them as players who engage in "instrumental play":

> There are several qualities to their approach that emerged: a focus on efficiency and instrumental orientation (particularly rational or goal-oriented), dynamic goal setting, a commitment to understanding the underlying game systems/structures, and technical and skill proficiency. One of the reasons power gaming occupies an "othered" space in games is that it appears to operate directly counter to a popular understanding of fun and leisure. (2003, 302)

Although power gamers view their own habits as reasonable, many players see them as pushing the boundaries of what constitutes "legitimate" play (302), and often accuse power gamers of ruining the fun of the game for everyone else, or even of outright cheating. In many cases, their version of play is what most people associate as being work, and their relationships with other players in the game take on a similarly instrumental orientation.

Learning and MMOs: Community Discourse as Distributed Knowledge

One important area of research on video game culture is the importance of the "meta-game" to players' activities. Loosely defined as the bulk of media produced to support and promote video games, the meta-game has played an integral role in the developing the culture and ethos of video game players. One of the most comprehensive studies of the meta-game elements of gaming comes from Consalvo (2007), who explores how the historical and economic development of cheating tools such as codes, walk-throughs, strategy guides, and game hotlines have shaped players' perceptions of what is considered "acceptable" cheating in video games. According to Consalvo, some practices (such as hacking game servers) are definitely outlawed by game developers, but

in many cases, use of meta-game resources is explicitly encouraged because they serve to propagate increased interest in the games themselves.

In terms of MMO gameplay, the meta-game extends far beyond cheating alone, instead serving as a vital informational component to support in-game activities. As part of his previous survey, Yee (2006b) also asked players how much time they spent in the meta-game (either reading about strategy, scanning websites, searching for information, or coordinating group events) and found that respondents spent an average of 10.4 hours a week on these types of activities (almost half again the time they spent actually playing the game). He also found that 36% of players post to game forums almost daily, while 35% have written an FAQ or strategy guide. In other words, there seemed to be a lot of work going into playing the game apart from actually playing it!

Along similar lines, one very distinct trait noticed by both Taylor and Silverman is that power gamers are very active seekers, users, and producers of information. Their knowledge of the game seems almost encyclopedic, and it has to be, because unlike many arcade or action-oriented video games, skill and competency in MMOs is "largely associated with one's developed knowledge about the expansive gameworld" (Silverman, 2006, 27). This knowledge often manifests itself through collection of status items such as rare weapons or gear. Other players understand that in order to obtain these items, a player must know which enemy has them and how to defeat that enemy. Furthermore, player knowledge is almost always a collective endeavour; information on fan sites is often submitted and vetted by the players themselves (Taylor 2003; 2006). However, in more competitive circumstances, it has been noted that information flow is often restricted to guild members (Silverman 2006).

Steinkuehler (2005), in her ethnographic research on players of Lineage II, explores a similar territory, examining the social learning habits of players through cognitive ethnography and discourse analysis of chat conversations in the game world. Her careful examination reveals the intricate and deep-seated nature of cultural practices within the game world, and the level of expertise and critical knowledge required to become a respected participant within that particular semiotic domain. According to Steinkuehler, learning and knowledge in MMOs takes on a very social perspective, "distributed across tools, representations, and other people" (1) as well as across the "social, spatial, and temporal context in which it occurs" (1). Exposure to this community knowledge, both in-world and as part of the meta-game, is fundamental to the development of the situated identity of the player:

> In truth, the discursive space of MMOGs is one with fuzzy boundaries that expand with continued play: What is at first confined to the game alone soon spills over into the virtual world beyond (e.g. websites, chatrooms, email) and even life off-screen (e.g. telephones calls, face-to-face meetings). The communities these practices serve likewise expand from collections of in-game character playmates to real-world affinity groups. Moreover, such virtual communities function as an important mechanism of enculturation for those who participate in them: Members scaffold and apprentice others into not only a set of shared practices but also a tacit ideological perspective as well.

By her account, the meta-game serves both functional and ideological purposes; not only do players find information that they need to play the game, but they learn the ethos of the playing community and its valued practices.

Nardi, Ly, & Harris (2007), looking at social interaction within the virtual world, find a similar enculturation of ethos occurring. Through analysis of instant chat conversations in World of Warcraft, they found that players very frequently scaffolded each other's learning (as per Vygotsky's [1978] Zone of Proximal Development). These

players were often quite willing to offer advice or guidance, as well as personal assistance to help other players achieve goals. The authors concluded that, in many cases, the game design and player culture promotes and rewards social interaction and good citizenship, which in turn creates a rich learning environment. This study echoes research by Seay *et al.* (2004) that found that a large percentage of in-game communication was related to asking questions and getting support from other players.

The field of game studies is represented in a number of disciplinary perspectives. However, despite the current academic interest in video games in general and MMOGs in particular, information behaviour research into these phenomena is still largely absent, with the exception of the previously discussed study by Adams (2006).

Three Theoretical Frameworks

Despite a relative dearth of information behaviour research directly related to leisure information behaviour in general (never mind that specifically related to MMOs), there are some definite precedents in studying these sorts of phenomena, including some common ground in both LIS and game studies. This study used three sets of theory to guide data collection and interpret findings: Dervin's Sense-Making Methodology, Stebbins's Serious Leisure Perspective, and Situated Learning Theory (specifically Vygotsky [1978], Lave & Wenger [1991], and Gee [2003; 2007]).

Sense-Making

Dervin's Sense-Making Methodology has been described as a method, methodology, and even a meta-theory (Dervin 1999; Case 2007). In the present study, it has been used to inform methodology and method and to provide the conceptual basis for

what constitutes information (explained in Chapter 3). The epistemological underpinnings of the theory will be discussed here.

Coming from over thirty years of studies in both communication studies and LIS, it instigated a huge paradigm shift in the latter through its focus on understanding the individual's point of view during information seeking rather than on transmission of information (cf. Dervin & Nilan 1986; Tidline 2005). Although very broad and loosely constituted in terms of scope, its fundamental mission has been to explore users' personal perceptions of "information" and how they use it to make sense of their current situation.

At the base of this approach are three components: Situation, Gap, and Use/Help (Dervin 1992). Every person, moving through time and space, encounters a situation in which he or she experience a gap or discontinuity in knowledge. In order to bridge this gap, that person must make sense of it by using both objective (external) and subjective (internal) information (Dervin 1977). The method of Sense-Making, then, is the process of drawing out this process by allowing participants to communicate how they worked through these problems.

Although the preceding description may suggest that theoretical understanding of Sense-Making seem straightforward and relatively simple, the strength of the approach is that it focuses exclusively on contextual factors as determined by the person in the situation. Dervin realizes, first of all, that reality is constantly discontinuous, moving between order and chaos as people move through time and space, and therefore requires a continual process of sense-making that varies according to these situations. Whereas most information studies attempt to negate issues of context in order to account for the behaviours of broader populations (thereby reducing unusual participant responses to

being anomalies in the system), Sense-Making recognizes that information users are operating within particular socio-historical contexts and material conditions, in which they are constantly testing their previously constructed knowledge against new situations that they encounter. Differences between users and within a single user become points of comparison and analysis for understanding how individuals interpret the social and material reality of their situations.

Unlike many information theories, then, Sense-Making treats individuals as experts in their own affairs, focusing on "what conclusions they reached and insights they arrived at as well as how they got to those conclusions" (151, 1999), rather than whether the information they received was correct or helpful in an objective sense. It "assumes the actor as theorist of her world, with hunches, hypotheses, and generalizations about how things connect to things and how power flows" (151, 1999), and seeks to draw out the myriad of tacit processes that occur when someone is confronted with a problem or knowledge gap. At the more radical ends of Dervin's philosophical approach is the recognition that "information" itself is a construct, "because it is assumed that anything that might be called information can provide only a partial and temporally tenuous factizing potential of the observed" (1999). What is truly valued, then, is an understanding of what individuals perceive as being useful information and why.

Serious Leisure Perspective

The Serious Leisure Perspective is a grounded theory developed by Canadian sociologist Robert Stebbins over thirty years of studies. The perspective aims to conceptualize and classify the depth and breadth of leisure practices in society. In his most recent reiteration of the perspective (2007), Stebbins distinguishes between three

main forms of leisure: serious leisure, casual leisure, and project-based leisure. According to him, casual leisure is an instantly pleasurable activity, involving little time investment or skill development (an activity like taking a walk), while project-based leisure is more intense involvement in a single goal-based, short-term activity (like planning a family reunion). In contrast, serious leisure is "the systematic pursuit of an amateur, hobbyist, or volunteer core activity sufficiently substantial, interesting, and fulfilling in nature to find a career there acquiring and expressing a combination of its special skills, knowledge, and experience" (Stebbins 2007, xii).

Individuals involved in serious leisure, then, are so intrinsically motivated that they treat their activities as vocations (albeit without any form of pay). Most importantly for information behaviour research, serious leisure requires the acquisition and practice of a particular skill set as well as the development of a body of knowledge within a community of practitioners, not unlike any other professional or academic discipline. In this context, information use is critical to leisure practices.

Stebbins identifies several qualities that define serious leisure practices. First is the need to persevere through occasional difficulties in order to pursue the activity. Next is that the leisure activity often takes on the form of a career, with five distinct stages: beginning, development, establishment, maintenance, and decline. Stebbins admits that these stages are a somewhat amorphous; in general, participants follow a career trajectory during which an activity "takes root" (2007, 20) and they work on a path towards continual skill development and practice until they reach the maintenance stage where they have built up the requisite skills and are reaping the benefits of their work. At that

point, participants' careers sometimes (but not always) go into decline, having reached "a point of diminishing returns" (20) where the work that goes into activity is no longer as fulfilling, until they finally get bored of it and move on.

Another quality of serious leisure is that participants demonstrate "significant personal effort" (11) in acquiring the knowledge and skills in order to pursue their activity, as mentioned above. The fourth quality is that every serious leisure activity has a unique ethos that is imparted to participants. According to Stebbins:

> An ethos is the spirit of the community of shared leisure participants, as manifested in shared attitudes, practices, values, beliefs, goals, and so on. The social world of the participants is the organizational milieu in which the associated ethos – at bottom of cultural formation – is expressed (as attitudes, beliefs, values) or realized (as practices, goals). (12)

Stebbins borrows from Unruh's (1980) concept of "social worlds" to describe the structure of these communities as being informal, voluntary, decentralized spaces of shared activity. Unruh's concept shares many characteristics with Lave & Wenger's (1991) communities of practice and even more with Gee's (2003, 2007) affinity groups and affinity spaces (which will be discussed in the next section), but differs in that its layers of participation are more defined. According to Unruh (1980), social worlds are made up of strangers, tourists, regulars, and devotees, with involvement in the world increasing with each layer. Perhaps not surprisingly, another quality of serious leisure is that the activity often becomes a salient part of a participant's identity, sometimes even more so than an actual career (especially those who are regulars and devotees in its social world).

The final quality, and the most fundamental in terms of motivation, is that participants experience benefits or rewards from the activity, such as feelings of self-actualization, self-expression, accomplishment and belonging. Stebbins argues that these rewards almost always outweigh most potential costs, although exact rewards are weighted differently by every person and for each activity. However, one of the most common rewards reported by participants across studies was personal enrichment, defined loosely as "cherished experiences" (14). In many cases, participants described their experiences of this reward in terms of achieving a state of psychological flow closely resembling that described in Csikszentmihalyi's (1990) theory of optimal experience.

According to Csikszentmihalyi, flow is a psychological state that occurs when people become deeply immersed in an activity and experience "a sense of exhilaration, a deep sense of enjoyment that is long cherished and what becomes a landmark in memory for what life should be like" (1990, 3). One hallmark of flow is that it is usually a challenging experience, and sometimes not fun or enjoyable in the way most people would expect:

> Such experiences are not necessary pleasant at the time they occur. The swimmer's muscles might have ached during his most memorable race, his lungs might have felt like exploding, and he might have been dizzy with fatigue – yet these could have been the best moments of his life. (3-4)

The pleasure comes with a "sense of mastery" (4) over the situation, a feeling of being at the edge of one's own limits as much as it comes from enjoyment in the activity itself.

From his research, Csikszentmihalyi (1990) identifies eight components of the flow experience:

1. An activity that is challenging, requiring competence without being too difficult.
2. The activity requires enough concentration that people performing it "become so involved in what they are doing that the activity becomes spontaneous, even automatic" (53).
3. The activity has clear goals.
4. The activity offers immediate feedback.
5. Concentration is deep enough that awareness of life outside the activity fades away.
6. The participant experiences a sense of control and mastery in the activity they are performing.
7. Self-consciousness disappears during the activity (but re-emerges afterwards).
8. The participant's awareness of time passing becomes distorted, as the moment either slows down or speeds up.

These components work together to form an "autotelic experience", in which "the person is paying attention to the activity for its own sake" rather than being "focused on its consequences" (67). To achieve flow, it is important that the challenges of the activity remain consistent, so that it is neither too difficult nor too easy.

Both Csikszentmihalyi's flow theory and Unruh's (1980) concept of social worlds have been imported into Stebbins's framework, serving as analytic tools for understanding motivation and social interaction in these activities. Flow theory is a popular concept in video game studies (cf. Juul 2005, Salen & Zimmerman 2004), while Silverman (2006) uses Unruh's "social world" as a means of establishing MMO gaming as a form of serious leisure.

As mentioned above, serious leisure is divided further into amateur activities, hobbies, and career volunteering; Silverman concludes that MMO gaming is most accurately considered a hobbyist activity, because MMO players have no truly professional counterparts to qualify their efforts as amateurs. In the current study, the Serious Leisure Perspective will be used to explore participants' involvements in their own social worlds, and to interrogate to what extent their own histories as players are representative of careers in this sociological sense.

Situated Learning Theory

Situated learning theory represents an extremely broad set of related theories, so in the interest of space I will focus on three interpretations: first, Vygotsky's (1978) Zone of Proximal Development; second, Lave and Wenger's (1991) conception of situated learning as legitimate peripheral participation in a community of practice; and third, Gee's affinity groups and affinity spaces. All three interpretations share a great deal of common territory, especially since Gee's work on affinity spaces serves as a critique of the notion of communities of practice, and Lave, Wenger and Gee build upon the cognitive learning theory of Vygotsky (1978).

Vygotsky (1978) is an extremely influential theorist in educational research, and his work has informed the studies by Steinkuehler (2005) and Nardi, Ly, and Harris (2007) discussed in the previous section. Central to Vygotsky's theory is that social interaction plays a fundamental role in cognitive development, and that the most potential for learning occurs when a learner is paired up with a more experienced or skilled

counterpart. This apprenticeship process allows the learner to reach the Zone of Proximal Development, which Vygotsky described as:

> ...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (86)

The abilities of individual learners are scaffolded by a mentor or peer, allowing them to function at a level of competency beyond what they could achieve on their own. As Nardi, Ly, and Harris's (1991) treatment of Vygotsky indicates, the Zone of Proximal Development often manifests itself as a form of apprenticeship.

Lave and Wenger's (1991) work, while building on Vygotsky's interactionist approach, emerges as a critique of apprenticeship as a broadly used but poorly-defined concept. Although far from a straight transmission model of learning implied in direct instruction, apprenticeship models nevertheless assume a traditional coupling between master and apprentice, while ignoring other relationships. Furthermore, it also perpetuates the familiar understanding of learning as distinct process whereby the learner internalizes knowledge, while ignoring the negotiation of meaning that takes place between parties. Lave and Wenger take the relational conceptualization of knowledge suggested in theories of apprenticeship, and instead argue that the entire nature of learning is constituted through participation in social practice and discourse:

> Participation is always based on situated negotiation and renegotiation of meaning in the world. This implies that understanding and experience are in constant interaction – indeed, are mutually constitutive. The notion of participation thus dissolves dichotomies between cerebral and embodied activity, between contemplation and involvement, between abstraction and experience: persons, actions, thought, and the world are implicated in all thought, speech, knowing, and learning. (52)

Learning cannot be separated from communities of practice; it is only accomplished through participation within those communities, through interaction with its actors, sharing of its values and ethics, and through continual production and reproduction of its practices.

Legitimate peripheral participation refers to the cycles of learning within those communities, in which newcomers to a community move towards more intensive participation and in doing so become old-timers. Lave and Wenger explicitly state that this participation is always peripheral; communities of practice have "no single core or center" (36), because to describe them as such would reduce the dynamic nature of practice in these communities to "a linear notion of skills acquisition" (36) in which participants proceed from the periphery to the center, becoming "complete" participants. Indeed, many of the interesting tensions that emerge from this kind of situated learning are issues of contradicting views of legitimacy in considering what actually constitutes practice for its practitioners, views that necessarily change over time. As Lave and Wenger suggest:

> Learning, transformation, and change are always implicated in one another, and the status quo needs as much explanation as change. Indeed, we must not forget that communities of practice are engaged in the generative process of producing their own future. Because of the contradictory nature of collective social practices and because learning processes are part of the working out of these contradictions in practice, social reproduction implies the renewed construction of resolutions to underlying conflicts. (1991, 58)

As the nature of a community of practice itself is constantly under negotiation, so too are the power structures and privileged knowledge within that community. Within the

learning cycle of the community, one of the methods of exercising political control is to limit the legitimacy of newcomers' involvement by mediating access to community discourse, knowledge and practices, while still bringing them into the community at the same time. Lave and Wenger discuss this in terms of a study of butchers who assigned their apprentices menial tasks, thereby providing legitimate access to the community (in that the tasks are marginally related to it) but not meaningful participation.

Finally, learning in a community of practice involves the construction of a new identity, based on the relationships between individual, activity, and community:

> As an aspect of social practice, learning involves the whole person; it implies not only a relation to specific activities, but a relation to social communities – it implies becoming a full participant, a member, a kind of person. (52)

In other words, participants begin to see themselves as the kinds of people who can understand, perform, and interpret these practices, and they identify themselves as members of that community.

Gee's (2003, 2007) work explores very similar territory, but from the view of semiotics and literacy, arguing that words, symbols, images, and artifacts always take on situated meanings dependent on the particular semiotic domains in which they are used. Using an example from *World of Warcraft*, the word "grind" has a very different meaning in game terms (repetitive, boring gameplay) than it does when one speaks of sharpening a knife, although it is still very close to another idiomatic expression denoting repetitive, boring work (the daily grind). In all three cases, the meaning of the word depends on the semiotic domain in which it is used. As he suggests, "learning in any semiotic domain crucially involves learning how to situate (build) meanings for that domain in the sorts of situations the domain involves" (2003, 26), as well as a

corresponding understanding the practices, identities, and ways of knowing associated with it.

An affinity group, meanwhile, are those people associated with a particular semiotic domain:

> People in an affinity group can recognize others as more or less "insiders" to the group. They may not see many people in the group face-to-face, but when they interact with someone on the Internet or read something about the domain, they can recognize certain ways of thinking, acting, interacting, valuing, and believing as more or less typical of people who are "into" the semiotic domain. (2003)

Affinity groups, therefore, closely resemble communities of practice. Members in the group understand the inner workings of the domain, and in most cases are able to critically examine those meanings and practices within it as well as generate new ones. Gee focuses on semiotics and discursive practices whereas Lave and Wenger focus on material practices.

Gee revises his concept in a later work (2007), moving from affinity groups to affinity spaces, at the same time offering a critique of "community of practice" as a term. Although he has many issues with the term (including misleading connotations of the word "community" as being warm and peaceful), his main criticism is that it ultimately imposes the labels of members and membership upon less-defined social groupings that lack these qualities:

> If we start with the notion of "community" we can't go any further until we have defined who is in and who is not, since otherwise we can't identify the community. Yet it is often these issues of participation, membership, and boundaries that are problematic in the first place. (2007, 88)

Instead of communities or groups, Gee suggests it would be more valuable to study "affinity spaces", in the shared interest or endeavor that generates the space is more important for study than the people who are part of the space.

Affinity groups, according to Gee, are shared spaces that form around "generators" of content. Most importantly, these "spaces" are not physical (although they sometimes manifest themselves in that way) but instead have many "portals" for entry. In the case of *World of Warcraft*, the "core generator" of the affinity space is the game itself, with other generators being conventions, fan sites, databases, web comics and videos. The most important part of an affinity space is that all activity, regardless of motivations, memberships, or otherwise, forms around this shared interest or endeavour.

Gee goes on to define several other features of affinity spaces, many of which explore the lack of hierarchy that exists in relation to group dynamics, as well as the distributed forms of knowledge that are often shared in these spaces. For the most part, Gee describes them as a more flexible, "cross-functional", and dispersed form of social organization than that found in communities of practice. As will be seen in this study, there is evidence of both types of socialization patterns occurring in the gameplay of *World of Warcraft*, each with their own implications for the information behaviour of participants.

Conclusion

This chapter has reviewed the related literature from library and information studies as well as from the emerging discipline of game studies. It has also described the three theoretical frameworks, Sense-Making, Serious Leisure, and Situated Learning Theory, that were used to guide data collection and analysis in the current study. The next chapter offers an overview of the methodology.

CHAPTER 3

Methodology

As can be seen from the literature review presented in Chapter 2, there is a significant gap between game studies and information behaviour research. Although there is plenty of game studies literature that discusses player culture, meta-game resources, and the dissolving boundary between consumer and producer in MMOs (Pearce 2006; Steinkuehler 2005; Taylor 2006; Yee 2006), very little explicitly explores how individual players actually seek out and use information to enhance their gameplay. From the perspective of LIS, little research discusses leisure information behaviour, let alone leisure information that is technically based on a fictional world. The research questions posed by the current study attempt to examine individual players' behaviours and the meaning behind them, as well as how explore how observed behaviours within a game world, as mostly fictional context, could transfer over to "real life".

This gap also presents methodological issues. Most qualitative research on MMOs has been conducted within the borders of the virtual world itself, with the exception of support materials gathered by researchers. My goal of capturing a holistic view of players' information behaviour as it relates to MMO gameplay presented a unique challenge in terms of methodology. First, I had to account for activity inside the virtual world of the game: participants' use of the interface tools (both the authorized toolset and the third party software add-ons), their exploration of the space, their communication with other players (text and voice chat), as well as their reception of "required" information doled out by the game system at appropriate times (in-game instruction, quest information, and feedback resulting from actions taken). Second, I had

to capture participants' use of online and print resources (forums, databases, videos, strategy guides) and interpret how and why they chose to use these resources and how it supported their gameplay. Third, there had to be some conception of how their activities away from the context of the game (lifestyle, out-of-game relationships, and exposure to the broader media culture) influenced their gameplay and related information behaviour. Fourth, in an exploratory study of a fairly under-represented area of information behaviour research, data collection and analysis needed to be broad and flexible yet still grounded in the previous work done in library and information science, game studies, and education. Finally, I had to situate my own MMO gameplay and information behaviour within the study, and understand how my own tacit knowledge shapes my interpretation of data.

Research Design

The present study consists of four in-depth, exploratory case studies of avid *World of Warcraft* players' information behaviour, exploring the following research questions:

1. How do avid players use information to enhance their enjoyment of the gaming experience?
2. How do these players use information to construct their identity as participants in the social world of the game, and how does that construction affect their gaming experience?
3. What do players see as the most valuable information resources for the game, and what criteria do they use to evaluate the quality of information they receive?
4. To what extent is players' information behaviour influenced by the modeling or apprenticeship of those behaviors of other players?
5. How do these players perceive their research and knowledge? Do they feel they are experts of the game? Do they feel that what they have learned is transferable?

For the purposes of the study, an avid player is defined as someone who plays the game for more than 10 hours a week on a regular basis. The distinction between avid and casual player was made because previous research (Silverman 2006; Taylor 2003) had indicated a possible relationship between amount of playing time and amount of information use. The time limit, therefore, was used to ensure that potential participants were significantly invested in the game, and more than just casual players.

Information behavior is defined as all human behaviors related to needing, acquiring and using information. An information need, to borrow from Taylor (1968), is a general perception (at any level of subconscious, conscious, or articulated understanding) that information is needed to fill a gap in knowledge. Acquisition involves the finding, internalizing, and making sense of information, referring to not only active processes such as seeking and browsing, but also passive behaviors like observing and encountering. Information use involves not only application of knowledge gained to a particular problem, but also how that information is transmitted and shared with other people.

In an exploratory study looking at the holistic behaviour of a few individual players and their perceptions of acting and participating within a larger community of players, the definition of what constitutes information was also very broad. Using Dervin's (1977) definition, information can take on three forms: objective information that "describes" reality (as closely as it is possible), that which exists external to the individual user; subjective information, in which the user constructs an internalized "cognitive map" according to individual experiences and knowledge; and sense-making

information, the interpretive process during which the user moves between the objective and subjective aspects of information.

These definitions of information and information behaviour effectively encompass both in-game and meta-game information that is actively and passively acquired from seeking and browsing available resources, as well as through direct and indirect communication between players. Most importantly, they consider information as something that is actively constructed by its users according to context, which is a central concept in this study. Information behaviour in MMO gameplay, as will be seen in later chapters, is sometimes as much a result of experiential learning in the environment as it is active seeking or browsing, which is a considerable shift in interpretation for many information-seeking studies. Any definition that discounts the information gathered through observation and trial and error would miss much of the interesting socially constructed phenomena that occur inherently as part of the activity. Similarly, any account of the behaviour of players cannot be easily restricted to the boundaries of the online context as some information studies are prone to do. The popularity of MMOs means that they have become a cultural reference point for those who play them, and players swap stories and game information in everyday life environments.

Data Collection and Analysis

The study used a triangulation of qualitative methods in data collection to ensure credibility of results. These methods included:

- In-person interviews with players about their past experiences acquiring and using information in the game context
- Textual analysis of external game resources and community documents that are deemed valuable by these players (including exploration of expressed reasons of

why they are considered valuable)

- Observation of gameplay, in which participants are asked to articulate what they are doing and thinking while they are playing.

Because the study is intended to offer individual portraits of gamers' information behaviour rather than widely generalizable or transferable results, there was no attempt to obtain a representative or statistically significant sample of participants. All participants were recruited through word of mouth, using purposive and snowball sampling. The only criterion for inclusion in the study was that each participant had to play a minimum of 10 hours a week, thus meeting the definition of an avid player.

When making contact with potential participants, I explained the research process, including a full description of all ethics guidelines and the rights of participants. I then ensured each participant met the play time criterion, and arranged a meeting time for the interview and observation session. Sessions were arranged according to the participant's convenience. In all cases, both the interview and the observation session were held in the same day, at the request of the participants. All sessions were conducted in the participant's normal gaming-playing environment (in close proximity of the computer on which the game is most commonly played).

Conducting the sessions in the home environment was a priority for this study because location significantly influences the credibility and authenticity of the data. As Jenna Hartel's (2006) research on gourmet cooking as a hobby has suggested, many of the important information artifacts that are used in serious leisure activities are found in personal collections. In the case of avid MMO players, the nexus of activity for the hobby was logically located around the home computer. Physical artifacts such as notebooks, guides, and printouts (when available) were close at hand for ready reference,

but the majority of digital artifacts were available on the World Wide Web or stored on the participants' computers. Three out of four participants also used third-party software add-ons to customize their user interfaces and provide extra in-game information tools, which often require a great deal of adjustment in order to meet users' preferences. For many players they are a crucial part of the game, meaning that the home computing environment was really the only viable choice for conducting the sessions.

The first session was a loosely structured, face-to-face interview lasting approximately 1.5 hours. Although many MMO studies engage in in-world data collection through avatars (cf. Nardi, Ly, and Harris 2007, Silverman 2006, Steinkuehler 2005), a face-to-face interview was determined to be the most effective method for this particular study, because players needed to be able to demonstrate how they used the information resources at their disposal. Leander and McKim (2003), in studying the digital practices of adolescents, have cautioned against drawing too firm a line between online and offline ethnographic methods. To support their work, Taylor's (2006) study serves as one example of MMO research that demonstrates the richness gained from collecting data off-screen as well as on. Furthermore, interviews are an extremely common method in information behaviour research, especially in studies of everyday life or leisure contexts (cf. Hartel 2006; MacKenzie 2002, 2003; Pettigrew 1999; Ross 1999), because of their effectiveness in gathering comprehensive data (Case 2007). In this case, interview technique was heavily influenced by Dervin's Sense-Making methodology (1992; 1999), which focuses on understanding discontinuities in knowledge through neutral questioning.

I began by asking participants to describe their history with *World of Warcraft*: how they got started, early experiences in the game, what kind of characters they play, and what their guild is like. Additional biographical information was collected as necessary. Participants were also asked to talk about what they enjoyed most about the game. One effective method of getting them to speak about motivation was to ask which one of Bartle's (1996) four player types they felt they identified with most closely, a question that in all cases generated a lot of discussion.

Throughout the interview, I guided discussion towards aspects of gameplay during which information seeking or use seemed overtly necessary. For example, when participants made reference to uncertainty in their gameplay knowledge, I asked them to describe the process they went through in solving that gap. Similarly, at points when they exhibited enthusiasm towards accumulating knowledge, or else indicated a tacit expertise in aspects of the game beyond what might normally constitute casual gameplay, I asked them to elaborate on those parts of the game and how they acquired that knowledge. In cases where a specific information resource was named, the participant was given the opportunity to demonstrate this resource and describe how they used it.

As one of final questions in the interview, I asked participants to identify two information resources that they found to be the most helpful (or if not helpful, then interesting). This question was framed as a "desert island" question ("If you were to have access to only two game-related resources, what would you choose?"). Participants also gave a brief description of how each resource was used, explained what qualities and features made it particularly useful or important for their purposes, and indicated how they found out about it. These resources were loosely analyzed later for further insight

into how each participant's information behavior and practices were influenced by community discourse. Analysis of these resources in the current study was by no means comprehensive, nor could it be, given the size and depth of many of them. Instead, this analysis was used mainly for additional context, to ground participants' discussions within the discourse of the larger *World of Warcraft* community and identify to what extent their opinions were reflected in/influenced by aspects of this discourse. In many cases, the information resources they chose were ones with which I was already familiar as a player, so I had at least a passing understanding of why they were helpful.

The second session was an in-person observation of gameplay. Participants were asked to play through what they considered to be an average gaming session, during which they were invited to describe their actions, experiences, thoughts, and impressions, as they moved through the world, communicated with other other players, and participated in activities. This method of data collection (referred to as the Think-Aloud protocol) has proven to yield rich data in both information-seeking studies (cf. Branch 2000; Fidel *et al.* 1999) and research on digital literacies (cf. Lewis and Fabos 2005). The method was useful for gaining access to examples of tacit knowledge and habits that were not conveyed in the interview, but it proved more problematic for observation of MMO gameplay than for some information search studies, largely because of the diversity of activities being observed.

Given the variety of player motivations and the open-ended nature of play in *World of Warcraft* and other MMOs, participants' definitions of a typical gaming session varied a great deal. I was willing to accommodate these differences in order to ensure a naturalistic play session, but as a result the type of data collected from each session

differed greatly. Ideally, the observation session was planned to last approximately 1.5 hours and involve the player accomplishing a handful of tasks based on their current goals in the game. Activities in the sessions included the following: completing quests (Katie, Adam), coordinating a 25-person group "raid" (Rick), playing the raid itself (Rick), participating in battlegrounds (Katie, Dan), participating in arenas (Dan), and character maintenance (loosely defined as any activity conducted in preparation for other activities, like buying or selling gear) (Rick, Adam). Three of the four participants were involved in group activities at some point during the session (Katie, Rick, Dan), and two participants used voice chat in addition to instant messaging (Rick, Dan). Only one player, Rick, used information resources in tandem with gameplay, by toggling between a Web browser and the game window.

In circumstances where voice chat was being used, it was obviously more difficult for participants to describe what they were doing and for myself to prompt them or ask questions. I tried not to interrupt the flow of conversation between two players unless absolutely necessary. As a result, Rick and Dan's observation sessions involved much less speaking and much more observation. Katie and Adam's sessions, on the other hand, had a balance of both. It was equally difficult to communicate with participants during points of high concentration. If I asked a question at a moment when the player was overwhelmed by enemies and hanging on for dear life, it would be severely disruptive not only for the participant but also for the entire group. Nevertheless, there was enough downtime in between battles that any potential questions or comments were handled. After the first interview, I began jotting down questions, to be answered at a more opportune time.

Interviews and observation sessions were conducted between September 2007 and March 2008. Audio for both sessions was recorded on my laptop using an external microphone and digital recording software. Video of the computer screen in both sessions was also captured using a digital camcorder. The participant was not video-recorded. Video footage allowed me to associate the participant's words with the activities on the screen, to observe participants' demonstrations of information resources and activities of the game session.

I transcribed the sessions and conducted initial coding of the data using Transana, a qualitative software package which allows researchers to view transcripts and video data in sync. Coding of data was very loose, using a handful of broad categories to organize emergent themes that I found in the interviews and observation sessions. As expected, these categories were not mutually exclusive, and as I moved into the writing process, I moved back and forth between coding, watching, and writing. The most expedient method, in the end, was to code according to the kinds of information they were describing, and to draw out motivation and use patterns from there.

Research Ethics

This study was reviewed and approved by the Faculty of Education's Research Ethics Board at the University of Alberta. Participants were informed of their rights as participants prior to the first session, and they signed the official consent form at the start of the interview session before any data was collected. In order to protect their anonymity, the names of all participants, characters, guilds, and game servers discussed in this study have been replaced with pseudonyms.

One question that emerged from this research that remains to be explored is the conditions surrounding the ethical use of communication in virtual worlds. In theory, many of the messages sent over the general chat channel in *World of Warcraft* are addressed to the server population at large: a public conversation in an ostensibly public space, much like a web forum or blog. Yet it is not at all clear whether a virtual world is a public space, or whether the utterance of another player in general chat can be considered on the same terms as something like a public lecture. Would a researcher have to obtain the consent of all players who interacted with a single participant during the observation session? In this study, I have addressed this issue by only transcribing and analyzing the words and actions of the four participants, with the understanding that some of the rich interaction between players was a necessary loss.

Evaluating the Outcome

The four factors that are commonly used to evaluate the effectiveness of qualitative research are credibility, transferability, dependability and confirmability (Lincoln and Guba, 1985; Shenton 2004). I have attempted to address credibility and dependability of the results through triangulation of data collection methods as well as through thick description of the data (Geertz, 1973). I have described the context in which data collection occurred and the results that were obtained as truthfully as I can. It is up to my readers whether they seem reasonable.

Similarly, transferability to other contexts is extremely problematic. This study presents the individual portraits of the preferences, habits, and motivations of four people playing one MMO at a particular moment in time. MMOs themselves are a new social and technological phenomenon and as such they are subject to shifting attitudes and

usage patterns, with each game developing its own unique culture. Therefore, results are not intended to be transferable to other contexts, nor will they be explicitly reproducible by other researchers. Once again, I have provided the context of the study and allowed readers to make their own inferences regarding its transferability.

In terms of confirmability, it is extremely important to again point out that I am a professed insider to the culture described by all four participants. Although I can hardly call myself an avid player, I had logged over 300 hours of play before conducting my first interview. My experience playing the game has made me another study participant, in a way, and to that end I have described my own history as a player in Chapter 1. It is difficult to determine the extent to which my involvement predisposes me towards certain attitudes or patterns of thinking. There is no question that my perspective affected the method in both positive and negative ways. Being immersed in the game culture myself meant that participants could skip past explanations of specialized vocabulary and practices, and as a result we could delve much deeper into other territory. On the other hand, those explanations by themselves could have served as a mode of drawing out tacit knowledge.

Ultimately, I believe my MMO history was beneficial, because it allowed me to communicate with participants as an insider. Given the social stigma sometimes associated with MMOs, being 'one of their own' allowed me to establish a better rapport with players because they knew that I understood the attraction of the activity itself. Interestingly enough, I found throughout the process that many of my own perceptions and beliefs about other players' habits were consistently challenged, which was part of the joy in this project. Nevertheless, questions of confirmability have been addressed

through the triangulation of data collection methods, communication of themes with my supervisor, and by allowing time for an iterative analysis process.

Conclusion

This study used interviews, participant observation, and informal textual analysis of information resources to explore the game-related information behaviour of four avid World of Warcraft players. Although many MMO studies use in-game ethnography to collect data, in-person methods were decided to be better suited for capturing the broadest possible range of player opinions and behaviours. The next chapter describes the four participants in more detail.

CHAPTER 4

Four Avid Players

As we will see, how and why the participants in the current study use game-related information is associated with their motivations for play, their relationships with other players, and what rewards they receive from the activity. To that end, one of the goals of the current study is to present gaming profiles of each player, to demonstrate that even among a sample of only four players there are a number of various playing styles and personalities involved. Profiles for Katie, Rick, Dan, and Adam are provided in this chapter.

Katie

Katie was an Arts student at a large Canadian university. She was in her early twenties, and about halfway through her Bachelor's degree program. Of the four participants in the study, Katie had been playing *World of Warcraft* the shortest amount of time, approximately a year at the time of the interview in September 2007. She was also the least experienced video game player of the four, having played only some PC games and no previous MMOs. She mentioned that her previous game of choice was *The Sims*, which she and her sister had played a great deal when she was still in high school. She had also played some single player war games like *Risk* and *Dynasty*. The only game installed on her computer at the time of the interview, however, was *World of Warcraft.*

Katie was introduced to the game by her sister, who in turn was introduced to it by her boyfriend and his friends about three months earlier. Katie began her first character on her sister's account, and her sister was present when she began. Katie described the initial play experience as "interesting and confusing, and kind of nerve-

wracking", even with the coaching that she received from her sister. She caught on fairly quickly though, and soon afterwards, she signed up for her own game account so she could play at the same time as her sister. At that point, she began her first long-term character and joined a very close-knit social guild, consisting of her sister and several other real-life friends and personal acquaintances. Although her friends were ahead of her in game levels, they assisted her in catching up, and a period of unemployment during the summer after a trip to Europe gave her extra time to quickly advance her character to the maximum level of 70. At that time, she was only the third person in her guild to reach the endgame, despite the fact that most of her fellow guild members had started a month or two before her. Since returning to university, her playing time had decreased quite a bit, but she described the game as "a little addictive".

When asked about which of Bartle's (1996) four player motivations she most closely identified with, Katie responded that she like the exploratory aspect of the game the most. She talked at great length about how much she enjoyed the rogue character class because of its "stealth" ability, which allowed her to sneak around without being noticed:

> I just started exploring. And the ability to do it without getting caught, I think, helped me get hooked into the game, so then I could discover different areas, places I probably shouldn't have been with her at that level, but I got through the realm without getting caught too much and dying....That was the one advantage of actually, the class I picked, I think, is I got to learn the game without having too many problems.

For Katie, exploring the world was one of the greatest motivators in gameplay, and her early successes visiting unfamiliar and dangerous territories fueled her interest in the game and got her "hooked". Much of this exploration was done on her own. She talked

about how much she enjoyed tackling content by herself that was intended for groups, using her stealth ability to sneak past foes that were too powerful.

However, now that her main character had entered the endgame stage, Katie admitted that she wasn't finding the game as fun now as when she was leveling up her character. Part of the problem was she now needed more people to help her, but unfortunately she had exceeded the capabilities of her own guild.

> Other than just grinding with her, there's nothing I can do....she can't quest, which is actually my favourite part of the game, so she's pretty much stuck until we get more people at [level] 70 in our guild who can help out with the five-man [dungeons].

Duchenault *et al.* (2006a, 2007) demonstrated through *WoW* server log analysis that players' participation in groups picks up considerably in the last few levels of the game, and suggested that gameplay changes dramatically at this point because players are forced to team up more. Guilds are the primary method of grouping, especially for large raids requiring up to 25 people. Given the small size of her guild, Katie's main character was effectively stuck with nothing to do except PvP challenges or grinding (the repetitive killing of mobs for money or reputation points).

Although Katie had been playing that character in some PvP battlegrounds, she expressed that she did not like them as much, partially because they were fairly repetitive, and partially because she did not have the proper gear to compete with more experienced players. In order to get the proper gear, however, she had to participate in more instances:

> It's hard to play in 70 battlegrounds, because everyone's been playing 70 longer than us and we all have crappy gear. So that's actually the new goal of most of the 70s in the guild is to start running more instances continuously, just to pick up better gear. Because we are at a distinct disadvantage, especially doing PvP stuff.

In comparison to the broader population of players, she had been playing a drastically shorter time, and therefore had to catch up in terms of quality of gear, a process that can take several months. But without more assistance from players in her guild, she couldn't run the necessary content to get the gear. In fact, it was evident from the interview that there were at least a couple guild members who were frustrated by the limitations inherent in a small social guild, but that this frustration was channeled into preparing for the point when they could move into more exciting end-game content:

> We're getting to that point now where we're looking into getting our technique up for instancing, and making sure we're good enough to get into those, but we haven't, you know - we have never run a giant raid. Not instancing. Um, a few of us do PvP raids, but then you just go out and kill stuff, so what's the point?

Her options were limited. However, it was clear that the benefits of the socializing with close friends was much more important than progress and achievement, and at no point did she mention leaving the guild for a more competitive one (as some players have been known to do). Instead, Katie was content to spend less time with her main character and more time playing her "alt" characters, of which she had several. She had experimented with most character classes but still liked rogues the most, so much so that she was thinking of starting another. The most advanced character after her main character (her first rogue) was a level 55 warlock, which she played during a portion of the observation session.

Much of Katie's identity as a *World of Warcraft* player was intrinsically tied into her guild membership. In contrast to other participants in the study, Katie had only belonged to the one guild throughout her entire history as a player, and had little previous multiplayer gaming experience. Furthermore, Katie's guild was quite unusual in both size and structure. With less than ten players, it was exceptionally small, and whereas

most guilds are made up of a combination of real-life friends, game friends, and strangers, the members of her guild all knew each other in the outside world. As such, she was only regularly exposed to the game-related preferences, opinions, and playing styles of a close-knit group of players, within one particular game, and this history likely played a role in shaping her own outlook within the game.

This influence was evident during several points in our interview. For example, when Katie spoke about a mutual dislike of a particular part of the game world, she spoke on behalf of the guild as a whole:

> We're not fans, generally, the guild, of Kalimdor. We don't like it....The flightpaths suck, the night elves start here. Mostly 'cause we only had three night elves in the guild for a long time, and we just like to tease them. But mostly 'cause the flight paths suck. That's the main reason.

Although the primary reason for not liking the continent of Kalimdor emerged from its poorly designed transportation system, it appeared as though Katie linked this design problem with the enjoyment of teasing fellow guild members required to start out their characters on the continent. Disliking Kalimdor was not expressed as her exclusive, personal opinion, but rather as a shared one generated through several months of playing with the guild.

Another integral part of this combined guild identity was not considering herself or her guild members to be stereotypical *World of Warcraft* players. When showing me her guild's website, for example, she explained that the song lyric posted on the front page was written by two guild members as a joking tribute to an infamous dungeon run that ended in disaster. During her explanation, she added that, "we're kind of geeky, but we like to think of ourselves as geeky in kind of a different way," presuming the kind of geekiness associated with writing a song about playing *WoW* to be atypical of a "normal"

WoW gamer. Her guild, predicated on its relative exclusivity of membership, maintained a rather homogeneous set of values and cultural tastes. It did not recruit new members outside of real-life friends and acquaintances, and therefore did not often introduce new cultural elements into the mix. Katie herself claimed she did not often group up with players outside of the guild, because of past experiences with players quitting halfway through and leaving the rest of the group stranded.

Katie obviously took pride in this "geeky in kind of a different way" outlook, and at many points expressed distaste and bewilderment at the some of the habits of other players. Although her main characters were on a Player vs. Environment server (PvE), she had experimented with a PvP server but had gotten frustrated by high-level players "slaughtering" her lower level character. She had not tried role-playing yet, arguing that it was too strange. In her own words, she enjoyed her "own little realm of not quite as hardcore as everywhere else", and spoke somewhat disdainfully of both incompetent and "hardcore" players, expressing reservations about being grouped in either category. When I asked her if she often asked for help from other players in the game using the general chat channel, she replied:

> I don't know, sometimes people send them out, and it's kind of that in-class thing, where you're looking at them and going, "How are you asking that?" [spoken incredulously]. And so, I don't want to be that person.

Comparing the general chat channel to a classroom in which students are judged by others for asking what seem like painfully obvious questions, Katie indicated her reluctance to ask questions for fear of appearing stupid or naive. She also indicated that she found a lot of chat conversations to be fairly meaningless blather:

> I'm proposing the channel of my class is better than your class, just to get them off trade. So tired of that conversation, they just have it...worldwide, all the time, and they can just go there and do it.

As will be discussed later, all participants considered the majority of the in-game conversation of the general population to be trivial bragging at best, and malicious bickering at worst. Although Nardi, Ly, and Harris (2007) and Steinkuehler (2005) have studied the mentoring process in the chat channels of both *WoW* and *Lineage* respectively and found the peer culture in each MMO to be moderately helpful, Katie's experiences indicate more combative sides to this culture.

Similarly, Katie did not identify with the attitudes of what she referred to as "hardcore" players, especially those devoted individuals who are often satirized (and even celebrated) in the media surrounding the game. As one example, while discussing some of the game-related videos and art that she had seen, she said:

> I show some of my friends the Leeroy Jenkins, the famous Leeroy Jenkins clip, and I have to tell them all beforehand, I'm not this geeky. (Laughs) I don't do damage reports, I won't do probabilities. I will go kill it. That's all I got, sorry guys.

The "Leeroy Jenkins" clip to which Katie refers is an extremely popular Web video featuring a *World of Warcraft* guild preparing to attack a room full of enemies in a high-level raid. The players, communicating through voice chat, spend several minutes meticulously planning their strategy outside of the room (even going so far as to calculate the probability of survival), until finally a player named Leeroy Jenkins jumps up suddenly, bellows his name in a battle cry, and runs into the room, effectively destroying his guild's elaborate plans.

Although the video is quite humourous even to people not familiar with the game, Katie clearly felt obliged to distance herself from the habits displayed in it when showing

it to her non-gaming friends. She associated these activities (calculating damage charts and probabilities) with negative stereotypes of overzealous video gamers that circulate in popular culture. Although she used voice chat software to communicate with her guild, she was the only participant in the study who did not use any interface add-ons to assist with gameplay (admittedly, part of the reason why she didn't use these add-ons was that she felt they may slow down the performance of her fairly old computer). However, as both Taylor's (2003, 2006) study and my participant Rick will demonstrate, many achievement-driven players find it completely reasonable to calculate damage numbers and optimize game mechanics, even finding it a game in itself.

Although Katie found it difficult to understand the fun behind such a meticulous playing style, her own practices and knowledge indicated just as much dedication, albeit expressed in different ways. She was an outsider in regard to some practices, but still very much an insider to the world of the game. In her own social network, for example, I suspect that her own level of involvement with the game would likely lead her fellow guild members to label her as a "hardcore" player.

Rick

Rick was a computer programmer in his mid-thirties, married with three young children. At the time of our interview, he had been playing *World of Warcraft* for almost three years, since the game was released in November 2004. He was also an experienced video game player, having played a few of the earlier *Warcraft* games. He had even played another MMO, *Star Wars Galaxies*, for a few months. He began playing *WoW* when a few of his friends picked up the new game at the same time. They started a guild together, which later grew to over 500 people before disbanding just prior to the release

of the *Burning Crusade* expansion. From the remains of that guild, Rick and a few close friends formed a new guild and invited a hand-picked group of players to join it (many of these players had also met each other in real life, despite being scattered across the United States and western Canada). Rick took over the guild leadership from his friend at the same time, and had been in that position for almost a year. One interesting characteristic about Rick's guild was that it was a very dedicated raiding guild, but still maintained a mutual understanding among all its members that real life always took priority over the game. As a result, they only raided two nights a week (as opposed to some guilds that run a raid almost every night).

Although other participants in this study recollected feeling amazed or bewildered when beginning the game, Rick did not seem overly nostalgic about his early experiences, nor did he say much to suggest that he had trouble learning the intricacies of the game or its surrounding player culture. He indicated at one point that the game developers for *World of Warcraft* had essentially built a very effective in-game tutorial into the early levels of the game to accommodate new players. He was not interested in talking about his early days as a player, and instead consistently brought our discussion back to his current achievements as the leader of his guild.

He did give a brief overview of the characters he had played. His first-high level character was a rogue, but he found it too simple in terms of gameplay, so he switched to a warlock (widely reported by players to be the most inherently powerful of the nine available classes). Whereas other participants had a number of "alts", Rick had since concentrated almost exclusively on developing this one warlock character, arguing that in order to gain the skills and gear necessary for completing high-level content, players in

his guild required to focus on "one character, and one character only". He did, however, have one alternate character that he played regularly, a Horde hunter that he used when he wanted "to get a bit of an escape from the guild" and all the politics involved in running it.

In many ways, Rick was the quintessential power gamer echoed in studies by Taylor (2003, 2006) and Silverman (2006). Taylor (2003, 2006) has suggested that power gamers' playing styles are dominated by efficiency, goal-setting, technical proficiency, and a dedication to understanding game mechanics, and Rick certainly displayed similar predispositions. Although Katie may have found the idea of using damage charts and add-ons extraordinarily "geeky", Rick considered them an absolute necessity for play, and even a source of enjoyment in themselves (although he never stated this fact explicitly). The importance of these tools became evident when he demonstrated a software program used to keep track of his guild's performance :

> [This program] goes and it shows you everybody's damage, it shows damage taken, it goes and shows who's healing who. It's showing you what, in my case, what spells I was casting, how much damage I was doing on average, how many times I was critting [making a critical hit], what my average crit rate was, and how many times I was missing....
>
> We were working on Gruul, and I went through it and our DPS [damage per second] was lacking just a little. And so, I went through every single person, and on our forums, went and said: Ok, you need to do this, you need to do this, you need to do this, in order to improve, to bring us up a level. And for me, personally, I was missing ten percent of the time, and so I just changed some of my gear, put plus hit gear on, and ended up making up ten percent. And ten percent is pretty significant.

This combat log analysis program (interestingly enough, authored by another *World of Warcraft* player) allowed Rick to isolate and diagnose problems within his guild's performance and improve his own character's effectiveness. While this high-end

performance may not be a priority for many players, it was essential for Rick's competitive raiding guild, where even a few missed damage points could mean the difference between victory and defeat.

Although Rick may not have acknowledged it as such, it was clear that his leisure activity had become real work, or to use Stebbin's term, "serious leisure". He himself was committed to putting in the time to develop the required knowledge and skills to advance further, and expected his guild members to do the same. In terms of time that he invested, Rick stated that he participated in raids twice a week, and played on the side for several hours, meaning that he played upwards of twelve to fifteen hours a week. Beyond his playtime however, he also spent several hours a week on his leadership duties of researching and organizing events:

> Usually about two lunch hours a week, I'll either be looking at some videos, looking at some strats [strategies], or posting the groups....Tomorrow morning, for example, after tonight's raid, just before I go to work in the morning, I'll post what we're doing next week. And then later in the week, I'll go and actually post who gets to go, and then, as we get closer to the raid day, then we look and see who can't make it, make substitutes, and hopefully not actually have to change the event.

For many people, these associated duties may seem like a lot of work, but for Rick, the reward of all this legwork and of his relentless quest towards efficiency and technical prowess was a sense of achievement and pride in his own accomplishments, as well as those of his guild. In his words:

> Um, you know, I'm number one or number two on the damage charts every night. I play on the edge....I like the socializing part but I'm also interested in being at the top. Either the best in my class or the best in my guild.

At the time of the interview, Rick's guild was ranked 32nd on his server, which according to him was an impressive figure for a "casual" guild that only raided two

nights a week, and a figure that he treated as a "badge of honor". During a follow-up email, he reported that his guild had moved up to 20th place.

One of the problematic parts of play for Rick was a perceived lack of time. He recognized that he would never be able to commit fully enough to be truly competitive with guilds that raided more than two nights a week, but he nevertheless conceded that real life would always take priority over the game. Although he obviously found pleasure in optimizing the mechanics of gameplay and developing expertise in the game, he also admitted that one of the main reasons he plays *World of Warcraft* was for the casual social interaction it allowed:

> I have some friends that play it. It allows me to stay in touch with them. With the kids at home, I can't always go out in the evening time, so, uh, the kids go down, I'll hop on here and play for a couple hours, and still be able to walk away if, you know, someone gets sick upstairs or something like that....It's just nice to be able to converse with some people and not watch TV all night.

Yet throughout our interview, there was a clear tension between what he would like to be able to achieve with his guild and the varying levels of commitments from guild members. Although he expressed pride that his guild made real life the main priority, there was also a sense of regret that they couldn't compete at the same level as more involved guilds.

> If you're looking at any of the Alliance guilds that are higher than us, they're all raiding at least four nights a week. We do it two. All of us would like to raid every night of the week if we could, but where there's...real life is...(trails off)

Rick expressed some sympathy towards less committed individuals in the guild, but also appeared a little frustrated at the concessions that had to be made in order to accommodate these weaker players:

> We can't force people to max out their gear. Some of us choose to do it. But there's some people that their play time is really two nights a week and that's the

> most that they can afford to do. So, I can't fight them on that front, but I can force them to spend that gold and get the flask, 'cause I know that's, you know, in my case, an extra 80 damage. So, like, it really adds up, when you get all 25 people doing stuff like that.

Perhaps the most interesting product of this tension was the ingenious methods by which Rick motivated less committed guild members into improving their gear and skills. One method was to present statistical damage charts, which allowed players to see how well they were doing. In addition, he established a "Rate our Team" section on the guild website, where guild members evaluated other members' characters and made suggestions on how to improve them. Rick stated that offering indirect criticism in this manner had proven effective, because it was less confrontational than telling them directly.

As Taylor (2006) suggests, power gamers on the surface may appear to be anti-social, goal-driven individuals without 'real' lives, but in actuality, most high-level MMO content forces players to socialize and be social to each other, although not necessarily in the same way that many individuals would consider valuable or meaningful. Although Rick definitely had close friends in the game, his social interaction with many members of his guild was more akin to a business relationship than a friendship. These individuals joked around, they collaborated, but at the end of the day, Rick, as leader, had to ensure that everyone was performing adequately enough, or else relationships became strained. As Rick described it:

> As a guild leader that you really have to keep your hand on the pulse of the guild, and change things up, you know, if you find that people are starting to get growly.

Rick's guild, as a raiding guild, assumed a more utilitarian function by aiding in the advancement of its players, and therefore it differed significantly from more casual

friendship and family guilds that offer socializing as their primary function. His experience, however, shows how much coordination is still required in order to bring like-minded people together to accomplish specific goals. He spoke repeatedly about having to "play the politician" to keep everyone happy.

Gee (2007) has indicated that perhaps it is more accurate to describe the social areas generated by MMOs and other video games as "affinity spaces" rather than the more commonly applied term "community of practice" (as coined by Lave and Wenger [1991]). The crucial difference between the two concepts is that "community" implies belongingness and more close-knit, familial ties, when in fact those shared points of reference may not exist as strongly as one might expect them to be. Although Rick's guild arguably had shared goals and practices, many relationships were overtly professional in tone.

Still, it was clear that Rick valued these online relationships when he spoke about the future of his game-playing:

> I'd have a hard time, you know, dropping away and not seeing any of these people....For two years they've become fairly good friends. So, we all kind of cross our fingers and hope that Blizzard will keep the content interesting, so that there will be a reason to stay playing.

These friendships, in many cases, were embedded in the space of the game itself. Without new content to fuel the motivation for play, the expectation was that these business associates/friends would drift apart. Although Rick himself pointed out exceptional examples such as *Everquest* and *Star Wars Galaxies* in which friends remained playing long after game developers quit producing more content, he explained it was just "a group of people that really just stuck with it just because of the friendships

they made, not for the game itself." In fact, the main reason why he quit playing *Star Wars Galaxies* was because the social atmosphere of the game was not enough:

> You know, you reached the highest you could go on your skill trees or whatever, and then [*Star Wars Galaxies*] really became just a social game. Whereas, at least in *Warcraft*, after you've reached the end in terms of progression then they still have, you know, all the raids that you can participate in.

Rick's friendships were important, however pragmatic they may be, but it was also a balancing act. He definitely enjoyed the social interaction of the genre, but socializing by itself was not enough to justify playing time without having new challenges to face and an opportunity to compete and progress. Not surprisingly, when asked about Bartle's four player types, Rick defined himself as a combination of Socializer and Achiever. Both of these broad overarching motivations worked together in tandem to produce a type of extremely driven style of play that probably appears foreign to many outsiders to this sub-culture. To Rick, however, it was absolutely normal.

Dan

Like Rick, Dan had been playing *World of Warcraft* since its launch (over three years at the time of the interview). He was in his mid-thirties, recently married with no children, working for an airline in baggage and aircraft maintenance. Not only did Dan have previous experience playing another MMO, *Star Wars Galaxies*, he was also a seasoned video game player (possibly the most experienced of the four participants) and an avid player of table-top role-playing games. At one point, he claimed, "You name it, I've probably played it. I've played a lot of games." His wife was frequently out of town on work trips, and while she was away he had plenty of free time to play *World of*

Warcraft, more than tripling the time spent playing compared to when she was at home (by his estimation, 6-8 hours a week would go up to approximately 30).

Dan described the decision to begin playing *WoW* as a turning point. Two highly anticipated MMOs, *WoW* and *Everquest II*, had both been released almost simultaneously, and his friends were split between both games. After looking at screenshots and reading reviews on the Web, as well as hearing one friend recommend the game as "incredible", Dan opted for *WoW*, and he picked up the first available copy he could find (which due to demand wasn't until almost two weeks after the game was released).

Describing his early impressions of the game, Dan gushed freely:

> I was astounded. I couldn't believe it. Like, just the amount of area, like it was a world, and you're running across the whole world. And I think the biggest thing that made the impression on me in the beginning was going through one of the dungeons, in the Deadmines. I was blown away. Like, I just couldn't believe it. It just seemed like you were in this giant area, and you walk in and there's this big ship that's bristling with cannons at the end…I was awestruck, I think was the best way to describe it.

Much like Katie, then, Dan was at least a little overwhelmed by the size and complexity of the world itself, even despite having played a previous MMO and hundreds of other video games. He said that there were some minor difficulties learning the intricacies of the "game dynamics", but still found that the game itself had a reasonable learning curve built into its design, despite its overall complexity:

> The nice thing about *World of Warcraft* is that they kind of gradually, you know, you're not given too much stuff at once. But it was still a lot, because the game is fairly complex. I guess I take most of it granted because I've already learned most of it, but, yeah, just trying to figure out what you wanted to do, and just exploring. Like, there's so much stuff, you can just go everywhere. And I got lost a lot of times, and got into places I probably shouldn't have been, but it was pretty funny. That was a good time.

Although MMOs are very open-ended in design, they still have established methods for limiting the amount of information players receive at one time. Dan suggested the game was pushing those boundaries, but in a positive way; it was challenging without being completely overwhelming. Directly echoing Katie's comment, he also found pleasure in exploring places beyond his level, and the motivation to explore was a common topic in our interview.

When asked about Bartle's (1996) four player types, however, he responded that he was actually a combination of all four types. Although this response may seem like an easy answer, Dan's enthusiasm for all aspects of the game was so sincere that his response rang true, because he did love questing, leveling up, exploring, PvP, and everything else that the game had to offer. He did say that if anything, he leaned towards the Socializer perspective, because most aspects of gameplay actually served as vehicles for social interaction for him:

> I have to admit that I like grouping up with my friends and doing stuff. That will always be the favourite thing. Like, it doesn't matter what we do, you just get into a group and comedy ensues. It's just fun. Most of the time though, we'll quest and do some light raiding, and a lot of PvP.

Dan enjoyed this aspect of gameplay as much as Rick did, but the quality of his interaction with friends was markedly different. Whereas both players treated gaming as an activity-based method for socializing, much as some may treat watching a hockey game or playing a game of cards, Dan's game-playing was 'social' in the more typical sense that many people expect it to be, and had little of the business-like overtones of Rick's interactions.

This is not to say that Dan was not competitive, because he certainly was. In fact, one of the most intriguing aspects of Dan's gameplay was his love of PvP combat, of

competing directly against other players in battlegrounds, arenas, and the world itself (by playing on a game server where PvP was enabled). He was the only participant who disclosed an active interest in acting on other players, someone who in Bartle's typology is known as a Killer. He admitted that he received a deep pleasure in knowing he had intentionally disrupted someone else's game:

> You go in there to make sure that somebody somewhere in, I don't know, Oklahoma, is thumping his desk in anger because I just griefed his tauren shaman, or something like that.

Although "griefing" another player in this manner may seem overtly malicious to those not familiar with the culture, it is important to note that there are social norms governing this sort of activity, and a later section will discuss how transgressions of these norms are policed by players. Furthermore, most players, by joining a PvP game server, understand, accept, and even welcome the risks inherent with this sort of play. Dan offered further insight into the game within the game that ensued when two players encounter each other suddenly:

> It's kind of like the jocking, like you'll look over, and all of the sudden you'll see like some Horde hunter, some orc hunter, running towards you. Like, what's he doing? Is he going to attack you? Is he going to go on by, is he going after a mob? Like, what's going on? You've got that uncertainty, so you're kind of looking over, he's looking at you, you're kind of sizing each other up. Can you take him? And then all of the sudden, his friend shows up and he jumps you for sure.

Although Dan would likely be on the losing end of this hypothetical exchange, the pleasure of uncertainty and the challenge of the fight was often well worth the disruption.

Dan's first character was a hunter, which he chose because it was different than the typical character classes offered by most fantasy role-playing games. However, when a new friend joined, Dan began a new rogue character so he could play with his friend,

and he found he enjoyed this character "ten times more than the hunter", partly because he understood the game mechanics better and partly because of the rogue's stealth abilities. At the time of our interview, Dan had since levelled up several other characters of various classes, as well as several others he had abandoned before reaching level 70. When asked which characters he was playing the most at the moment, he replied:

> I'm playing Went, who's my healer. He's my healing DPS, or my healing character for arenas. Ghoultooth is my PvE guy, so basically if I need stuff farmed, make money, this is the guy I use. Rixit is my DPS right now, and Wrath is kind of for fun. He's like my melee, and [Rixit] is my ranged DPS, arena-class. So, just a little bit of variety.

Each of these level 70 characters fulfilled a very specific role. Dan's favourite part of the end-game was the PvP content (arena tournaments and battlegrounds), so he had several characters devoted to this end, each of whom required a specialized of set of strategies and gear in order to play properly. In addition, he had a couple administrative characters, one whose sole purpose was to accumulate goods and generate income to fund the other characters' activities, and one whose role was as "mule" to store money and gear. Finally, he had a character "kind of for fun", but who still doubled as an arena backup when necessary.

Although this kind of specialization occurred with other participants' characters, Dan's division of roles was the most detailed. Rick only had one main character and one alternate, and while Katie and Adam had explored a range of characters, none were developed as strategically as Dan's (although Katie and Adam both had "mules" as well, a common practice among WoW players).

Dan had belonged to two guilds in his time playing WoW. The first was a small social guild populated with close friends, which soon evolved into a larger social guild

that had since gone through several iterations. As he described it, "Every year, it's like the management changes". At one point much earlier in his career, he had left for another guild with a few friends, but personality conflicts in the new guild led them to return to the first. At the time of the interview, however, his guild had reached a comfortable state:

> I think we've kind of gotten past the point where we have to manage the inter-personal conflicts, because in a smaller guild, you know, somebody gets out of line, you know, you got to deal with him. Now, you know, if people leave, it's not such a big deal 'cause our guild's a lot bigger.

His own circle of close acquaintances had also significantly changed during his WoW career. None of the real-life friends with whom he began the game were still currently playing, but in their place he had developed other extremely close friendships in-game, including several he had since met in real-life. Two of his closest game friends had even come to his wedding, a statement in itself on the weight and importance of online friendships.

Adam

Adam, the youngest participant in this study, was nineteen years old at the time of the interview. He was working at a grocery store but planning on going to university the following year. A long-time gamer, he had previous experience with several of Blizzard Entertainment's earlier games, including *Warcraft II*, *Warcraft III*, and *Diablo II*. Although Adam had been eager to play earlier MMOs like *Final Fantasy XI*, he was too young at the time to have the credit card required for the account subscription, so when *World of Warcraft* introduced its pre-paid game cards, he finally received the chance to play.

At the time of the interview, Adam had been playing *World of Warcraft* for over two years, but his actual level of experience with the game was quite illusive due to his playing habits. Adam referred to himself as an "alt-oholic", someone who continually creates new characters (or "alts") rather than sticking with one or two main characters. In Adam's case, he switched characters without leveling up any of his older ones first. As he described it:

> I wanted to try everything, but everytime I kept trying something else, I thought, oh, that's really better too. So I'd play that for a while, and then I'd get bored with that, and then I'd try something else. I've probably played every race, and almost every class.

His first year and a half of play, then, was dominated by experimentation, and as a result Adam had a very broad range of experience playing the early half of the game but very little with the latter.

When the *Burning Crusade* expansion was released in January 2007, he explained that he finally decided to settle on one character, a blood elf warlock, and force himself to level it to 70:

> I'm going to stick with him, he's going to make it - 'cause my friends were getting mad. Like [my friend] Austin, he got the game to play with me, but I kept deleting characters over and over again. So he's like, screw it, and he kept his character to 70...and I was still 20 when he was 70, and it was ridiculous. But finally, okay, this blood elf, I'm sticking with him, and I'm playing him. And so yeah, 60 is the highest I've gotten right now.

Not only was Adam's friend angry with him for constantly switching characters, but Adam himself was clearly frustrated with his choices and a little regretful, because he had managed to effectively miss out on all the level 60 raids of the original game (which were now passed over by players in favour of level 70 ones). He had resolved that he would work at this single character until he reached level 70, so he would be able to play all the

Burning Crusade raids, as well as the new expansion content, *Wrath of the Lich King*, when it came out in late 2008. There was a definite sense that Adam was making up for lost time, and as we will be see in the next chapter, he was making use of a lot of information resources in his current game in order to progress more quickly. Even more interesting, he was also doing a lot of advance preparation for the endgame, which he would likely still not reach for several months.

Adam was very shy, and somewhat timid overall, so it was not surprising to find he was the least socially connected of the four participants in the study. He saw one of the benefits of playing *World of Warcraft* was that it forced him to socialize with other players:

> You're talking to strangers all the time, right? You kind of don't have a choice but to be sociable, 'cause you try to play the games by yourself, it's not possible. So I guess it has made me a little bit of a more outgoing person, more sociable to other people.

He only had two very close real-life friends playing the game, who both, along with himself, belonged to a large casual guild. He did not mention any close in-game acquaintances. Overall, he was happy with his guild, saying that they were both knowledgeable and friendly, and he knew that once he reached level 70 he would be able to raid with them. In general, he was very conscientious in all his interactions, and seemed constantly worried about offending others. When he was in groups he often felt intimidated by more experienced players, and as a result he often studied up on an instance before running it, because he did not want to be responsible for ruining it for his group. As he argued, "You don't want to be 'that guy', so it always helps to have a general idea of what you're doing."

When asked about Bartle's four player types, Adam said that he was a mix of Achiever and Explorer. As he put it, his goal was to "level up and just to see as much of the world [as possible]". Given his propensity towards creating new characters (each of which start in a different area of the world), he seemed much more attracted to exploring a broad swathe of content than he was to goal-setting and leveling up. This perspective was now shifting since he had decided to focus on a single character. He was working his hardest at making efficient progression through the remaining levels, but admitted his attention in the game sometimes waned during this process. He stated that he regularly played three or four nights a week, but the time spent each evening varied considerably:

> On average, [I play for] three hours a night, but sometimes I'll play for five, and sometimes I'll play for 20 minutes. Like, I just can't play anymore, or yeah, I just can't take it.

Later in the interview, he said that he had been "re-enthused" to play since recently moving into the *Burning Crusade* expansion level, because he was "seeing new things for once."

Nevertheless, there seemed to be many points in Adam's *WoW* career where he was not playing for the sheer pleasure of the activity, and a common theme emerging from his discussion was that serious gameplay required a significant amount of work. According to him, there were many points where "grinding" (doing a repetitive task ad nauseum) was absolutely necessary for success:

> Sometimes you just have to. You have to just stop, and kill a bunch of things, and just get your gold up, before you can move on. And I never did that, so I'd be kind of far in the game, but I'd be poor as hell, and I couldn't buy any new gear, buy potions or food.

Whereas in his early days of play, he was too impatient to play through the boring parts, he had since learned that it was necessary. Even now that he was getting closer to level

70, he understood that progressing through the end-game content to the most advanced raids would require a similar level of repetition, and he stated he was willing to put the time in:

> Once you have to do the raid grind, it's just going to the same raid over and over again. That's probably going to get kind of boring, but I'll just suck it up.

One recurring theme in MMO research is how these games challenge the traditional boundaries between work and play (Castronova 2005; Yee 2006). Adam was putting a considerable amount of time and energy into reaching the endgame, with the expectation that he would then have to put an equal level of effort into the endgame. It seemed that, unlike Rick or Dan, he received little intrinsic motivation from progress, in and of itself, so one could not help but wonder what he actually found to be fun about the game.

One answer to this question was that he found motivation in his vested interest in the back-story of the game, what he referred to as "the lore". He loved the story of the game world itself, and wanted to immerse himself in it as much as he could. He had played previous *Warcraft* games, read all the novels, and even owned the official board game. He liked the questing part of the game, "because the quests reveal more of the lore", and he was excited for the new expansion because it planned to build on the story of a previous game.

> I really liked *Warcraft III* because of the story itself, and I'm really excited for new expansion because the whole Lich King storyline, I'm a huge fan of it. A lot of people are saying that they don't get it, but if you're a fan of the universe and you understand, like, you're fighting the Lich King in the next expansion, that's kind of exciting. Like, this is the dude you have to kill.

Adam's pleasure in the narrative differed significantly from other participants; Dan (and to a lesser extent Katie) enjoyed the fantasy genre as a whole but had little inherent interest in *WoW*'s back-story, while in my mind it was questionable whether Rick

actually cared whether he was playing a gnome or a pink rabbit as long as he could be better than everyone else at it.

For Adam, however, playing the game meant exploring the narrative space of the game as well as the physical space, and participating in the legendary battles he had read about. To do that required him to go through the grind, in order to advance far enough to run the raids with important bosses like the Lich King and Illidan Stormrage.

His goal-setting, then, was not necessarily advancement for advancement's sake; while there was some definitely some pleasure in leveling up, I suspect he might have given up earlier if there was not the promise of much more exciting story content at the end.

His interest in the back-story also led him to frequently critique the logistics of applying narrative progression to an essential static MMO game world:

> You're not really going ahead with the story unless they release a new expansion....Nothing you really do changes the world, right? Like, you'll finish a quest, you'll kill a lot, like people kill Illidan, but there's always going to be the next guild that comes along and kills Illidan again.

He sounded a little frustrated about this narrative flaw of the game design, but being a long-time game player, he also recognized the technical necessity of having enemies "re-spawn" after dying, and having quests reset after they are done, because it allows the next players to face them. He understood intuitively that "everybody has to experience it", and that it would not be fair to players otherwise.

There were several points at which he mentioned these gaps between the game system and the logic of the narrative laid over top, and although he did not admit it outright, it seemed as though he had spent a significant amount of time analyzing the game world through this meta-narrative lens. As one example, he commented on why

his warlock would be performing the rather demeaning task of collecting buzzard wings for a quest:

> Considering, like, the story of your character, I'm like this powerful warlock, I'm collecting buzzard wings for this goblin....I'm like, "Would my character actually be doing this right now?"....Even given what your class is like, like warlocks are supposed to be dark people. They're not friendly, but you end up helping a lot of people. A warlock really wouldn't do that so much.

Adam obviously had trouble reconciling his personal view of his character as an evil warlock as someone who completes menial tasks in return for a little money. Although both Dan and Katie mentioned the designed logic of the game narrative, for Adam it seemed to be at the forefront of his gameplay.

Conclusion

In this chapter, I presented gaming profiles of four individuals: Katie, Rick, Dan, and Adam. In addition to biographical information, I described their history playing *World of Warcraft* and discussed what aspects of gameplay they found enjoyable or interesting. The next chapter will focus exclusively on players' information use for game-related purposes.

CHAPTER 5

Information Use in the Game Context

Each participant in this study used game-related information and information sources in a variety of ways, yet there were some points of comparison across all four accounts. First, despite the thousands of *WoW* information resources and software add-ons available on the Web, the players in this study drew from a surprisingly small pool of commonly circulated and discussed Web resources (less than a dozen in total), and used only a small handful of software add-ons (Rick probably had the most installed, while Katie, as mentioned earlier, had none). Second, the most important information resource for participants was, by far, their own social network of friends and guild members (and to a lesser extent, other players with whom they interacted). This reliance on social networking extended far beyond asking direct questions, to observation of other players' gameplay (most often within the game) and comparison of other players' characters with their own. Finally, these participants used some similar types of information, but the meaning they received from this information and how they put it to use was considerably varied, largely inextricable from issues of context and personal preference (as were the situations under which they resorted to active information-seeking).

In this chapter, I outline four basic categories of information that participants in the study described using, as well as provide examples of how they were used. These categories are:

- Goal-based information
- Strategy (both playing and character-building strategy)
- Social information

- Cultural information.

The boundaries between these groups are necessarily loose, because it is difficult to compartmentalize players' behaviour into one type or another. For example, information-seeking with the purpose of developing playing strategy for a group requires equivalent amounts of talent specialization (character-building), and shared vocabulary and practices (cultural information).

Goal-based Information

Goal-based information, for the most part, prevented players from "getting stuck". Although *WoW* is not structured the same as linear adventure games in which players move through levels to a defined end, the quest system still requires players to complete specific tasks in order to gain experience points. When encountering difficulties in a quest, players can choose to abandon it and work on something else, or even return to it later, but often they have already committed some time to a quest and want to see it through to the end. In addition to completing quests, players often get stuck when looking for specific non-player characters (NPCs) such as vendors, quest-givers, and flight-masters.

When I asked participants whether they had a procedure for dealing with situations where they were stuck, lost, or simply unsure of what to do next, they carefully described under what circumstances they would resort to outside help, and what sources they would consult to solve their problem. Although their actions understandably varied according to the difficulty of the quest and the context of their situation, there were some shared habits and common procedures among participants.

Both Katie and Dan, for example, were willing to spend an extremely long time wandering around looking for a particular quest location before seeking help, which was not surprising considering how both described themselves as being motivated by exploration (at least in part). However, Katie was generally more amenable to the idea of consulting other players or external resources to get out of dead ends:

> I couldn't find the stupid pterrodaxes, and I think I walked around Un'goro Crater about five times looking for these guys. So it just depends on how long it actually will take....But, yeah...with the riddles, it's immediate. I read through them about twice, and it's like, I don't know what this is. And then I just go and I just *Thottbot* it.

She revealed that she was willing, then, to spend the time searching as long as she perceived her actions would eventually lead to the completion of a goal. With "riddle" quests, however, she instantly went to the *Thottbot* database, because these particular types of quests had proven beyond her capability and usually very frustrating in the past. Katie felt compelled in most cases to give it her best effort, but experience had taught her that some quests were essentially too difficult to be fun. In those cases, it was okay to go outside of the game; she even added later on in the interview that it made simply made sense to look up game information since it was readily available. Inherently, she did not view this practice as cheating, although she did mention that she believed relying too much on this type of support would ruin the fun of the game.

Dan, however, was much more reluctant to consult outside sources for information unless absolutely necessary:

> A bunch of my friends would get their solutions on the Internet, and I'm a little more old school. I like trying to figure out problems on my own. So I'd sit there and I'd kind of dig through and just keep on at it until I could figure it out, and then if I was really stumped though, I'd ask some of my other buddies that, you know, are about the same level to see if they knew. And then if it was really really bad, I guess as a last resort, you just type in certain keywords in Google and

go from there.

Consalvo (2007), in her analysis of cheating in video games, discusses how game players have extremely varying opinions about what practices actually count as true cheating, and under what circumstances they consider consulting external information sources for help as acceptable. Dan, who was more than ten years older than Katie, appeared to identify himself as part of an older generation of gamers who grew up without strategy guides and took pride in his self-sufficiency and determination (see Consalvo [2007] for a history of strategy guides). Furthermore, he suggested at a couple of points that because players had access to so many information resources, they relied on them rather than playing through the game and finding the way for themselves, thereby leading to an overall 'dumbing down' culture in the game. For this type of information, he clearly privileged experiential learning as more valuable (or fun) than information-seeking for quick answers (although he was perfectly content to use external information for strategy and character-building).

The other two participants, Adam and Rick, did not indicate that they had as much of a moral dilemma when referring to outside resources when stuck at a certain point in the game, nor did they seem predisposed to spending as much time figuring out a problem of this sort. These preferences were also not particularly surprising because both players identified themselves as being motivated by achievement factors in the game. Rick in particular focused on efficiency and goal-setting at the expense of most other parts of the game, and although Adam tended towards exploration over quick advancement, this disposition was being overridden by his desire to reach the end-game.

Although Rick did not spend much time talking about leveling up during the early part of the game (when there is arguably the most potential to get stuck or lost), it was clear from his behaviour that he had no problem making use of all resources at his disposal. During the observation session, for example, he would toggle between the game window and several Web browser windows, so he could refer to a couple of information resources and then resume playing.

Adam did spend a moderate amount of time exploring and trying to finish goals by himself, but his comments suggested that this process was sometimes a little pointless and frustrating:

> If I'm going to a new zone, and I need to know where, a camp is, like, where the flight path is, I'll wander around and then I never find it somehow.

To solve this recurring problem, he had learned to consult outside information sources to get exact coordinates of locations. One of these sources was the authorized *BradyGames* strategy guide (one of the few print resources used by participants), which he also found useful for organizing the order he completed his goals. In addition to using the print guide, Adam also clearly explained other methods that he used to solve knowledge gaps:

> So yeah, I ask the guild, then...um, I used to ask the general chat, but I stopped doing that 'cause no one really helps, and then I would either go on *Allakhazam* - *Allakhazam* is where I usually go for my quest information, 'cause they have a good quest interface that I really like....There was a lot of quests where I had to find something, but I wasn't sure where it was, and so I went on *Allakazam* and they would give you coordinates and things of where to go.

What emerged, in fact, was that participants (except for Rick) described a fairly similar procedure for acquiring point-of-need, goal-based information. First, players would attempt to work through their problem, through trial-and-error exploration in the game itself. Secondly, they would try to contact associates (i.e. friends or guild members)

through a private chat channel. If no associates were available, players sometimes asked their question in the general chat channel (although, both Adam and Katie hinted that this option was often the least helpful, and it for them it definitely appeared to be a practice that faded over time as they became more confident and knowledgeable). Finally, players resorted to going outside of the game to consult a Web resource or strategy guide.

This procedure indicated a common preference among participants to contact other players first when encountering difficulties. Part of this preference was explained by a technological reason: it was easier to send out a quick chat message in-world rather than toggling out of the game and opening up a new Web browser window. As Katie argued:

> It's way easier to just send out a chat that just says, you know, anyone run this quest and know what I'm supposed to be doing here?

Beyond ease of use, however, these participants indicated that they had at least one friend or guild member (and often many) who was usually further advanced and more knowledgeable about the game in general, or who had at least already encountered the same problem and knew a solution. The answer provided by other players was quicker and more convenient than searching an external resource, although sometimes less accurate. In terms of locating something, it would be a lot more precise to receive exact coordinates (as Adam would from *Allakhazam*) than it would be to receive a general description from another player ("It's in the north by the lake."). Katie indicated that, for her, it was more fun just receiving the general description because she still had to work out the details.

Overall, goal-based information was often deliberately sought out at point-of-need, most often to limit the time spent on a particular task. Consalvo (2007) argues that

one of the main motivations for "cheating" in video games is to speed up a limited amount of playing time. To this end, my participants commonly used goal-based information in similar ways as those described by Consalvo: to save time by avoiding dead ends, aimless wandering, and repeated deaths. Although they had preferences that informed under what circumstances they would move outside the game to find answers to a specific problem, these preferences were heavily influenced by context. Each instance of goal-based information seeking was bound by situational factors such as playing time, ease of access to help, location in the game world, perceived difficulty of the task, and past experiences with similar problems.

Strategy

Strategic information, in contrast to the immediacy of goal-based information, was built up over time through casual research, scanning of web resources, experiential learning in the game itself, and conversation with other players. This kind of information was reflected upon, synthesized and then incorporated into practice by players, in order to improve their gaming skills and allow them tackle more difficult content.

Strategic information actually refers to two different but closely related types of information being integrated into players' knowledge. The first is playing strategy, in which a player analyzes the properties of the virtual world and opponents within it (both mobs and other players) and develops common procedures for navigating the world, determining roles while grouping with other players, and defeating opponents. The second is character-building; how players research what kinds of talents, skills, professions, and gear (equipment) are available to their characters, as well as how to best

make use of these properties in order to enhance their survivability and competitiveness in the virtual world.

Like most types of information discussed here, these two kinds of strategy are not mutually exclusive. As we will see, Dan's PvP strategy drew heavily on knowledge developed through his own character-building, while any strategy developed for a group setting requires a necessary understanding of each character's strengths and weaknesses in that group. In general, playing strategy discusses outward-looking playing styles, while character-building looks inward to the development of skills and abilities.

Playing Strategy

All participants described broad playing strategies they used to navigate the game content and move through the world. For the most part, these strategies were developed and refined in the world itself through situated experience playing the game. Katie, for example, described the common practice of completing several quests in the same area at once, thereby reducing travel time through the world and optimizing the amount of experience points gained during that time.

> I learned second time through Goldshire, that when you hit an area, the first 5 quests are gather this, gather this, gather this, gather this, and if you do them all at the same time, you just kill everything, and then you come back and hand everything in it, it takes less time.

Many of the quests in one location are handed out by the same NPC, so players quickly learn that combining trips is more efficient than completing goals one at a time. In Katie's case, this knowledge was something that she learned on her own, without assistance from guild members or other players. In fact, Katie mentioned that her guild members had not yet discovered this particular trick, and that they were amazed by how

quickly she advanced through levels. She even suggested that most of what she had learned was actually just natural intuition rather than active planning:

> Yeah, my dad says it's the same thing that makes me good at being the banker at Monopoly. And it's just that: I catch on to all the little pieces, and I do them right away. And that's just the way my brain is.

Katie used a similar form of knowledge when buying and selling items at the Auction House (where players submit their items for other players to buy). By her account, she was able to "eyeball" prices and discern quite effectively which items could be sold for a profit, much to the consternation of her peers:

> Everyone's like "How can you be doing this?" I'm like, "People are paying me. Supply and demand, my friends. I have a supply, and they have the demand, it works out." And they were like, "But it's way too expensive". I'm like, "If they're paying it, it's not too expensive."

As a result, she said she was often richer and further ahead than most other players in her guild.

Other participants had similar strategies for navigating the world and its economy, but they often augmented their decision-making with supplemental information. Whereas Katie relied mostly on her own knowledge, Adam had a couple tools that he used to help him along. In terms of money management, he used a third-party interface add-on known as Auctioneer, which allowed him to scan the entire contents of the Auction House and determine current market value for items he was buying and selling. He also used the official *Bradygames* strategy guides to help him plan his route through the world:

> [These guides] don't have one for every quest, because the book would be like a bible, but it does have things for the starting areas....And it would tell you, it's best to go and do this and this because they're right beside each other, or you'll find that mob wandering in that area so you can go and do that.

The Bradygames guide served as a starting point for Adam, but overall it is not as comprehensive or as overtly didactic as some resources. Rick, always the overachiever, had taken the idea of "cheating" to a higher level, by buying an unauthorized power-leveling guide created by another player. This guide gives explicit, step-by-step instructions on the order in which to complete quests, so a player could maximize the amount of experience points gained and level up as quickly and efficiently as possible. Rick proudly stated that he had leveled up his most recent character in less than two weeks, playing several hours per night. Leveling generally takes several months, and although Rick usually devoted only two or three nights per week to *WoW*, during this period he was playing much more regularly than normal because he was trying to reach level 70 as fast as possible. He hinted strongly that the strategy guide, in this example, played an important role in this achievement.

Once again, Rick and Adam did not express any serious moral dilemmas with using these resources and tools, and it definitely seemed as though having access to this information allowed them to better structure their playing time and play more effectively. Rick could not have progressed as quickly without the power-leveling guide, nor could Adam save up as much money on his own as he could with the Auctioneer software. Dan seemingly adopted a much tougher stance on these types of resources, although he definitely still made use of them. When discussing software add-ons, for example, he argued that players sometimes relied too much on them to play the game:

> Sometimes I think those add-ons can be a bit of a crutch too. Like, people become too dependent to do their job properly. Like I said, if half the people had to play straight out of the box, I don't think they could do it, without all their different add-ons to make their game easier. I think I could, so - I don't know, that's just a personal preference.

Dan indicated that he liked a challenge, but as mentioned early, part of this stance was purely ideological. Like Rick and Adam, Dan also had some add-ons installed, but stated that he did not begin using them until he started endgame raiding with his guild (when he felt they became necessary for effective play). In other words, he felt there was a time and place for these tools, but players should not learn to rely on them.

Beyond everyday navigation and economics, a significant portion of game strategy was related to combat. One common strategy mentioned by participants was holding "agro", in which one extremely tough character (such as a warrior) captures a mob's attention by attacking it first, thereby ensuring all its aggression is directed towards him or her. Other players in the group help this "tank" player by attacking the same mob, but they must be careful not to draw agro themselves by inflicting too much damage on that mob and attract its attention to themselves instead. As Adam suggests, the underlying logic of "agro" in the game system itself is something that some players occasionally have difficulty picking up on through experience alone:

> Yeah there's some game aspects that I always have to explain to [my friend], like agro. He doesn't really get the agro mechanic of the game. Which, actually, it took me a while to get. Like, if there's a tank, don't try to fight agro with him, you know....Yeah, I had to read up on it a lot, 'cause I always felt like I was doing something wrong, but I didn't know what I was doing wrong.

In Adam's case, he perceived a vague problem in his gameplay, a sense of something wrong, and was compelled to read deeper into what was happening to his character while he was playing. He then tested out what he read, gaining practice by letting his Voidwalker (a creature that warlocks can summon) hold agro as if it were in a tanking role. His friend, on the other hand, had little understanding of this conceptual relationship and consistently "overnuked" the mobs when in group situations.

Although Adam was forthright about how he learned about this concept, it was clear that all the other participants implicitly understood it even if they did not articulate it as clearly. It is a fairly fundamental aspect of team play, especially at higher levels. Dan and Rick even had a software add-on installed that displayed in a bar graph on the interface exactly how much agro they were drawing in combat, so they could adjust their attack power accordingly.

Not surprisingly, the complexity of combat strategy required by players increased significantly as the game progressed and became more difficult. As Dan described it:

> Usually, like, the first couple dungeons that you went to, you could kind of just bring in anybody, and you could mash through it no problem, and then probably about halfway through, about level 30 to 40, you'd start having to bring in people in specific roles to actually fulfill things. You'd need at least one person that could heal. You'd need at least one person who could tank, or, you know, take the beating from the big guys, and then you'd probably have about 3 damage-dealers, DPSers [damage per second].

As time went on, the complexity of the encounters increased, as did the interrelated roles that players were required to play in groups. Beginning with early instances with five people, roles such as tank, damage-dealer, and healer are solidified through participation in increasingly difficult content.

Rick and Dan, as the more experienced players in the study, had generally developed much more intricate strategies than Katie and Adam, and it appeared as though information seeking and use played an increasingly prominent role in complementing the practical experience gained from play. These participants felt compelled to spend an increasing amount of time researching in order to push their game to the next level.

Rick in particular spent a great deal of time finding and developing effective raid strategies on behalf of his guild. With each new raid that they attempted, he went

through a multi-part process of collecting information, evaluating its effectiveness in practice, and then refining strategies to suit their needs. When coming up with a new strategy, the first information resource he consulted was *WoWWiki*, the player-created *World of Warcraft* encyclopedia (the site functions exactly like *Wikipedia*), followed by a *Youtube* search for videos of other guilds finishing the same game encounter. However, he made it clear that most player-generated information was only good as a starting point:

> We just started Tempest Keep the other night, so first thing that we needed to look at was the trash mobs. So, like, [*WowWiki*]'s really good for describing, you know, what it is you're encountering, how many you have. And then, each one has a link to the various bosses. The strategies that you start seeing up in the high, the higher level, aren't as good. Guilds don't like sharing. Even the Molten Core was really…all the strats were up there, but yeah, as soon as you got into Blackwing Lair, people would give you general stuff, but there's a few hints here and there, just little small things that make a huge difference that they never bother volunteering.

Some studies have explored how MMO gamers scaffold other players' learning through the discourse of the game (Nardi 2007) as well as through websites and forums (Steinkuehler 2005). In Rick's experience, however, this type of assistance definitely happened, but only to a certain point. Players may have been very helpful at lower levels of the game, but according to him, the high-level raiding guilds were not as forthcoming with strategy because they wanted to remain competitive.

Rick clearly understood this rationale behind withholding certain pieces of information. After he collected various strategies and passed them on to his fellow players, his guild would test them in the raid encounter, playing through them through multiple times, and revising the information to suit their make-up of players and particular playing styles. When all the problems were worked out and the guild had completed the raid several times successfully, the strategies became trade secrets, posted

only to the password protected area of their website for their own future reference. He explained their reasoning as follows:

> We don't necessarily want to have all these other guilds that are, you know, trying to climb the ladder, have our information, especially because they're taking recruits, you know, that we need.

Restricting the flow of information to outside groups allowed his guild to remain competitive with other guilds and attract new members. To draw in skillful players, they needed to show that they were capable and knowledgeable enough to complete high-level content. To that end, maintaining a high ranking on their server (as mentioned before, #32 at the time of the interview) allowed them to establish their reputation as one of the best part-time social raiding guilds in their realm. Rick described their server ranking as a "badge of honor".

Dan, as a PvP player who enjoyed battlegrounds and arenas instead of raids, offered another perspective on the type of strategy required by high-end PvP players. In his view, PvP strategy differed considerably from raiding because it had to account for the unpredictability of having other players as opponents. He also mentioned that the challenges offered by both types of content led to continual debate between players about the merits of each:

> I think kind of the raiders hold themselves better than the PvPers because they have to learn all these strats and you know, they have to work together in a unit to get all these fights down, and I think the PvPers think they're better because they have to deal with more fluid situations...because I mean, once you've beat the computer, you've beat the computer, but people will always change. It's never the same thing.

Although Rick's raid strategies required coordination of a large group and mastery of extremely intricate procedures, Dan's PvP strategies were more flexible, focusing on immediate assessment of other players and best practices for countering players of a

particular class or talent specialization. This kind of strategizing tapped into a reservoir of tacit knowledge honed by many years of practice, and the breadth and depth of this knowledge became evident during the observation session with Dan. At one point, he articulated some of it while explaining why his three-person arena team was having such a terrible time trying to win a battle:

> One mage is good, two mages is okay, but they're a little soft though, and we don't have any healing, so we really have to crush people quick and use our crowd control. And it ain't happening.

He acknowledged that the make-up of their team (two mages and no healer) made for a difficult fight. Unless his team took advantage of the mage class's inherent abilities to limit opponents' attacks (crowd control) and deal out a large amount of damage in a short period of time, they would lose their battles. He also knew that mages cannot withstand very much damage themselves and with no one to heal them they would not have the endurance of most teams (not surprisingly, mages are sometimes referred to as "glass cannons"). He understood how to leverage the benefits of the mage class while minimizing its weaknesses.

The most fascinating aspect of watching Dan and his team compete in arena battles was the almost instantaneous assessment of other players and on-the-ground decision-making that his team undertook. Within seconds after the battle had begun, the three players, communicating through voice chat, had already discerned the character classes and talent builds of their opponents, and from that information they predicted the most likely attack they would face and the best way of defending against it. In order to assess other characters that quickly, these players had to be able to recognize, by sight, the spells and gear available to each of the nine character classes (several dozen spells,

and several hundred pieces of gear), and use this information to decide on what talent specializations these players had. Once again, Dan described the thought process behind their actions:

> There's certain people you take down first. You can tell by gear.... That one where [my teammate] was telling us what kind of priest it was, of course he was 'shadow' because he obviously turned purple, but the other thing is that he'll have certain buffs, and certain buffs are related to certain [talent] trees, so he has to be pretty far down the tree to even cast those.

The other player's gear and specialized spells (buffs) indicated to Dan's team that this player had chosen to put his talent points almost exclusively into the Shadow talent tree, and therefore there were likely only a handful of spells that could be expected. From there, his team would need to have an in-depth understanding of their own character class abilities and spells, and which ones of these would be most useful in counteracting these spells.

Although Dan claimed that his PvP knowledge was gained mostly through sheer practice, at other points in the interview he suggested that his play was actually supported by a great deal of information from external resources. When asked, for example, about what decisions were involved in choosing gear and talents for his characters, Dan explained the importance of information-seeking in this process:

> Yeah, that's actually the research part. That's on the days when, you know, when you go to work, or you've got some spare time and you don't have the game on, you go on the Internet and just check stuff up. You check the forum boards, you check the related sites.

Dan's PvP strategy arguably came from his own research into creating and building powerful characters (a topic that will be discussed more in the next section) as much as it did from his situated learning while playing the game. Dan, having played a variety of character classes, had developed a thorough knowledge of most of these classes through

extensive reading in his off-time. This reading was not active seeking of particular pieces of information, but rather browsing of information over time: monitoring players' discussion on forums, taking note of recommended talents, and observing which class abilities players found were most effective against opponents.

Dan described his PvP strategizing as "fluid" in comparison to that required by raiding, which in some ways was definitely true. Having other human beings for opponents adds a layer of randomness that is perhaps not present in raiding. However, he was sometimes dismissive of the work that went into developing and executing raid strategies:

> People have been nailing these guys down for a year, like week after week, for a year. It's not rocket science. We're not the first person to go in there and try to figure this out.

Although Dan had participated in a lot of raids as well, he did not acknowledge the particular challenges of competitive raiding as being fun. Rick obviously found pleasure in organizing raids and adapting pre-established strategies to a particular make-up of players, while Dan perceived it as "trying to herd cats". Similarly, the time requirement of successful raiding guilds was too much of a commitment for him.

This attitude is perhaps indicative of the larger divide in the player population between raiders and PvPers. In some ways, the two distinct styles of gameplay and varying motivations for play lead to two separate and sometimes competitive cultures within the larger WoW game culture itself.

Character-Building

Dan's PvP strategy spills over into aspects of character-building, which might possibly be the most information-dependent area of the game for these players. All four

participants, regardless of motivation, spent the bulk of their meta-game research time on learning how to improve their characters and understanding the role they would play in group situations (although what they felt important to learn was highly subjective). Knowing how to play one's character properly, as it were, was a crucial element of successful gameplay and in many cases integral to developing good working relationships with other players in the game. Rick expressed the importance of character-building strategy most succinctly:

> You can enjoy the game for a very long time and not really know anything about your character, but there comes a point where you really have to spend some time, probably outside the game, finding out, you know, various abilities you would have, and how they can impact the fights.

As context for this statement, Rick offered the example of a previous guild member who was not performing to the required level. This player, who he described as "the nicest girl, for real", was consistently dying in a particular raid encounter (an outcome which often negatively affects the success of an entire group of players). After several "wipes" (in which the whole group was defeated in battle), Rick finally tagged her character with an icon so he could track what she was doing, and subsequently found out that she was standing in the wrong spot, casting spells at the wrong time, drawing the aggression of the enemies to herself, and basically undermining the entire strategy laid out by the group. To Rick, it was clear that she did not have the conceptual understanding of the role her character class (a priest) was supposed to play in this encounter, even despite explicit instructions.

Understandably, having a single member of a group jeopardizing that group's chance of success leads to some very disgruntled players. Beyond the fun of having a powerful character and being able to succeed at the game, the desire to not mess it up for

everyone else can also be an effective motivator for players. Adam, who was the most sensitive to making mistakes in a group situation, spoke about a past experience when he accidentally targeted the wrong enemy and attracted a whole brigade of monsters on to his party. He commented that "you don't want to be 'that guy', so it always helps to have a general idea of what you're doing". Although much of his knowledge had come from situated experience playing in groups and observing the roles that various character classes fulfulled in combat, the podcast that he listened to helped to establish his understanding of these roles more firmly:

> As you play more, and if you get a good group with someone who helps, which I've had, they'll give you tips, but the podcast really helped with that, because it goes specifically into what skills you should be using...like, they talk about the warrior and, if you're going to tank, this is what you should do, what skills you should be using, and in what order, and stuff like that.

Having the conceptual understanding of how to play a character is valuable for group situations, but it is only one part of building a well-developed character in terms of gameplay. As players advance into the endgame in which activities become increasingly group-oriented as well as more competitive, larger guilds sometimes mandate certain policies in order to ensure a certain level of quality and specificity in talents, equipment, and specialized knowledge, for the benefit of all members. Rick's guild, for example, stipulated that each member focus exclusively on developing expertise in only one character class. Even in Dan's casual guild, there were explicit instructions on what one had to do before participating in a serious raid:

> If you're going to be a raider in our guild, like to go to the serious stuff, and be productive, you have to be a certain build. So you have to be a certain talent build to be viable. You have to bring a certain amount of equipment, like you have to have a certain level, before you can start getting into the higher-end stuff, because obviously, if you aren't pulling your weight, then you're pulling down the rest of the group. And you have to be able to provide things like potions, the foods, like

> all that kind of stuff, and be ready to raid. So if you can't do that - oh, and you have to have the right add-ons too.

Character-building strategy at this level often involves a deeper understanding of the underlying game mechanics. Players must understand how to optimize their character classes' abilities through effective allocation of talent points, as well as find appropriate gear to enhance these abilities further. Third party interface add-ons are often required because they allow players to customize the organization of their character abilities on-screen and provide additional feedback about their actions (spell cast times, damage taken, damage done, agro levels).

Because each character class has several dozen spells and abilities, several hundred pieces of gear to choose from, and an almost infinite number of permutations for how talent points can be distributed, developing an understanding of how all these different parts work together necessarily involves a great deal of research. The talent point system, as one example, was an aspect of the game that all four participants had trouble maneuvering at one point or another. When Adam was asked what the hardest part about learning the game was, he replied:

> I think talents, 'cause when I first got to [level] 10, and from then on, I kind of didn't understand the talent thing so well. Like, I knew it improved my skills, so I kind of put my talents in erratically. I didn't have a build...but then as I went on and searched, I found specific builds, and of course, then I had to re-spec, which cost me a lot of gold. But, I mean, yeah, that was the hardest thing.

Talent points are first introduced at level 10, but the significance they have later on in the game is not easy for new players to grasp. A player is only given a limited number of talent points (currently 61), to put into three different specializations. Placing more points into one specialization makes a particular set of abilities stronger at the expense of another set, as well as unlocking other abilities later into the game. Players are allowed

to "re-spec" (re-specialize) for a fee (which increases with every re-spec). In Adam's case, he wasted a lot of his talent points in the beginning and was forced to spend money to reallocate points. However, the fee was enough of a penalty to encourage him to think critically about his decisions and plan out his next "talent build" more carefully. Part of that planning process was information-seeking; he searched game-related websites and forums, sorting through the various "talent builds" that other players had posted and determining which he thought would be most effective.

He clearly recognized that personal motivations had a role in gameplay, because he knew he had to analyze the builds he found and adjust them slightly to reflect his own preferences:

> Yeah, and people, how they play is completely subjective....there are some talents that I think are really good that people think are just terrible. And so...what it gets to basically in *World of Warcraft* is, play it how you want. I mean, your characters are going to be good or bad depending on how you play, not really how you play the character. And so, I would find a general build, and then I would think, I don't really want that talent, so I'll tip those two points and put it to this one.

The description above may give an impression of Adam's search process having a definite endpoint, but the reality is that the process of character-building tends to be much more iterative, changing through time as the player progresses through the game. Talents and gear considered valuable at one point in the game often change as the player moves into different content. Rick explained, for example, one situation in which he needed to 're-spec' because of a change in role:

> Somebody posted the damage meter at the end of the night and I was 26th. I just couldn't believe it, because up to that point, you know, I had always done very well. And so, you know, I went to the forums, and realized that there was a talent tree that most people followed prior to hitting level 60, but once you hit level 60, when your role changed, and you were assisting versus just going out there and fighting things on your own, that your whole talent and the way you played your

> character had to change. So, you know, that week I re-specced and went into MC, and I was third on the damage the following week.

The various aspects of character-building strategy are consistently popular topics in the larger discourse of the game, with many chat conversations, forum discussions, and web guides devoted to players debating which is the best talent build for particular classes in raiding, or what kind of gear is best for PvP. Rick obviously found a prevailing trend in what he was reading, and felt compelled to revisit how he was playing his character.

As Adam suggested above, it is often the motivation and play style of the player, and not the talent points and gear, that determines how the character will be played, a suggestion that other participants (including Adam, later in the interview) disputed. Nonetheless he definitely recognized the subjective side of creating a character. Rick, on the other hand, seemed follow to a very specific trajectory in planning characters, one based on combat and progression, and I suspect there would be little debate on whether his choice was the 'right' way to play. What is interesting is that a significant portion of the game discourse appears to support his disposition towards achievement factors.

Katie's experience serves to support this notion. Out of the four participants, Katie probably did the least comprehensive research in regards to choosing talents and gear. Like Adam, she admitted she had problems distributing her talent points to begin with:

> [My first character] was a complete mess by the time she hit 70, because I just did whatever looked cool....So I had to re-spec. And so now, I kind of just take that as my approach: I'll just pick whatever's cool, and then when they get to the point where I actually have to do something with them, then I'll respec it and put them into something particular. But it's taken me a while to adjust to the idea of specializing. I don't do it well.

She picked haphazardly at first and chose a specialization later, but curiously enough she did not revise this procedure with later characters, nor did she seem overly meticulous about re-allocating her points when it came time to decide on a specialization. She recognized that she was less systematic in her approach than some players, but she still did not seem to care. Part of this problem could have been that most of the information she had found regarding talents was not relevant to how she wanted to play, and therefore she often disregarded common instructions on how to assign points:

> I find a lot of the stuff online is, a lot of it's combat or PvP-directed, and that's actually not the area I like the most about the game. And so I find that, you know, everyone says go combat for a Rogue, 'cause it gives you the most DPS [damage per second], but I'm just like, "You know what? Yeah, but your stealth is useless. So I went kind of Assassinations/Subtlety meld, 'cause that gives me the most power in stealth, and coming out of stealth, which I think is most useful when you're in a group, and you're doing instances, which is what I like to do the most.
>
> And that's the same thing, like, with my shaman, the reason she's going healer is because healers are the ones that are most needed. You always see people looking for tanks and looking for healers, so the easiest way to get into a group is to be a healer or a tank.... So that's why she's going that way. So I guess it's kind of strange that my goal in this game is not the goal of most people.

Her last comment indicates again how she perceived herself as an outsider to many practices in the game, a perception that was likely further reinforced by what she found in the broader discourse of the gaming community at large. Whereas Rick and Dan (and to a lesser extent, Adam) all found the information they gathered from other players to be helpful, Katie clearly did not, because it simply did not match up with her motivations for play. She interpreted this abundance of online information towards one trend as an indication that her play style was significantly different from most other players.

While participants did spend time scanning these online discussions (sometimes as targeted searching, sometimes as browsing), an equally common method for

discovering effective talent builds and gear was to directly examine what other players were using. Both Silverman (2006) and Taylor (2006) have suggested that items act as visible status symbols of a player's skill and knowledge. Dan, at one point, offered an explicit explanation of this notion:

> If you're successful, then you're going to get better stuff, and it shows - it visibly shows on your characters because they can see what you've got. They'll check stuff out, and they're like "Oh, where'd you get the glowing crown?" I'm like, "Oh, well, we killed off a certain guy." "Oh, yeah, really, how'd you do that?" And I was like, "Oh, well, we did it this way. You needed this group makeup."

In this encounter, Dan's glowing crown is visible evidence of his success in defeating a particular enemy, and indicative of his reputation as a player (depending on the difficulty of the enemy, of course). Therefore, the incidental information sharing that emerges from this interaction is considered as being valuable, because of the sharer's established reputation.

In Dan's example, the information behaviour exhibited is relatively passive, emerging from the casual interaction between fellow players, but in many cases the social comparison process in which players engage is more active. Rick, for example, kept track of what more advanced players were doing by monitoring these players' activities through a tool on the *World of Warcraft* website:

> Blizzard's introduced the Armory, which allows you to look up other characters and see what their talents are and what their equipment is, and, so even to this day, I look at guilds that have progressed further than me and look at their warlocks to see what talent specs they're using...and frankly, I use that more than the forums now, because, I just simply don't have the time to wade through the crap that's in there.

From Rick's perspective, the Armory tool was much more efficient than the forums, because it allowed him to directly compare his profile with other players he knew were

good, rather than spend time evaluating the information posted on forums by random players.

Dan echoed a similar preference for direct comparison over third-party information. Although he still found the official game forums helpful, he had stopped scanning them as regularly because he felt they had become overrun with trivial postings from "forum trolls" who had "e-penis contests" in which they bragged about how good they were. There were still specific forums that he identified as being useful, and he discussed how the most important threads in a discussion had been filtered out by the game company for easy reference.

Nevertheless, Dan's primary method of gathering specific information about talent builds was still through direct comparison with other players that he knew personally. When demonstrating the Armory to me, he said, "Yeah, you can really check this stuff out now, so, you know, the really successful guys, you can see what they use." Even before the Armory was available (it was introduced approximately two years after the game was launched), Dan stated that talking to other players, as in the example above, was one of the best sources of information. The addition of a new tool just made it easier to collect information in a short period of time.

In general, Katie and Adam seemed less aware of these comparison processes; although they both used information resources like the Armory and *Allakhazam* to find improved gear and compare talent builds, they did not seem to explicitly target other players that they knew as readily or as efficiently as Dan and Rick. There are two possible reasons for this phenomenon. First, Katie and Adam's social networks were not as evolved. Neither had as many close relationships in-game nor as long a history on

their game server as the other two participants (the implications of which will be explored in the next section). Second, this tendency to compare may emerge more fully in the endgame, as challenges become more difficult and character-building becomes increasingly meticulous in terms of optimization. Katie, as one example, did not seem interested in exploring the intricacies of the game mechanics at the time of the interview, but there was evidence to suggest that this perspective was shifting now that she was moving into the endgame. She pointed out during the observation session, for example, that the gear that she had (green) was not very good compared to most players' (blue and purple):

> No, my gear's kind of crap. I've got basically nothing. Um, like, here, where's uh...All the 70s in here, blue, blue, blue, blue, purple. Yeah. Oh, he's got a green one, that's strange. Yeah. That's pretty common, if not more so, usually you get purples in there.

With this recognition came the desire to improve her gear and improve her technique, while still maintaining a generalist character. As mentioned in her profile, moving towards this goal was proving problematic because of her small network of friends who could help her.

Social Information

Social information relates to the process of "keeping tabs" on the other players, guilds, and events of a particular game server. *World of Warcraft*'s player population, like that of many MMOs, is split up among separate game servers. Each server mirrors the same in-world content (the software itself), but it often develops unique social relationships, rivalries and even a distinct economy through the emergent interaction of the several thousand players participating within it. Dan and Rick, as the players with the

longest histories on their respective servers were both very invested keeping track of server activities.

For the most part, social information was acquired through participation in pickup groups with random players, observation, and serendipity. Dan, for example, said he would see people from particular guilds around on the server, and began tracking many of the well-known ones by writing them down in his notebook. At one point during the interview, he took a moment to reflect back on some of the famous guilds that were on his server, many of which had since disbanded:

> Like, certain guilds will just fade out. Lost was a huge one. In the beginning, Lost was an Alliance guild that all they did was PvP. Like, they'd just go around fighting the Horde, that's all they did. They were awesome, like if you saw those guys roll in, you knew the crap was going down and the Horde was going to pay, and then eventually all their main players just - I guess they got bored and it dissolved. There's been a lot of cool guilds that went under. Ours is probably one of the older ones on our server, for sure.

Although he did not state this fact outright, it was apparent that the social history of his server was an extremely meaningful aspect of the game experience for him. His retelling of these events, and of past guilds that perpetrated them, was as tinged with nostalgia as any real-life memory could be, and accompanied by a sense of loss that many of these guilds had since disappeared. Jenkins (2004) has argued that video games generate emergent narratives through players' interactions with the game space. In Dan's case, experiencing the exploits of this 'legendary' guild was as fulfilling as any back-story generated by the game company.

Dan did have a more instrumental reason for keeping track of guild activities. Because his server was PvP-oriented, players and guilds would often develop grudges against each other, based on past interactions. When encountering a player of the

opposing faction in the wild, one of the first things Dan often did was see if he knew them:

> There's things like, I'll check up things like...the actual person to see who it is, because if you know them from before, you might have a history of dislike for them. Or you might like them, I don't know. Or the guild is a big one, guild tags. There's certain kill-on-sight ones.

According to Dan, "everybody on a PvP server has probably got their list" of other guilds or players who have gained a bad reputation, often through consistent "ganking" (killing other (less powerful) characters without provocation). Dan used guild tags (the text hovering above a character's head) to identify members of an offending guild. He kept a "kill-on-sight" list of offenders' names in his notebook, to be referenced whenever he encountered someone he did not know.

According to Dan, some characters even achieved a server-wide level of notoriety for their actions:

> There was one guy on our server that he'd sit there in Stranglethorn Vale for months, and he killed off probably an alt of every high level character in the game or killed them off as they were coming up....And it was just crazy. Like, if you say Twinkletoes, everybody knows who you're talking about. It was that dude, because he ganked everybody.
>
> And there was a couple of times when we'd get into an ambush party and wait for him in Stranglethorn Vale and camp his ass. Like, we'd get out the fire, and as soon as he died, we'd put a fire on his body, like a campfire, and wait for him to rez [resurrect]. And we'd sit there for an hour, hour and a half, waiting for him to log back on.

This character was well-known to everyone, but at the same time he became so despised as a result of his actions that other players began going to elaborate lengths to exact revenge on him. In fact, Dan suspected that Twinkletoes had probably either started

another character or quit playing altogether, because he had become such a target that he was always under attack.

Rick, playing on a PvE server where player-killing was normally disabled, did not have these vendetta-style interactions with his server population. However, as guild leader, he considered it his role to keep track of other players for purposes of recruiting new members:

> That's another thing that me and another guy do is we keep an eye out on other [server] guilds, to see what they're doing. Sometimes, you know, we notice that so-and-so got kicked from a guild, and you know, a few days later they're applying at ours. So you know, before they're even applying at our guild we know their history, and you know, right off the bat I just delete their application.

Rick's guild took the recruitment process very seriously. They required that candidates submit formalized applications (often with an existing guild member co-signing as a sponsor) on the guild website before being accepted for membership. They recognized that one problematic member could quickly undermine the social dynamic of a small, competitive guild, effectively ruining the "fun" for everyone involved. By finding out information about other players in advance, Rick was able to filter out potential troublemakers more effectively.

By the same stroke, there were also players that Rick clearly respected and would like to join his guild:

> We have one guild, ranked 47 U.S...Swords of Glory, this is the Alliance one. So I know a couple guys from it here. Not personally, but just by their name. And Shadownights, I know one guy in here. I've actually invited him to join the guild a couple times, but they raid six nights a week - can't do that. But no, they've made a presence on the server, and people know of them.

Rick actively recruited members using two methods. The first was by participating in pick-up groups with unknown players, something that he did not enjoy but felt was

necessary. The second was by submitting advertisements on his game server's official forum on the *World of Warcraft* website.

Dan and Rick's knowledge of their servers stood in sharp contrast to Katie and Adam, who appeared to care very little about what was happening beyond their immediate social circles. Once again, I attribute this difference to Katie and Adam having started the game much later than the other two, as well being less invested in competition overall. Silverman (2006) has suggested that player and guild reputations in *World of Warcraft* are much less important than they were in earlier MMOs, because *WoW*'s design has made it much easier for the average player to reach the endgame. There are now considerably more high-level guilds in *WoW* than there ever were in *Everquest* (a problem that is further compounded by a larger subscriber base in the millions), so instead of a handful of powerful raiding guilds on each server, there are now hundreds. Consequently, the achievements of high-level guilds are less meaningful overall.

I suspect that Dan and Rick, having played the game since its launch, avoided much of this problem. They started playing when there were fewer players overall, and before anybody had reached the endgame. They were able to witness first-hand how these early guilds advanced through the world in comparison to their own progress. Katie and Adam, on the other hand, begun the game after many of these players had already plateaued. In some cases, they were likely grouping up with players who were leveling up their second or third character. The glut of characters and guilds meant that distinguishing the good from the bad became more difficult. Without a direct need for

acquiring this kind of information (as Rick obviously had), it was not pursued any further.

My interpretation of events is not directly supported by anything that Rick and Dan said, but there was a sense from both participants that social aspects of the game had changed significantly over the last three years. Dan, of course, had noted how many guilds had disbanded over time, but he did not explicitly discuss new ones that had come up more recently. Similarly, Rick was much more aware of older players who had also been playing since launch than he was of new talent. He did comment that it was extremely difficult to recruit new talent using the forums, because there was so much activity on his server's forum that his posting was already buried three pages deep within minutes of submitting it (although conversely, he said that there was a general shortage of players looking for guilds). In short, it seemed that *World of Warcraft*'s success had made it less intimate in some ways.

Cultural Information

Next to social information, cultural information was probably the least tangible or actively sought out form of "information" used by participants in the study. This category refers to all practices and texts through which players learn the culture and ethos of the game world; in other words, everything that was needed by participants to immerse themselves in the affinity space of the game, including the specialized vocabulary, practices, and social norms associated with that space.

Much of this information was gained through interaction with other characters in the world. As one example, Katie, while still learning the game, described one of her early misunderstandings about what was happening on the screen:

> I'm sitting there running through, Goldshire, and my sister, I'm asking her about [things] - there's other characters on the screen, running around the screen, and she says, "Well, yeah, those two, they're dueling.", and I wanted to go apologize because I interrupted their duel. "But they don't care." [Her sister replied].

Katie, entering her first major town in the game world, encountered for the first time other players dueling (a common activity in which two characters agree to engage in PvP combat). She believed she had interrupted the activity and annoyed the players, when in actuality they probably did not care. She learned, in this example, that she had not transgressed any social boundaries, and beginning with this early interaction with other players she slowly started to understand which actions were permissible within the play culture of the world.

Adam, meanwhile, spoke about how he learned about "looting" rules, another highly contested social norm in the game culture that often varies from group to group.

> Group looting roles, I mean that's very - it's a very hot topic, 'cause you have people who 'ninja' items and nobody likes that....our guild rule is just let the timer run out and then let the game choose. So no one rolls for it, it's just the game chooses who gets it.
>
> But I didn't know that, when I first kind of raided, or the first instance I did with my guild, which I think was Sunken Temple. And there was a ring I really wanted, and I hit Greed, I didn't hit Need, but they weren't too happy with me about that. Only they weren't, like, yelling at me, which most people would do, but they're just like, "Next time, just be aware of this."

Ninja looting is a blanket MMO term that refers to any underhanded maneuver or deception used to unfairly claim an item. Although *WoW* has dramatically reduced the ways in which players can 'ninja' items, there are still gray areas to the looting system that are often negotiated among players. The game itself has a system whereby each character in a group 'rolls' for rare items that are found on mobs using a random number generator. Furthermore, each player can specify whether they 'need' or 'greed' an item,

with the former choice taking priority over the latter. If the timer runs out before characters have a chance to roll, the item is randomly given to one member of the party. In this example, Adam quickly learned that he had unknowingly transgressed his new guild's established procedure.

Adam did indicate that his broader outlook on negotiating looting policies in casual groups had been influenced through exposure to meta-game information as well:

> The pick-up groups, it's important, like they say in the podcast, it's important to establish those rules before you do anything, 'cause you really don't want to be upsetting anybody, 'cause it ruins the whole group dynamic...like if you get a priest mad at a dude, he's not going to heal him, and it's just going to be...You want to keep the whole group dynamic together, so you've got to make sure that those are established before-hand, and not while you're rolling to pick something up.

Adam regularly listened to *WoW*–related podcasts that often explored the more unspoken rules of the game, such as group roles and looting procedures, supplementing his play experience with strategies for handling difficult or problematic negotiations with other players.

Another socially-disputed area of play is "ganking". As described in the previous section, Dan and his friends had begun hunting down and killing the notorious Twinkletoes because he was "ganking" players beyond the acceptable limits of the culture. Borrowing from Salen and Zimmerman (2004), the game, as a formal system of rules, allowed for these kinds of activity, but the cultural system of rules perpetuated by the body of players did not. Twinkletoes faced punishment for transgressing those more socially mediated rules.

These sorts of social norms may exist as largely unspoken in the earlier part of the game. Moving on towards the endgame, where the level of involvement becomes much

more intense and the rewards much better, these norms begin to manifest themselves as strict policies, written up and posted on guild websites. As Dan argued, developing and enforcing these policies were an inevitable part of a growing guild:

> In the beginning, we were all friends and it didn't really matter. After a while, because we got bigger and we had to add more people that maybe weren't quite as conscientious as others, like, I guess they were a little more greedy, we had, like, a comprehensive rule system.

Both Dan and Rick's guilds had DKP (Dragon Kill Point) systems posted on their website, that calculated exactly how the loot from a raid would be distributed among players. Dan offered a brief explanation of the system to me in detail:

> I can't remember what it stands for, but basically...you work at points, so the more you show up, and the more loot drops, the more points you get, and eventually if you find an item you want, you can spend the points to buy it.

Although Dan witnessed these systems in action, Rick, as guild leader, likely had to manage them on behalf of his guild. His guild's website appeared as though it used specialized DKP software to calculate the numbers (although I did not ask him directly if it did).

It was interesting to discover that although Dan and Rick both knew about DKP systems and how they worked, neither of them could remember what the acronym actually stood for. One thing that was strikingly obvious when I began playing *World of Warcraft* myself was the amount of specialized vocabulary that was involved in conversation, much of which had become a naturalized part of players' understanding of the game. A few of the terms used in this chapter alone include: mobs, PvP, grinding, ganking, agro, ninja looting, tanks, healers, and camping (the list goes on). Each term has a specialized meaning within the semiotic domain of the game, much of which draws from the larger domain of MMOs, video games and Internet culture as a whole. Terms

like 'mob' date back to the days of MUDs, while many chat abbreviations (LOL, AFK) have been imported into the space from the larger body of Internet slang.

When I asked how they picked up on the specialized vocabulary of the game, my participants, for the most part, had little to say. Rick in particular treated the language of the game as being almost self-evident to anyone who was the least bit familiar with video games and the Internet, although he did admit that there were some specialized terms that even he did not know:

> I think it's interchangeable between any of the MMOs. I think it's more pop culture lingo than anything. You know, myself, I would have probably overheard it and just started using it. And you know, even some stuff, like I had to ask people. Like a twink. I'm like "what is a twink?"

Dan and Adam, thanks to their extensive experience as video gamers, also had few problems traversing this territory. Adam said that most of what he learned playing *Diablo II* transferred over directly to *WoW*, with the exception of the acronyms used to describe people and places in the specific game. Even then, he learned it fairly quickly through immersion:

> It's generally all the same. Just specific in-game things, like Auction House, I wasn't sure about. But yeah, you pick up on it the more you play...and if you keep the general chat open, which unfortunately I do, and I don't know why, because no one ever says anything interesting in there, but, yeah, you pick up on things.

Katie, the least experienced video game player, probably had the most to say about learning this vocabulary. She described the process of learning these specialized terms as a quite natural process of gradual immersion:

> You start out in the low level areas where people don't use it as much. The only players who use it are the people who are playing alts, and then they're blasting through there anyways 'cause they know how to do everything already. So the people who are wandering around confused are not using the lingo anyways, and so by the time you get to the point where it's actually happening a lot, like I said, I had already figured out most of it.

She said she realized quite suddenly how naturalized it had become when she was having a conversation with another *WoW* player in a group of mostly non-playing friends:

> I'm talking, and the rest of the group around us just gave us the weirdest look. And I said "Can you guys understand anything we're saying?" And they're like, "No. Completely different language."

Katie, as a relative outsider to gaming culture, still found these aspects of discourse much more exciting than the other participants, largely because they were not as ingrained.

As mentioned before, one aspect of the overall game touched upon by all four participants was that the quality of the discussion in the general chat was typically quite poor. Adam indicated that it did have some positive aspects in terms of enculturating players into the game, but there were still plenty of negative elements to 'listening in' on the chat channel. Dan, in a more extreme position, condemned much of the slang and abbreviations used by the general populace as simply lazy:

> I don't use a lot of, what is it, acronyms? But I understand it all, all that garbage-y…I think it's just lazy people who don't know how to type. I don't know, I kind of distanced myself from it for a bit because a lot of the stuff I find is a little immature, I guess. I usually stick more to my group of people that I know, and then kind of just phase out all the other stuff. 'Cause there's a lot of garbage that goes through there, and a lot of it is pretty foolish.

Communication in the game, as with any semiotic domain, was far from being socially unified. Dan suggested that one method of discerning which players he wanted to play with was their typing mannerism and the language they used, implying that the quality of typing was directly related to maturity level.

Up until now, I have been talking about cultural information collected and used within the game to facilitate immersion into the overall ethos of the game's affinity space. Beyond the borders of the game, however, meta-game resources serve to both

produce and further reinforce these practices and values. For convenience of discussion, I have broken these resources down into two categories: information resources (such as databases, software tools, and forums), and cultural texts (such as machinima, comics, art, and articles).

As mentioned in the introduction to this chapter, thousands of *World of Warcraft* information resources exist on the Web, but participants in this study typically used less than a dozen altogether. When asked these resources were discovered, the common refrain was that they heard about them through friends, guild members, and through being immersed in MMO culture as a whole. Katie found out about *Thottbot* from her sister, while Rick found out about *WoWWiki* from fellow guild members. Adam had used *Allakhazam* for years before beginning to play *WoW*. Although my participants all had their favourites, Dan suggested that the popularity of information resources took on a temporal aspect; some databases were popular among players at one point in time but had since gone into decline:

> The original one that we used to use was *Allakhazam*. I can't even spell it any more. This was the main one...*Allakhazam* is a bunch of different stuff. They do almost all the big MMOs. I got [*Allakhazam*] from using *Star Wars Galaxies*, and then from there...It's not bad, but it's updated kind of sporadically, and it's a really slow browser. Like, this [referring to the screen] - it's slow. And then *WoWWiki* became kind of the big thing.

This comment reinforced what I had already found as a dominant theme in a couple forum discussions[3], in which contributors argued that the general quality of both *Thottbot* and *Allakhazam* had seriously decreased in terms of accuracy and speed. Judging from the experiences of these four participants, it may be that serious players like Dan and Rick tend to notice these kinds of trends, whereas more casual players might consider this

[3] One example of this theme is available at:
http://forums.worldofwarcraft.com/thread.html?topicId=106775988&sid=1&pageNo=1

phenomenon as less of a problem and be willing to stay with what they find familiar. Whereas Katie had never strayed further than *Thottbot*, both Rick and Dan, who had used most of these common resources, nevertheless favoured *WoWWiki* as one of the best available.

Similarly, cultural texts produced by the space, such as machinima videos, news articles, comics, and artwork appeared to be liberally shared and widely discussed, serving to engender a broader cultural identity formed through inside jokes and intertextual references (it is important to note that many of these texts are satirical jabs at gaming culture). Although information resources such as databases and forums were limited in number, participants found a much broader range of cultural texts to be interesting or funny, although there was a common touchstones such as the Leeroy Jenkins meme. Although Katie and Adam were the only ones to discuss Leeroy Jenkins explicitly, I would venture to guess that both Rick and Dan were aware of the clip. As Adam suggested, references to it are so ubiquitous that it is almost unavoidable:

> Like Leeroy Jenkins is so famous now that you can't - like, everyone says Leeroy Jenkins. I mean, when I first heard that, I was like, "Leeroy Jenkins? What the hell is that?" And I googled that, and the video came up and I thought, that's hilarious.

Dan and Adam, as the avid gamers in the study, seemed to be most interested in these cultural texts. Rick was interested in very little outside of strategy, and Katie had bookmarked a few screenshots and *Youtube* videos that she had found funny, but Dan and Adam had several texts that they read on a regular basis. Adam, of course, had his podcasts, which, beyond providing gameplay information, also had stories and jokes as well as recommendations for machinima and other media. He consumed almost anything related to the official back-story of the game, such as the novels and the board game, as

well as fan art that was posted on the official site. He did not, as a rule, like fan fiction, preferring to "leave that up to, like, Chris Metzen [the story director], who creates it at Blizzard", but he did follow the work of specific creators, such as a machinima artist named Spiffworld who made *WoW* music videos for musician Jonathan Coulton's work:

> I don't know if you've heard of Jonathan Coulton...he's a music artist, and he writes kind of geeky songs. There's a guy, he does machinima, he makes machinima music videos of *World of Warcraft* for his songs. Which is only really the only machinima I watch, but I like them.

Dan watched the occasional machinima film, but the cultural texts he was most interested in were game-related web-comics such as *Penny Arcade* and *PvP Online.* He had a deep connection with these texts, because he identified closely with the culture in which the comic writers grew up:

> They've got all sorts of stuff, just it's everything that relates to the gaming community, and just that associated stuff. Like all that stuff I do, they do, kind of role-playing games, and I'm pretty sure the guy who's the writer is the same age as me. He puts in things like *Dukes of Hazard.* You know, like, just crap like that, stuff that I can relate to.

Many of these comics frequently make reference to *World of Warcraft*, but Dan mentioned one new strip that was almost exclusively devoted to the game:

> This is by the guy who does *PvP Online.* I don't know if you've seen that one before. But he made up a new one, it's *Ding!* and it's basically just a comic about *World of Warcraft.* And it's only come out - like, he updates it like twice a week, and it's only been up for like maybe a month. But it's stuff, like, that you'll relate to.

Dan and Adam's experiences indicate the overall strength of the game as a cultural activity and affinity space; not only do players spend time playing the game, researching the game, and organizing for the game, but it also spills over into their general media consumption in significant and meaningful ways. The game and meta-game work together in a symbiotic relationship, in which player identification with the core generator

(the game) reinforces interest in other generators (the meta-game) and reciprocally, reinforces interest back at the core.

Conclusion

Four broad categories of information were used by participants to support their gameplay. Goal-related information was consulted at point-of-need, while strategy was collected over a long period of time and integrated into a knowledge base. Both social information and cultural information were more intangible forms of information related to interaction between players and immersion in the overall culture of the game. The significance of players' information use will be analyzed further in the next chapter.

CHAPTER 6

Analysis

As the previous two chapters exhibit, these four players each have differing motivations, preferences, and levels of involvement with the game. Information seeking and use were vital for all players in the study, but how information was sought, as well as the importance that players assigned to particular types of information, varied greatly with each participant. The findings will now be explored in terms of the original research questions and theoretical frameworks.

Enjoyment

How do these avid players use information to enhance their enjoyment of the gaming experience?

As we have seen, the four avid *World of Warcraft* players in this study made use of many kinds of information in their gameplay. They used goal-based information to solve immediate problems, as well as to accelerate their progress through the 'leveling up' portion of the game. They used strategic information to develop best practices on how to navigate the world, tackle high-level enemies, and build useful characters. They used social and cultural information to help them communicate and participate meaningfully in the social world of the game and further immerse themselves in its cultural milieu.

To understand how information actually enhances these players' enjoyment of the game is a far trickier phenomenon to isolate. First, we must explore how information supports "meaningful play" in the game (Salen & Zimmerman, 2004), and then examine how this meaningful play is expanded and transformed into a serious leisure activity.

Meaningful play in games, as discussed in Chapter 2, occurs when there is a firm relationship between an action taken by the player and feedback from that action, as communicated by the game system. The player must be able to perceive that what they are doing has an outcome.

The information that players used, both actively sought and passively observed, had a perceivable effect on their gameplay. It helped them to make sense of what was occurring in the world, by providing additional context to understand and act upon the feedback they were receiving from the game system, both at the formal level (mechanics), the experiential level (preferences), and the cultural level (interaction with other players as well as the game as cultural object). Adam listened to *WoW* podcasts because they often discussed social issues with which he had experienced problems, such as looting rules or group roles. Rick, perceiving a potential weakness in his character's abilities, read about what other players on the forums were doing and changed his talent build to match, finding that he jumped from 26th to 3rd place on the damage charts the following week

As seen in those examples, using information also allowed participants to play at the limits of their game, often extending their level of ability beyond that which was possible without the additional knowledge (an effect which was also perceivable by players). Nardi, Ly and Harris (2007) have explored how *WoW* players scaffolded each other's learning, helping them to work within the Zone of Proximal Development (Vygotsky, 1978). Information sharing and use as explored by this study extends far beyond chat conversations alone, but it performs much the same function. The direct

interaction between players as well as the mediated interaction of a chat forum all serves to scaffold learning and achievement within the space.

The design of the game itself encourages more engaged play over time, as well as more active information seeking, through prolonging the feedback loop between action and outcome. At the beginning of *World of Warcraft*, the character kills a monster and receives experience points as a reward. After killing a handful of monsters, that character receives enough experience points to move to the next level. Over the course of 70 levels and far into the endgame, the game becomes progressively more complicated, in terms of both overall difficulty and level of commitment. The latter element was definitely evident when comparing habits across participants; Rick and Dan, as the more experienced players in the study, were much more invested in the game than either Katie or Adam in terms of social commitment (if not in time commitment, as well).

As Silverman (2006) has discussed, some players' careers do begin to take on the form of serious leisure, with associated rewards of personal enrichment, accomplishment, and a sense of belonging. The early game is typified by small challenges, in which goals are almost immediately achievable and group encounters are relatively simple, yet engaging. Dan, Katie, and Adam all referred to the early pleasures they experienced, such as exploring the world, leveling up, and participating in their first dungeon run. Throughout this first half of the game, information helped smooth over those gaps, ensuring that the challenge level (and enjoyment level) remained consistent throughout (an important part of achieving a flow state). At the same time, most of the participants were equally conscientious not to seek out too much information, because they recognized that without significant challenge the game would offer no sense of

achievement, one of the main sources of pleasure (a notable exception was Rick, who actually appeared to find pleasure in circumventing the system of regular play as expediently as possible).

Through these challenges, players were slowly drawn into the world, and in turn increased their own commitment levels towards skill acquisition, character development, and guild participation, as the difficulty of the game increased. Part of this process included an increase in finding and using information to support this more complex gameplay, which became more necessary and prolonged. Early on, players might have looked for the odd piece of information on how to find a certain location, or ask another player what a particular term meant. Dan's PvP strategy, however, was the result of hundreds of hours of play, accompanied by an almost equal amount of time spent researching his characters' abilities, talents, and gear. Rick and his guild would spend weeks developing strategy for a raid encounter, first researching what other players had done (in both text and video format, no less), then refining it and writing it up for their own use. Although information use was still bound to pleasure, it definitely played a more important role in the endgame.

In the observation sessions with these two participants, I witnessed the rewards of all this work first hand. Although I am reticent to claim that they were experiencing a state of flow, it was something quite close to it. Rick in particular exhibited intense concentration throughout much of our session, largely oblivious to my presence as well as to the passing of time. He toggled between information windows when he wasn't actively in combat, while giving orders to guild members throughout. Dan's play was much more casual and joke-ridden, yet during arena battles he exuded such a total sense

of confidence in his own actions that he appeared to be in similar state of concentration (and loving it).

These quasi-flow states did not occur while observing the other two participants, although there were plenty of moments where the simple enjoyment of the activity itself shone through. Although it is important to note a couple of extraneous factors played into this effect. First, Katie and Adam did not participate in a group activity during their sessions, nor did they use voice chat. As a result, they may have felt obliged to slow down their pace enough to talk with me. Their observation sessions resembled extended interviews, albeit with slightly more distractions. Nevertheless, the concentration required for flow was non-existent, because their attention was divided. This problem was compounded by the fact that both participants, at that point in time, were in a bit of a lull in their careers. Adam had been pushing himself through the remaining levels in order to reach the endgame, while Katie was waiting for her guild to catch up to her. When I observed them, both players appeared to have relatively undefined goals about what they wanted to accomplish, a sharp contrast to the dedication of Dan and Rick.

In terms of serious leisure, it appeared as though Rick and Dan's game careers had likely reached a stage of maintenance, in which they were comfortable, actualized participants reaping the benefits of their activities. Adam and Katie, on the other hand, were just beginning to ramp up the most intensive part of their careers, still in the process of establishing themselves as full participants in the space. Yet it appeared as though both players were perhaps having problems negotiating this territory, finding it less rewarding than what came before. It would be interesting to see whether they were still playing *WoW* a year later.

Identity

How do these players use information to construct their identity as participants in the social world of the game, and how does that construction affect their gaming experience?

One common element explored by both the serious leisure perspective and situated learning theory is how participants begin to identify with their activity and its related community of practice. In both frameworks, participants move from being peripheral (casual) members of the community to full (devotee) participants, a learning process in which they are inculcated into the values, norms, discourse, and practices associated with the activity, what Stebbins refers to as its unique ethos.

Silverman (2006) has already discussed identification within the power gamer ethos as an extreme extension of a particular career trajectory dedicated solely to achievement and the development of status. But as he openly argues, it is hardly representative of the entire body of MMO players. I would argue that my participants represented aspects of serious leisure spread across various subsections of the overall affinity space generated by the game. Each participant expended significant effort to acquire the necessary skill and knowledge to play, at times persevering through less enjoyable activities in order to get to more cherished ones. Yet they also had very distinct views of what they considered to be fun in the game, which played heavily into how their identities as *World of Warcraft* players developed. The most extreme difference was between Katie and Rick; although there were some undoubtedly some shared practices and values between the two, it was clear that Katie and Rick each enjoyed completely different aspects of the game. Katie indicated that the extreme

practices in which Rick regularly engaged were the antithesis of what she perceived to be important to her gameplay.

To what extent the information that they encountered influenced their identification with the game turned out to be an extremely broad question, and one that is difficult to explore properly without a more extended period of data collection. For the most part, participants searched for, evaluated, and found use in information relative to their own preferences and motivations. As a result, any preexisting predilections tended to be further reinforced. This trend was most evident with Katie, who as a non-gamer in a guild of casual gamers often identified herself in opposition to any dominant cultural influences. Of the four participants, she was the most likely to rely solely on experiential learning within the world itself. While she picked up on the cultural discourse and values expressed by other players she encountered, she was less likely to seek out information that contradicted her own sense of identification with the game. Although there was the odd meta-game text that she found interesting, it was largely because it presented a satirical view with which she implicitly agreed.

Meanwhile, Dan and Adam, as long-time gamers, wholly identified with most aspects of gaming culture, and to that end, they both actively immersed themselves in information related to *WoW* culture: Web-comics, novels, machinima, art, random clips and jokes that they found while trolling the forums and other online resources. I argue that Adam, who was the least socially involved with a peer group in the game, found a greater sense of belonging in the cultural texts generated by the affinity space of the game than he did from identification with other players.

Rick's identity as a player was the most pragmatically determined, being almost entirely bound up in achievement factors. The role of information in identity formation was limited to the extent that it allowed Rick to further identify himself as an expert of the game. Very little about the overall space of the game held interest for Rick unless it could be leveraged to improve his technique, communication skills, or effectiveness in a group situation.

Individual identity was also influenced through their relationships with other players, most notably friends and guild members. Although it could be argued that some guilds could be conceptualized as communities of practice (in that newcomers are enculturated into customs and practices through interaction with the old-timers, often taking over the role of leadership from them), for the most part relationships within the game were much more amorphous, encompassing a range of constantly mutating social identities. Dan and Adam, for example, both belonged to large guilds that offered a varied range of activities, and although each player had subsets of real-life friends or game acquaintances mixed in with their guild, neither Dan nor Adam were particularly close with the majority of their members. Membership in the guild existed in name only.

The most cohesive social groupings were those exhibited by Rick and Katie's guilds. Both groups were small in number and fairly unified in vision, yet even still they varied greatly according to level of participation and variations in goals. Katie considered herself and her guild to be outsiders to the stereotypically dominant culture of the game, yet she was more involved in her gameplay than most other members of her guild, and one of the only members to participate in PvP events (albeit partially because of lack of options). Rick's guild had a shared ethos in which it was understood that real

life took precedence over the game, but varying levels of participation among members still made raiding more casual than Rick would have liked.

It is perhaps more accurate to describe the game and its associated culture as an affinity space (Gee 2007) than as a community. Participants share a common space, discourse, values, and practices, but at the same time they are able pursue their own interests, and learn what they need to know, and how they learn it, on their own terms. The game design itself encourages players to acquire intensive and extensive knowledge, by requiring them to specialize in one character class while still maintaining a general awareness of the other eight character classes for group play. Meanwhile, the game company's liberal copyright policy has allowed plenty of content generators (the meta-game) to bolster increased participation in the space. In looking at the game as an affinity space, participants undoubtedly identified themselves as *World of Warcraft* players, but commonalities beyond that were problematic to assess.

Evaluation

What do players see as the most valuable information resources for the game, and what criteria do they use to evaluate the quality of information they receive?

From a Sense-Making perspective, what participants considered as the most relevant and valuable information resources was again highly dependent on where their own interests lay in the game. Rick cared most about making as powerful a character as he could, so the resources and tools that he found most useful were those that allowed him to find the best gear or to calculate damage percentages more effectively. Katie, however, when deciding on her character's talent builds, found little of such material to be useful, because it did not speak to what she wanted her character to be. Adam liked

the back-story of the game, but only the official part: although he spent a lot of time on the *World of Warcraft* website reading up on "the lore", he didn't care much about fan fiction set in the same world; in this case, evaluation was a matter of pure taste.

Other players (be it friends, guild, members) were generally considered to be one of the most valuable information resources, at least during gameplay. In these situations, information was often informally passed on through stories, in conversation, and through participation in the space. These methods have been identified as existing in both communities of practice (Lave & Wenger 1991) and information grounds (Pettigrew 1999). In terms of meta-game resources, all participants made use of the official *World of Warcraft* website (especially the Armory tool and the forums), and at least one external database or fansite. Based on participant interviews, it appeared as though Katie used the smallest number of external resources on a regular basis, while Rick consistently used the most. Of course, exact usage is difficult to determine because it fluctuates over time, according to players' level of interest and current goals in the game. Dan and Adam, for example, tended to find a broader range of information using only a couple of select websites, whereas Rick seemed to look for very targeted information across several resources.

In evaluating the pure "objective" accuracy of factual information, participants recognized the inherent problem with resources that relied almost entirely on player submissions, but nobody felt it to be that great an issue. Katie commented, for example, that the inaccuracies on one database were usually caught fairly quickly:

> I also usually find that the ones are there are so like jumped on by other people, that it's like, "Well, you guys seem to have this covered." So, yeah, I don't know...I don't worry about it too much. Like, if it's not what it says, like, if it's

> not where it says it's supposed to be, then I just figure that, you know, someone was off or something.

Although player-submitted information may be faulty, she argued that the critical mass of *WoW* players who post responses on this site ensured that any potential mistakes were quickly vetted, leaving a resource that was, on whole, updated more regularly and more comprehensive than authorized strategy guides or player manuals. Adam said that most of the errors that he found were related to software updates to the game; older information became invalid as content was introduced (or occasionally removed), but players could generally supply new information about those changes much faster than authorized sources could.

Katie added, however, that, "if people are intelligent enough just to dig through what's out there, then you may as well just leave it." Although user-edited resources can appear to successfully leverage the collective knowledge of a community to create a broad base of comprehensive and up-to-date content, the shortcoming of these resources is that the user must then expend effort evaluating that content to ensure it is correct. Generally speaking, all participants possessed enough knowledge of their subject domain to not only be able to decipher the information they encountered, but also critically assess whether it suited their purposes. A crucial aspect of this assessment was being able to test out the information they found to determine whether it was effective for their purposes. Adam researched the agro mechanic of the game because he was unsure of its effect on his gameplay, but once he had the conceptual understanding of how it worked, he tested out this understanding using his Voidwalker. Rick's guild, meanwhile, would spend several nights testing and refining the strategies that he had collected. In these cases, they could perceive the effects of the information and determine whether it was

'accurate', something which generally does not happen in most studies of information seeking.

Gee (2003) has argued that video games are surprisingly effective as learning tools because players have the opportunity to test what they are learning, by using a reiterative process in which they probe, hypothesize, reprobe and rethink the problem they are facing. Information served as a starting point for this process, providing boundaries around the situation and allowing players to experiment and eventually form their own hypotheses. As we see with Dan and Katie, there were some situations in which players actively refused to seek out information to solve a problem they felt was within their grasp, instead choosing to rely exclusively on this probing process, or, in some cases, on a limited amount of information. Players used (or did not use) information in order to maintain a certain level of difficulty in the challenges they were facing, as well as speed up less interesting parts of the game, so an important criterion for some players was that it provide the right amount of detail without giving away too much of the challenge.

In this way, game-related information behaviour differs considerably from other contexts because it is bounded to players' enjoyment of a fictional world. The information that they use in actuality has very little consequence beyond the extent to which it helps them find a more meaningful pleasure in the activity than they would otherwise. This aspect was most evident when examining the meta-game as a fictional and cultural artifact. Dan, for example, liked reading web comics not only for the humour, but also because they offered a deeper level of identification with the game culture. Although knowledge of *WoW*'s narrative was not a pre-requisite for gameplay,

Adam nevertheless found it fulfilling to read about the enemies he was fighting and the places he was visiting in-game. Qualifying the value of these kinds of information is outside the realm of typical information behaviour studies, but it is extremely important for understanding how users interact with the game as an affinity space and evaluate the information they find within it.

As Dervin (1999) argues, the concept of information itself is a construct, describing a reified form of human sense-making which itself is limited by its production in a particular moment in time and space. I believe that my participants, as experts of their domain, intuitively recognized that much of the information offered up by players was subject to this reification process, being either heavily infused with opinion or contextually bound to an earlier point of time in the history of the game. As Adam suggests, most of the inaccuracies he found were technically correct when they were posted, but later software updates changed the part of the game being described. Dan argued, however, that there was a more objective truth that needed to be drawn out from multiple sources:

> Well, just like when you're researching anything, I mean, obviously a lot of these are just people's opinions, and it varies greatly from person to person. But if you check up enough stuff, there's going to be various things that keep on popping up that will be consistent, and it's just kind of evaluating, like, identifying these things that are consistent. Those are probably the truth compared to just opinion.

Rick described a similar process, updating his talent specialization according to what he perceived as the dominant trend among players at his level.

Although Adam may have believed that playing one's character properly was highly subjective, Rick and Dan's opinions served to dispute that notion. From their perspective, gameplay could, in some circumstances, be treated as almost entirely

empirical, especially if the game was reduced to its essence as an algorithmic system based on probabilities. For Rick especially, damage charts and talent calculators were essential tools for measuring firsthand how effective his character was, because they gave him access to the raw data that he could then interpret according to his own goals. Even Dan, who was much less involved at this level, understood the importance of this perspective on gameplay, although he indicated that he wasn't as fanatical about it as some:

> Obviously, the more hardcore you are about it, you do have to do some math to figure out how, what's going to be the best, 'cause you can't just throw down any kind of armor and be really effective.

These two players, in other words, were considerably more aware of the importance of evaluating information in terms of empirical evidence as opposed to sheer preference.

I would argue that participation in the endgame itself helps engender this form of evaluation in players to a significant extent. As opposed to the relatively freeform play that players experience throughout the leveling process, *WoW*'s endgame is specifically designed to be a highly challenging space, in which the difference of a few damage points can mean the difference between the success or failure of a twenty-five person endeavour. Not surprisingly, competition also thrives in the endgame, between both players (PvP) and guilds (competitive raiding). Although casual players could participate in these activities and experience a certain level of success, only the more devoted achievement-driven individuals reach a substantial level of success in them, largely because of the time commitment and level of difficulty involved. It may be that the mechanics are so precise in some of these encounters that there truly is only a limited number of "correct" ways to play through them. If so, issues of empirical accuracy are

more important to gameplay than most casual players understand. Given the commitment and engagement of competitive players, it also would not be surprising if the majority of meta-game strategy available to players were slanted towards pure achievement factors (as Katie suggested).

Apprenticeship

To what extent is players' information behaviour influenced by the modeling or apprenticeship of those behaviours of other players?

Social networking was a fundamental part of information behaviour for these four participants. Although there was little evidence of active modeling or apprenticeship as instructional practices, it was clear that participants' information needs, seeking, and use were almost always influenced by or mediated through their interaction with other players, both directly (through conversation or active asking of questions) or indirectly (through in-game observation, consulting player-submitted websites and databases, or comparing character statistics).

Participants often experienced information needs as a result of interaction (or expected interaction) with other players, at varying degrees of intensity. Most often, these needs were associated with a desire to be respected as a competent and valuable participant in the affinity space of the game. Adam wanted to have a basic understanding of a dungeon before he played through it with a group of players because he did not want to appear inexperienced, or, even worse, incompetent. Katie felt compelled to build a well-rounded character so other players would want to group up with her. Rick, in researching strategy, was actually acting on behalf of his guild's need for information as

well as his own. Dan observed other players' maneuvers in PvP action and realized he needed to know how to counteract those maneuvers.

In terms of actual information seeking and acquisition, participants engaged in a range of typical practices commonly identified in information studies (cf. Wilson, 1999; Mackenzie 2002, 2003), such as active searching, scanning, browsing, or monitoring. One significant difference was that the majority of information resources and texts described by these participants were discovered almost exclusively through recommendations from other players. Keeping true with Gee's conception of an affinity space, there were no formalized gatekeepers in the space (except perhaps the game company); rather, there were multiple paths to information through multiple sets of peers. Although it would be hard to say that everyone's knowledge was equally respected in this space (because participants regularly expressed varying levels of contempt towards the general populace of players), participants nevertheless had a core group of respected players on whom they relied.

Given the common rhetoric about game players being producers of content as well as consumers of it (Pearce 2006; Gee 2007), it was surprising to find that none of the participants produced or posted content to a website or forum on a regular basis. Rick undoubtedly produced content (raid strategies), but shared it only with his guild. Dan would both occasionally post something to his guild's private forums, but almost never to public sites. Adam would occasionally do the former, but had never done the latter, while Katie had yet to post any content anywhere. Rick obviously had his reasons for withholding information; Katie, Dan, and Adam, on the other hand, had no firm reason

beyond a general sense that there was so much information out there already that they had little of use to offer to the community at large. Dan described this problem best:

> Most of the stuff has been covered over so much, that mine would just be another opinion in the sea of opinions. I don't think I've ever come with an epiphany of sorts.

He contributed to his guild forums because he felt his opinion had "more weight" there; in other words, he could perceive that what he offered had an effect. What came across was that the participants all tended to share and share alike with their network of peers, but made little active effort to help out the world at large beyond an occasional chat message.

Transferable Knowledge and Skills

How do these players perceive their research and knowledge? Do they feel they are experts of the game? Do they feel that what they have learned is transferable?

Participants felt as though they knew the game well, but were reluctant to call themselves experts, responding instead by comparing their knowledge with that of other players. Rick was the one exception; having run the majority of quests and a good deal of endgame raids, he felt slightly more comfortable acknowledging himself as an expert. Similarly, participants felt that they had gained something, but they were not entirely sure how it would apply outside of the context of the game. In Katie's case, she felt she had learned how to manipulate the game, but felt that had little use otherwise:

> I'm not sure how applicable the game is to, you know, anything I'm doing or supposed to be doing. But, like, I've definitely learned how the game works, and the fastest way to move from this point to that point.

The other participants suggested that the game had definite social benefits. Dan said that even though he played just for relaxation, he was very happy to have made some very

close friends at the same time. As a very shy individual, Adam admitted outright that he thought *WoW* had made him a more sociable person, because the game forced players to interact with other people.

It was somewhat gratifying to find that Rick, as the most involved player, felt he had actually learned a great deal as well:

> As a guild leader there has been a definite people management skill set that transfers into other parts of my life. As a raid leader it is very important to communicate well to twenty-four other people. I suspect this skill set has also transfer into my real life, although it's tough to measure.

Both Beck and Wade (2004) and Brown and Thomas (2006) have discussed how video games (and in the latter article, *World of Warcraft* specifically) are providing players with problem-solving and management skills they need to excel in corporate environments. As Brown and Thomas argue, "the process of becoming an effective World of Warcraft guild master amounts to a total-immersion course in leadership" (2006, n.p.). It was clear that Rick felt somewhat the same, although he could not fully rationalize exactly how it would make a difference in his professional life.

In terms of information seeking and research habits, only Dan and Rick gave any indication that their gameplay had played a role in how they approached other topics. Dan suggested that *WoW* had made him a better researcher when playing other video games, because it had given him an increased understanding of how these games functioned from a design perspective:

> I'm good at researching stuff now...like I don't take games as much for granted as I did before, like I know there's a lot of math behind it. You don't just push a button and stuff happens. Everything's based off of mathematical formulas. Like, I understand that a bit better about games, so, like, I'll do more research and stuff like that.

Rick, on the other hand, perceived his game research as both informing and being informed by his real-life work:

> I think information-seeking goes both directions. My success as a raid leader stems from having good information-seeking strategies as a computer programmer. I use the same techniques to solve problems we encounter on a raid boss that I would use to identify and solve a programming bug.

From a researcher's perspective, I argue that all the participants, first of all, knew far more about the game than I had ever learned on my own, and their expertise consistently challenged my own assumptions about how to play *World of Warcraft.* Furthermore, from the point of view of situated learning theory, they had learned a great deal about how to act as self-actualized, sociable, contributing members of a social grouping (be it community of practice or affinity space), able to both read and create meaning within the semiotic domain associated with the space. Consequently, they developed into proficient users of information as well, because they were able to make value judgments about what was considered to be "good" information for their purposes,

Conclusion

This chapter returned to the original research questions of the study, examining more carefully how participants' information behaviour impacted their enjoyment of the game and facilitated deeper identification and interaction with the larger culture of the game. It also looked at how participants' evaluation processes and to what extent their game-related information behaviour might transfer over to other activities. The implications of these findings will be discussed in the final chapter.

CHAPTER 7

Conclusion

The goal of this research was to present four in-depth case studies exploring the information behaviour of avid *World of Warcraft* players. Unlike many MMO studies that use in-game ethnography to analyze players' behaviour (e.g. Silverman 2006; Steinkuehler 2005; Taylor 2003, 2006), I chose face-to-face interviews and participant observation to collect data, using tenets of Sense-Making methodology to capture individual accounts of how these participants found, used, and shared information to enhance their enjoyment of the game and interact with the game community at large.

Building on work from the Serious Leisure Perspective (Hartel 2003, 2006; Silverman 2006; Stebbins 2007), my findings indicate that MMO gameplay can begin to take on aspects of a serious leisure career, in which a participant spends significant effort developing skills and knowledge in return for tangible rewards such as a sense of accomplishment and personal enrichment. However, the depth of involvement in their 'careers' varied greatly among the participants; although all four could be described as avid players, it was clear that Rick and Dan were considerably more active as players and as information seekers. Having begun playing before Katie or Adam, they had more opportunity to develop extensive knowledge as well as a broader social network, both of which played a part in reinforcing their continued participation in the space.

However, the game (and its surrounding meta-game) functioned as a potent affinity space (Gee 2007), allowing participants to find their own niche within it regardless of their individual motivations or skill level. Players used game information as a route towards participation in the space, with meta-game resources acting as extra

content generators that support and reinforce the core activity of gameplay, and evaluation of the information they received hinged almost entirely on how it would deepen their enjoyment of the activity. From a technical perspective, game information helped maintain the smooth flow of gameplay and nurture a sense of competency in players. As a cultural construct, it helped facilitate identification with the cultural milieu of the space, while also evoking varying kinds of narrative and meta-narrative pleasure. Dan, who arguably had the broadest interests of the four participants, found satisfaction in many forms: in demonstrating his expertise through mastery over other players, in reading Web comics that satirized the affinity space and its participants, and in retelling the exploits of infamous guilds on his game server.

The importance of the 'multiplayer' aspect of gameplay on information behaviour cannot be overstated. There was very little activity in the game space that was not influenced by social interaction with other players, and information use was no exception. Contacting friends, guild members and other players was often the first step in resolving a knowledge gap. When that method did not suffice, consulting Web forums and other player-written resources was next in line (resources that, of course, were often recommended by other players). Occasionally, the need for information emerged as a direct result of interaction with players, especially in cases when individuals perceived discrepancies between themselves and others.

However, information behaviour in MMOs, like that of many other activities, involved casual scanning and browsing as well as targeted seeking at point-of-need, although not for all participants. Rick, Dan, and Adam's participation in the affinity space extended into regular, habitual visits to their favourite resources, during which they

kept track of current discussions, trends, and popular texts among players. Katie, while definitely an avid player, did not identify with the broader culture as much, and as a result tended to consult these external resources only if she had an immediate problem. Much of her knowledge came from first-hand experience or observation in the game itself.

Overall, participants were much more active consumers of meta-game information than they were producers of it. Although Rick and Dan posted information to their guild websites, nobody claimed to have contributed content to publicly available resources. The general feeling among all participants was that they had nothing to significant to add, because most game topics were already adequately covered. Rick was a notable exception, in that he intentionally wanted to withhold his information from the general populace in order to increase the competitiveness of his guild.

Implications of the Findings

This study contributes to the growing body of literature on virtual worlds and game studies by providing additional perspectives on player motivations and the development and distribution of knowledge in this specialized context. Thus far, little research has explicitly dealt with the concepts of information or information behaviour as it pertains to video games or virtual worlds. Avid players are influenced by particular experiences, behaviours, and habits in MMO gameplay, which may (or may not) have an effect on information behaviour in other contexts such as academic or work environments. This study provides a clearer understanding of how some people actually use information in MMOs, but the transferability of overall habits to other contexts is difficult to ascertain and remains to be explored further.

One possible implication for broader information behaviour could be that these participants come to respect and rely upon the opinions of their peers much more than other credible sources of information. They are, after all, enculturated into a fairly intensive affinity space in which a majority of the information they use is produced and mediated by the community rather than being published by an authorized source. The overall ethos of the space resembles that of many contemporary Web communities, valuing collaborative content generation by end-users over traditional top-down models of media consumption. However, even if players are predisposed towards this ethos, they are probably also more likely, through their experience working with user-submitted content, to recognize the need for critical thinking when using it. Although my participants realized that they had the expertise to evaluate the quality of information in the semiotic domain of *WoW* gameplay, none of them felt as though this expertise was overtly transferable to other knowledge domains beyond broad problem-solving skills.

Another integral aspect of information behaviour in gameplay is the presence of an extremely effective social support network. Because *World of Warcraft* is so popular, there is always a sizable number of people playing at any time of the day, meaning that players can easily ask questions of knowledgeable friends or available strangers whenever they encounter problems. This constant level of support is atypical of that available in many research activities; although information seekers can ask for help from friends, colleagues, acquaintances, or even intermediaries such as librarians or instructors, seldom are these individuals as readily available as other players are, nor are there as many ample opportunities to observe the acquired knowledge being put to use in practice (especially in academic settings). Similarly, the proliferation of meta-game

content on the Web means that players never have to dig very deep to find relevant information, although they do have to spend a significant amount of time sorting out the usable advice from the drivel. The entire body of game-related data available to players likely rivals the output of many academic disciplines in terms of pure quantity, but obviously not quality. It may be that experienced game players end up being more demanding but less discerning information users in general, willing to sacrifice quality in enchange for immediate accessibility (although I believe this expectation is hardly confined to a gaming population).

The implications I have discussed thus far are not restricted to the context of gaming alone. Blogs, wikis, and other social networking sites have all challenged mainstream media production, while at the same time being criticized for lacking the purported quality of more established resources. MMO gaming is yet another example of an active online social networking space whose base of users expect accessible information first and foremost. Yet the fact that the game is a deliberately designed fictional space (as opposed to the much less coherent knowledge domains encountered in real-life) raises questions about how these game-related behaviours actually compare to those exhibited in other contexts. In other words, do players truly approach their academic or professional work, or even their other leisure activities, in the same way as they would their game? Although Dan and Rick felt that their information-seeking habits were consistent across contexts, Katie and Adam seemed much more unsure much about this outcome.

One very notable behaviour that appeared distinct from other contexts was that participants occasionally chose to deliberately limit the amount of information they

acquired. Both Dan and Katie, for example, would try to make it through quests with as little assistance as possible, only resorting to seeking outside answers when they were absolutely confounded. They knew that having access to too much of this information would ruin some of the challenge in the game. Adam also exhibited this trait to a lesser degree, relying more on strategy guides largely to maintain pace with more experienced players. Rick was the one exception to this bounded form of information behaviour; for him, it seemed as though gathering as much information as possible was actually what made the game fun.

Although information users have been shown to deliberately limit information flow as a means of preventing anxiety or overload (Case 2007), the form of bounded information seeking displayed by participants in the present study was specialized in that it centered on deepening the enjoyment of the activity rather than preventing cognitive distress. No matter how much an MMO may foster freedom of movement and open-ended play, it is still a game, a structured experience with largely predetermined outcomes (although no less salient for the player going through them for the first time). Uncertainty, anticipation, and chaos were all sources of pleasure rather than of anxiety in gameplay, because the game is engineered to produce these sensations in such a way. Although MMOs information behaviour is "real" in the sense that players demonstrate tangible practices and preferences in finding and selecting information and constructing knowledge from it, effectively judging how these habits transfer over to other contexts is extremely difficult because of the nature of the activity. Comparisons between the virtual and the real remain problematic.

These divides between the real and virtual all indicate possibilities for future research. This study involved an extremely small sample of players, giving impressions of broad behavioural habits. I have not gone into the specific details of players' search tactics, nor observed how their gaming truly affects other facets of their life beyond what they told me. Nevertheless, these four distinct accounts of gameplay offer a starting point for further ethnographic work exploring the information behaviour in MMO games and other contemporary affinity spaces. Although these may still be games, academics and educators cannot ignore the cultural impact of these increasingly popular social worlds on life in the 21st Century.

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APPENDIX A: About World of Warcraft

Although I offer a brief history of MMOs in chapter 2, it is necessary to give a fuller description of the gameplay of the specific MMO discussed in this study, for the benefit of those readers who are unfamiliar with it. *World of Warcraft* (or *WoW*, as players commonly refer to it) can be considered a fairly typical MMO, albeit an extremely popular one. It follows in a long line of well-known fantasy MMOs such as *Ultima Online*, *Everquest*, and *Lineage,* and although it has arguably streamlined problematic design features of the older games, it is still representative of the genre (Duchenault *et al.* 2006b). It was specifically chosen for this study because of its large player base and rich community involvement in the production of third-party texts, and because of my familiarity with it.

WoW was released in November 2004 by Blizzard Entertainment, with one expansion, *The Burning Crusade*, added in January 2007 (another expansion is planned for release in the latter half of 2008). Currently, the game boasts over 10 million active players (Woodcock 2008). Every player must buy and install the software client and sign up for an account on the *WoW* website (with a subscription fee of approximately $15 U.S. per month). From there, they log into the game over the Internet and create a character profile and avatar on one of the game servers (known in *WoW* as "realms"). Because it is technologically impossible to have all players together in one world, there are a couple hundred separate servers for players to choose from (each with several thousand players), all with the same world and content mirrored on them. Game servers are further differentiated by the kind of gameplay they offer. Player vs. Environment (PvE) realms, for example, focus on regular gameplay like completing quests and overcoming

monsters, while Player vs. Player (PvP) realms allow the additional option of being able to kill other players in most areas of the world. In the Role Playing realms (both PvE and PvP varieties), players are required to speak in character and role-play at all times.

As with many other fantasy games, players choose one of several races (e.g. dwarf, gnome, human, orc, troll), a character class (e.g. Warrior, Priest, Mage), and then customize their avatars' appearances. Each character is aligned with one of the two major warring factions in the game, Alliance or Horde, based on its race. After character creation, the player's avatar then ventures out into the world of Azeroth, a lavishly illustrated 3-D environment with dozens of cities, towns, and regions spanning several continents. The avatar accepts and completes quests and kills "mobs" (short for mobile objects, which are game-controlled characters) for experience points (XP), treasure, and money. When characters gain XP, they advance in levels (up to a maximum level of 70), gaining additional talents and skills along the way. The early part of the game is driven by small quests that allow players to advance in level quickly, but as characters progress in the world, gameplay becomes much less structured and players are able to choose where they go, what they do, and what professions and talents their avatars specialize in.

One of the most exceptional parts of MMOs like *World of Warcraft* is the rich social world that emerges in-game, especially at higher levels. With several thousand players playing at a single time, this fictional world is often as heavily populated as a real town or city. Social interaction is an important aspect of the game, as players make friends, form groups, share loot, barter and trade, duel, and occasionally kill each other (although death is never a permanent state). As quests get increasingly difficult, it is

beneficial and often necessary to group with other players in order to increase chances of survival and progress faster.

As Duchenaut *et al.* (2006a, 2006b) observe, the need to group together is a carefully built-in design feature of most MMOs. In *WoW*, the abilities of one character class are carefully orchestrated to complement other classes. No one character is able to become an expert in all skills, so cooperation is necessary. A character with the blacksmithing ability requires miners to gather ore from the ground, as well as an enchanter to enchant the swords and axes created in order to increase their value. Similarly, in combat, the warrior class is able to take a lot of damage from enemies (thus fulfilling the role of "tank"), but this class is complemented by the mage class, who, with a warrior to protect them, can stand back and dish out a large amount of "damage per second" (DPS). Meanwhile, the priest class assists both these players by healing them when they get hurt.

Whereas the early part of the game is typified by leveling up one's character to the maximum level through completion of quests and conquering dungeons with small parties, the "endgame" is almost entirely comprised of PvP challenges and "raids" (which are large group quests that take many hours to complete and require between 10-40 players to complete). At this point, gameplay changes significantly, because players are forced to group together in order to tackle these more complicated types of game content. In the endgame, skillful and knowledgeable players are highly respected and sought after, because one bad mistake by a single person has the potential to undermine hours of effort put in by all forty players in the group. Although *WoW* differs from many MMOs in

requiring less teamwork in the early part of the game, grouping with other players is a crucial aspect of play in the latter half (Duchenault *et al.* 2006a).

The ability to finding other competent players to play with is also built into the game design through formal grouping mechanisms. The two kinds of social organization in *WoW*, as defined by the game system itself, are the party and the guild. Parties are made up of five players who join together for a short time to complete shared quests. Guilds, in contrast, are formalized, long-term player associations, ranging in size from a handful of characters up to several hundred. They are much more structured, with leaders, officers, and shared resource systems. However, the player culture makes further social distinctions between these two grouping types. Parties, for example, can be made up of guild members, complete strangers, or some combination in between. As often as not, groups formed spontaneously when two players find themselves in the same area or when one player solicits help from others in the area. This kind of grouping is referred to as a Pick-Up Group (PUG), often disdainfully because many people have found past experiences grouping with unknown players to be frustrating or problematic. Guilds, meanwhile, are differentiated by the motivations of their members. Social and family guilds are comprised of casual players, sometimes close friends or family members in real life who are mostly interested in socializing and having fun. Raiding and PvP guilds, on the other hand, are more concerned with progression, skill acquisition, and competition. Their goals are instrumental, focusing on completing high-level game content or winning battlegrounds and arena challenges with other players, which requires a significant amount of commitment and skill from their members.

The majority of in-game communication happens through typing in a chat window in the bottom-left corner of the screen, which itself has several different communication channels defined by purpose (Channel 1 is used for general discussion, Channel 2 for trading, /g for guild chat, /w for whisper (private conversation), etc.). A vast amount of social information sharing happens in the chat window. If a player is having problems with a quest, he or she can ask for assistance on the general chat channel, and other players volunteer information to help them. In the cities where players congregate, the trade channel is jammed with messages related to selling or trading items (with channel spammers often proving quite annoying). In social guilds and between friends, the chat window is used as much for real-life socializing as it is for game information. Many of the social conventions that exist in other synchronous communication media like chat rooms and instant messaging are directly transferable to *WoW*'s chat window. Raiding and PvP guilds, however, often use voice chat as the main mode of method of communication, because it is quicker and more efficient than typing. Although *WoW* developers recently updated the game with an in-game voice chat client, many serious players have been using third party software such as *Teamspeak* and *Ventrilo* since the game's inception and prefer them to the in-game client for a variety of reasons.

APPENDIX B: Consent Letter for Participants

Dear _____,

I am a student in a combined graduate degree program in Library and Information Studies and Humanities Computing at the University of Alberta. For my thesis work, I am studying the information behaviour of avid players of Massively Multiplayer Online Games.

I would like to ask you to participate in an interview and a gaming session. The interview will be 1.5 hours long, during which I will ask you about your past history as an online gamer, and get you to identify and explain common game information sources that you find valuable. The gaming session will be 1.5 hours long, during which I will observe your gameplay, and ask you to talk about what you are doing as you are playing. During the sessions, you will be audio-recorded and your computer screen (but not your person) will be video-recorded. These recordings will only be used by my supervisor and research assistants (all of whom will have signed confidentiality agreements), and the data will remain carefully locked up at all times. I will make a written transcript of our conversations for research purposes, but all my records will be labeled with a pseudonym rather than your real name. You are free to withdraw from this project at any time without penalty, and after the withdrawal date you will have 90 days to choose whether to have your data destroyed. You may also refuse to answer any question which you are not comfortable answering without having to withdraw from the project.

I will keep the recordings, transcripts and notes securely locked up for a minimum of five years, and upon completion of the project these materials will be destroyed. The information gained from this session will be used in my thesis, and possibly published or presented at a conference at a later date, but you will remain anonymous. Your real name will never be revealed at any point.

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension and Augustana Research Ethics Board (EEA REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEA REB at (780) 492-3751.

If you are willing to participate, please sign this consent form below and return it to me. If you have any questions about this request, please contact me at (780) 908-0742, or call Dr. Margaret Mackey at 492-2605. If you have any further concerns, you may contact Dr. Anna Altmann, Director of the School of Library and Information Studies, at (780) 492-4578, or Dr. Sean Gouglas, Director of the Humanities Computing program, at (780) 492-3021.

Yours sincerely,

Dale Storie

I, _____ (please print name), have read this information letter and had all my questions answered to my satisfaction. I agree to participate in the study described above and agree that the information I supply may be used on the above terms.

Signature _____ Date: _____

APPENDIX C: Sample Interview Questions

- How long have you been playing World of Warcraft?
- How did you find out about the game?
- Have you played other Massively Multiplayer Online Games?
- Tell me about your early experiences playing the game.
- How did you acquaint yourself with the gameplay, the mechanics, and the game-world?
- What did you find confusing or difficult about learning the game?
- Was there any source of information you found particularly helpful while learning the game?
- Tell me about what you are doing right now in the game.
- What have you learned during your time playing?
- Do you consider yourself an expert at the game?
- How do you evaluate the information you find?
- Show me two information resources you find the most useful right now. How did you find out about them? What makes them valuable?