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NOT JUST A GAME: HOW ON-LINE GAMING COMMUNITIES ARE SHAPING SOCIAL CAPITAL

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Introduction

Throughout the course of civilization technology has played a major role in shaping the nature of human interaction and communication (Diamond, 1997). Technology and its effects on the way we communicate has been a catalyst that has led to a sequence of inventions and adaptations which have enabled humanity to expand its potential. Humanity first created symbols to represent thoughts and objects. Thousands of years later radio waves representing specific tones were harnessed and Morse Code was developed. The internet is our most modern communication creation. Understanding the way in which technology helps us re-define and enhance communication has been a constant, ongoing endeavor. Technology has consistently shaped how we communicate and widened the choice of those with whom we communicate.

Through technology and the ability for remote synchronous and asynchronous communication—the telephone and the internet—people can now have real-time interaction without being in the same physical location. This has changed and led to the creation of new mechanisms by which we decipher and evaluate inter-personal communication. In an internet environment people can represent or misrepresent themselves as they choose, e.g. the internet is racially and gender blind. Within the on-line gaming community men play female characters and vice versa. People can experiment and project the persona of a personality they would like to be. Non verbal visual cues of gesture and body type are unavailable. Communication occurs primarily through in game chat, character actions, and in select instances voice communication software.

Evolution

Just as languages, alphabets, and fonts developed from the first written symbols, so too the internet and internet-based communication evolved. Originally developed as a minor tool for major universities and the United States military, the internet has evolved into an immense entity (Internet Society, 2003). Humanity finds itself in a reality where what was previously unimaginable is now mundane. Today the internet serves as a means to make phone calls, research information and store everything from great works of art to tallies and bills. In April of 2006, researchers at the Pew Internet & American Life Project found that 73% of all American adults currently use the internet. Of those, 42% use a broadband service (Madden, 2006). These statistics confirm what the casual observer already knows; the internet is a core component of the American lifestyle. American society is rushing to keep up with advancing trends in technology and global connections. Less than a decade ago, a 56k modem connection to the internet was more than sufficient. In today's environment it is only viable for the most rudimentary of uses.

The internet is a core means for both private and commercial transactions, as well as a storehouse for intellectual property; it has become a nexus that allows for the attainment, creation, or facilitation of nearly anything an individual desires. As the internet evolves, so does the digital capital it has created. Even more incredible, the internet has allowed for the creation of digital property. Digital real estate now has real world value[1], online dating sites facilitate relationships without a real-world connection, transactions occur for services and objects that are created, maintained, and serviced in a completely digital environment with no tangible counterpart. In the modern business

[1] Digital real estate, specifically its presence and value as part of the game SecondLife will be discussed later in the paper.

world the written letter has taken a secondary seat to e-mail. The conference room has transcended a square room in a brick and mortar location, and in its place an internationally accessible digital hub has been adopted.

The internet has also led to a transformation of pastime activities. It has led to the creation of entirely new environments for play. Online gaming is a growth industry. People play everything from single-player solitaire, online poker, to multi-player competitive games. Internet communities have formed in this digital arena and changed the way people interact. The focus of this paper is to explore the dynamics, composition, and evolution of massive multi-player online gaming communities while striving to develop a better understanding of the role they have come to play in modern society.

The internet has created the opportunity for the development of much more complex and geographically diverse communities. As these communities evolve there is a constant demand for new technology and opportunities to explore where these advancements are occurring. The leaders in the development of these technologies are not just major Fortune 500 corporations, or top researchers and developers at major universities. They are gamers and developers who are drawn to the world of online gaming and the massive multi-national communities that they have developed.

Massively Multi-Player Online Games

As a point of beginning, it is important to understand both the significance and the nature of online gaming; specifically the nature of Massive Multi-player Online Games (MMOGs). A MMOG is an online game which exists and operates completely in an internet-based setting. Due to this, the modern MMOG is constantly evolving as advances in technology allow increased graphical and audio content and capabilities.

While early text-based games that shared some of the core components of MMOGs were in existence as early as the late 70s it was not until 1996 with 3DO's release of *Meridian 59* that the first modern MMOG was released. Unlike other genres of multi-player games which take advantage of the internet or local area networks (LANs), MMOGs are games exclusively created and designed to operate in fully online environments. The games are designed and built around persistent digital worlds populated by anywhere from hundreds, to hundreds of thousands of users. As a result of the persistent and shared nature of these worlds, users log in and log out of the world at will while the world itself, and the other users logged into it, continue to evolve and advance.

To understand the significance of MMOGs, it is necessary to distinguish between single- player, multi-player, and massively multi-player games. A single-player game operates on an individual's personal computer and typically is a game designed around a quest or sequence of events. Those events can be anything from an epic quest to save a princess, a dogfight in the skies over Europe, or a real-time strategy game that pits an individual against the computer's artificial intelligence in what equates to a complex game of chess. These games are ultimately limited in scope and lack social depth. To be engaging, a single player game requires a definitive starting point, an ending point, and has very limited re-playability. Additionally, single-player games artificial intelligence (AI) is limited by its nature and coding. It does not offer the challenge or unpredictability that interaction with other humans does.

Taking advantage of advances in online capability, many single-player games developed and added multi-player capabilities. These multi-player elements allow the users to connect either by internet or LAN and work either cooperatively or competitively

to progress through the game. Not only do multi-player games allow for more challenging components, they also add a social element to what is a socially reclusive activity. As time has progressed, games with multi-player capabilities have blossomed and currently make up an ever increasing portion of the PC gaming industry. Millions of people worldwide subscribe to online gaming services and many modern games are now developed with a single-player story line that exists within a multi-player oriented gaming environment. This movement toward multi-player games was highlighted by recent research done by Entertainment Software Association (2007) found that, "Forty-four percent of most frequent game players say they play games online, up from 31% in 2002" (p. 2).

At the opposite end of the spectrum from single-player games are MMOGs. These games are designed with an open ended, constantly evolving storyline. They are designed to embrace a heavily social game environment. Players interact with one another through virtual characters. Groups form and social networks are created. Because a core element of MMOGs is socialization, the focus of the games has shifted drastically. In place of creating a game with a specific quest or challenge, MMOG game designers create a rich digital world for individuals to exist and advance within. However, unlike single and multi-player games which are essentially winnable due to the presence of a particular end point and strategy, MMOGs do not have a definitive end to their story. Instead, the persistent, constantly evolving game world serves as a sort of metagame within which there are thousands of smaller individual challenges. These challenges vary widely and offer a broad list of choices. An individual can choose from thousands of pre-coded quests, battling epic monsters for fame and equipment, earning

experience through any multitude of ways to increase a character's status and power, gathering and harvesting, and even crafting. In addition to each of these more classical gaming elements, users can establish gaming communities, lead other players to war, become a trader, work the very real in-game economy, and in some cases such as in Linden Lab's MMOG *SecondLife*, create new content that is actually added to, and expands the game.

The complexity and open-ended nature of MMOGs, make their player base unique. Instead of a sequence of short interactions as is seen in most multi-player games, individuals engaging in MMOG play may interact in the same community on a regular basis for years at a time while developing a reputation, friendships, and even romantic relationships. It is a direct result of the depth and capability of these games and the internet, when combined with extended social exposure on a daily basis, which has created what is in many ways a parallel life that exists and affects an individual's real life. To this end, these games are not simple distractions, but rather exist in a social environment as real as Friday night poker with the boys, a first date at a movie theater, a leadership position in a local organization, or a promotion at work.

Guilds

Since the emergence of Usenet or newsgroup bulletin boards, the internet has facilitated collaborations around shared interests or purposes. Online gaming is no different. The language that has been adopted to describe gaming groups borrows from anthropology. In addition to understanding the makeup and nature of multi-player games it is also necessary for an individual to be familiar with a specific type of online gaming community. Within the context of online gaming, communities form. These

communities are typically referred to as clans or guilds. The different labels depend on the online game e.g. guilds in Sony Entertainment's *Everquest*, or clans in Sierra's *Counter-Strike*. Regardless of the particular choice of nomenclature, the core nature of the organizations and purpose they serve remains constant. For the sake of consistency these groups will be called Guilds throughout the remainder of this paper irrespective of their game affiliation.

Gaming guilds are in effect digital clubs which have been developed and established to help facilitate friendships, achieve common goals, build reputation, and provide a social support group. Guilds range is size depending on game, focus, and level of success and composed of anywhere between five to 2,500 members. Due to their social emphasis each guild is essentially unique and to that end there are literally thousands of guilds in existence for each game. Since there is very little data available, the following is basic information for Blizzard's *World of Warcraft* to help illustrate the potential scope of the guild presence. In September of 2006, Blizzard reported that *World of Warcraft* had reached seven million active subscribers (Schiesel, 2006). If we take those 7,000,000 and assume conservatively that only half – or 3,500,000 subscribers are currently members of gaming guilds, and then assume that the average gaming guild's size is 100 members, *World of Warcraft* alone would have over 35,000 gaming guilds. While that 35,000 serves to illustrate the sheer number of potential guilds, given the conservative numbers used for the illustration, and the reality that in *World of Warcraft* each account can have up to 10 characters per server, each linked with a different guild, the actual number of users could easily be twice that amount.

One key element when understanding guilds is that as social groups they each serve a purpose above and beyond networking. In some cases it is competitive/financial gain – a prime example of which can be seen in the competitive guilds that play Sierra's *Counter-Strike* in the Cyber Athlete League's professional five man tournament which last year had a $100,000 prize for first place (PR Newswire, 2006). Other gaming guilds typically focus on membership demographics, gaming ability, role-playing emphasis, real-life affiliations, or fostering a general family dynamic. At their core however, the primary function of a guild is to create a selective community. That community always includes a hierarchical system which includes power differences and notes the chosen ideology of the community's membership. The chief advantage to the guild structure is that it facilitates the bringing together of like minded individuals in a community that reflects and embraces its membership's core gaming and behavioral ideologies.

Common Characteristics

Typically, particularly among MMOG oriented gaming guilds, there are several key elements successful guilds share. The first of which is a website which contains basic information about the guild and forums for out-of-game communication. Forums are electronic bulletin boards that provide a public space for discourse. The second is a defined hierarchy. While the levels and complexity of the hierarchy differs from guild to guild all typically have at the very least a three-level system. The first level is affiliated with guild ownership and leadership and typically consists of one leader. Variations include leadership councils or dual leadership structures. The second level is dedicated to officers. These officers work to enforce guild policies, handle recruitment, and carry out the guild leadership's orders. The third level is that of general membership. These

individuals typically have sought out the guild based on its reputation and focus. They were either recruited or applied and were accepted into the guild, not unlike sorority and fraternity rush. The third major element in the majority of gaming guilds is a rule set and or charter. These rule sets and charters serve as a guiding framework to help ensure that the guild adheres to its focus. In a competitive, achievement-oriented guild it is not uncommon for guild policy to require a set time commitment or level of activity and dedication from its members. In a role-playing guild where individuals attempt to assume and act out their character's persona, member's ability to speak out of character would be restricted to certain instances. Most guilds typically have a defined code of conduct which caters to the type of membership and central focus of the guild.

Personal Involvement In Computer Gaming

In 1997, at the age of twelve, I took my first real steps into the world of online gaming. Playing on a Gateway Pentium 2 180 megahertz computer and connecting to the internet over a 56k modem which typically connected at about 28kbs/second, I set up an online account and began playing Blizzard Entertainment's *Diablo I* on their multiplayer network called Battle.net. Within months I was hooked by the socially diverse nature of online game play, and soon, with the aid of a friend, established Heavens Demons, an online gaming guild bringing together like-minded individuals who advocated moral game play and abstained from cheating or regular player killing. Over the following year as I engaged in the game I began to realize that the skills I was employing to motivate my membership, solve conflicts, and build relationships between members were very 'real world' in nature and not just idle behavior. As time progressed, I became acutely aware that the skills I had developed in the real world to motivate friends, build common

interest, and resolve conflict were pivotal to my success as a guild leader and were easily adapted to CMC. This observation reflected findings by Walther (1992) that suggested that differences in tone between CMC and face-to-face interaction is a result of reduced opportunities to interact in CMC and not a direct effect of the CMC medium as a whole as had been previously suggested. Due to this, I began to understand that as long as I was conscious of the differences in communication between CMC and face-to-face communication my experiences online were helping me improve real-life abilities and vise versa.

A year later I retired from the game and in 1998 began playing Microsoft's *Age of Empires.* As with Blizzard's *Diablo*, I quickly outgrew the single-player element of the game and, seeking fellow players, began playing completely online. *Age of Empires* was the last game I played in a serious fashion that had been designed as a single-player game. Within months, unable to find a community that satisfied me, I established an online gaming guild. I adopted the name, The Legion of Light. As with Heavens Demons, The Legion of Light adhered to many of the same ethical principles and, despite my youth, I targeted predominantly adult gamers. While MMOGs like *Everquest* and *Ultima Online* had started to note the presence of gaming guilds, their importance as a major social element the majority of game developers had not. *Age of Empires* was no exception. As a result, the players developed ways to transcend the game and build communities.

To help speed up and facilitate real-time communication gamers began using chat programs like ICQ, MSN Instant Messenger, AOL Instant Messenger and MIRC[i] which were not game dependant. Later, when technology had advanced sufficiently to support

the software's bandwidth and processing demands, software was developed for/by or adopted by the gaming community such as Ventrilo[ii] and TeamSpeak[iii]. These programs are in essence internet based conference call software that can simultaneously support large numbers of users from anywhere in the world. They are compact enough that the drain on bandwidth and system resources does not hinder game play and versatile enough that they can be used by large numbers of individuals at the same time. As I worked to foster improved in guild communication, I continually encouraged the use of all of the above technologies. Software like MIRC and Ventrilo were particularly instrumental in enriching communication when holding guild meetings and fostering community in several of the games as we waited for them to be launched. However, regular use of an instant messaging program, typically MSN Messenger was also a cornerstone of guild communication. The cumulative use of these programs was instrumental in facilitating community and communication since as Walther and Burgoon (1992) note:

> "The limited bandwidth of CMC offers less total information per exchange than does FTF [Face-to-Face] exchange, and the progression of relational development should therefore be slower in CMC than FTF. CMC partners may require more verbal message exchanges than will FTF partners in order to achieve similar effects. Eventually, however, these levels should converge" (p.6).

In addition to using these real time CMC applications we built media rich websites to serve as advertising pieces and information stores. These sites were typically significantly larger and more graphically/media oriented than business or education-oriented websites

in part because gaming typically requires faster internet connections and higher power systems than average consumers.

Perhaps most significantly however, to facilitate group discussion and overcome the difficulties posed by time zones and differing schedules, we embraced the emerging technology of forum software which was based loosely on the bulletin board technology that had largely died off when the internet gained popularity. Most common forum software at its core is an advanced bulletin board system that hierarchically divides content into customizable sections. So, upon navigating to a forum a user is then presented with a number of categories each of which contains a brief description and link to an individual section of the forums. Within each of those sections the user is presented with a page displaying the most recently posted/replied to topics (threads). Each thread's subject is displayed as well as basic information about the poster and number of responses. Upon selecting a thread, the initial poster's post is displayed followed by any responses that have been made at which point in time the user can post a response or navigate back and continue reading other threads. Forum technology allows for the combining of media attributes, social phenomena, and social-psychological processes which Walther (1996) notes can create a hyperpersonal environment. He also states that this hyperpersonal environment may in some cases surpass face-to-face communication by increasing the clarity and process of source, receiver, channel and feedback processes (p. 3).

While forums have become a cornerstone of the modern internet world, the gaming community's use of and role in the development of forum software like phpBB, Invision Power Boards, and ezBoard[iv] in many ways helped shape the future of internet

message boards. Online gaming's influence can be seen in many of the core elements of a forum. For example, most forums require the selection of a handle (name) or avatar to represent you, areas for signatures to identify yourself further, instant messenger contact fields and built-in private message systems. Each of these hyperpersonal elements is representative of the various needs and requirements guilds regularly have and reflects findings by Walther (1996) which indicated that forums and other similar CMC technology expand our capability to operate interpersonally (p.6).

As guild leader, I found myself in an incredibly informative position. Not only was I learning new things about leadership, power differences, conflict behavior and resolution, morale, and psychology, I was also responsible for researching, creating, and designing the social framework within which The Legion of Light operated. Time has revealed the true extent of the education I received from my endeavors in online gaming. The experiences and observations I made as a result of my online gaming taught me the core principles of many of the fundamental communication and sociological theories I am studying at the college level. Even more significant, I strongly believe that the experiences I had through my leadership role in Heavens Demons (which maintained an average international membership of approximately thirty individuals) and The Legion of Light (with an average membership of over one hundred fifty individuals) offered unique insights and experiences many of my fellow students will not have until they enter the professional world.

In 1999, eager to switch my gaming focus, I decided to restructure the guild's leadership hierarchy and add a game-specific divisional leader to run the Age of Empires side of the guild. This allowed me to maintain overall leadership while changing my

focus to Sony Online's *Everquest*. *Everquest* was my introduction to complex MMOGs. This game elevated my appreciation and understanding of the significance of Computer Mediated Communication and internet-based communities to an entirely new level. After a brief introductory period, I created a second division within The Legion of Light that catered to *Everquest* players. Unlike the previous multi-player games I had been involved in, *Everquest* designers had actively built in mechanisms for guild-oriented dynamics and content. These elements greatly supplemented the ease and extent of communication. They were an excellent extension of the website and forums we were already utilizing. Prior to *Everquest*, membership in a gaming guild served merely a social function. In *Everquest* guilds became a necessity. Additionally, in place of small eight or ten person environments, the MMOG world was a completely unique environment, with some content requiring as many as 80 or 90 players working together in a concerted effort to tackle the content. The coordination involved in leading these large-scale content raids would not have been possible in a standard face-to-face interaction. Instead as Walther (1996) illustrates CMC served to increase task focus as, "decreased personalization has the simple effect of leaving a greater proportion of a group's work time for its instrumental task" (p.4). This allowed for one or two individuals to lead precise, large scale raids, which would have taken months of practice and preparation to carry out in a face-to-face environment.

A Shift In View

In 2001, Edward Castronova published the results of research done on the *Everquest* economy. His research served as a major eye-opener for both the gaming and

academic communities. This served as a catalyst that began a movement to understand online games and the communities they have created. Castronova (2001) noted that:

> "Norrath is a virtual world that exists entirely on 40 computers in San Diego. Unlike many internet ventures, virtual worlds are making money -- with annual revenues expected to top USD 1.5 billion by 2004 -- and if network effects are as powerful here as they have been with other internet innovations, virtual worlds may soon become the primary venue for all online activity" (p. 1).

His observation has turned out to be more real than many expected. With the creation of Linden Lab's Cash in/Cash out game *SecondLife*, and other competitors such as Activeworlds Inc.'s *Activeworlds* and Mindark's *Entropia Universe* gaining popularity one can see the boundaries between the game world and the real world eroding. Money has always served as a great motivator for research and development, and as these games increase in popularity their financial presence also grows. One current example is *SecondLife* which on March 17th, 2007 reported (SecondLife.com, 2007) the amount in USD spent in the last 24 hours through the game as being $1,591,890. These figures reflect a vibrant, diverse, legitimate economy, with money spent on everything from basic services, to clothing, to the sale/lease/ and trade of digital real estate. As these games continue to grow and expand, so too does their influence in both the digital and real world.

That lack of research, balanced against my experiences over the last ten years, has fostered a keen desire to not only better understand online gaming communities and their significance, but also a deep seated appreciation of the significant role these communities

have and will continue to play in modern culture. The signs of that significance are starting to show as the global media and even national governments begin to spend more and more of their time on MMOG related material. A prime example of which is the current changes in the United States tax code to respond and deal with the reporting of profits earned online, a law which was motivated predominantly by *SecondLife* (Wong, 2007). It is in consideration of these factors that it is important to explore and work for a better understanding of the dynamics, composition, and evolution of the MMOG community environment. Particularly at a time when the very nature of the internet is being redefined, in large part as a result of these communities.

The strong personal connection to the topic by the author, coupled with the rising popularity and economic impact of MMOGs, make the topic one of contemporary interest as well as growing cultural and social significance in the United States and abroad. Thus, this study aims to explore the following research questions:

RQ1: Who is participating in on line gaming communities?

RQ2: What purposes and benefits do subscribers receive from their participation in on-line gaming?

RQ3: How do subscribers perceive their online and face-to-face interactions?

RQ4: Have online relations given way to more immediate or face-to-face interactions?

Computer Mediated Communication Research

In order to properly review literature on this subject, it is necessary to look at several major computer mediated communication (CMC) elements that have influenced/shaped/led to the current study of online gaming and MMOG communities.

The first of these is research focused on the evolution, nature, and study of e-mail. The second stage is looking at web-based interactive news groups and forums. The third is social networking sites such as Friendster, MySpace, and Facebook[v]. Since research is so limited on the actual subject of online gaming, each of these core elements not only helps paint a historical backdrop, but also offers relevant data in understanding the MMOG world and how it relates to CMC.

What is electronic mail (e-mail)? Phillips and Eisenberg (2003) describe electronic mail briefly as, "Asynchronous, low in typical paralinguistic information, high in plasticity (the ability to save and store messages), unlimited in potential audience size, limited in contextual cues, and capable of crossing functional and hierarchical lines" (p.3). Given this information, what is ultimately relevant to online gaming behavior and the evolution of gaming communities and their real world significance?

The PEW Internet and American Life Project reports that, "Internet penetration has now reached 73% for all American adults" (2006) and that those statistics are, "up from 66%" as reported in February of 2005. These statistics illustrate the significance of the internet both in and out of the workplace. Since e-mail is such a pivotal part of the internet, particularly in work place environments were it has assumed a major communication role, these large increases in internet usage mean equally large growth in e-mail usage. These growth patterns build upon over 15 years of e-mail development and have changed significantly since the first half of the 1990's when researchers were looking at ways to increase e-mail adoption (Komsky, 1991), and review possible ways to increase responses and foster improved business exchanges (Phillips and Eisenberg, 1993).

In many ways e-mail is the backbone of textual information exchanges over the internet. While still used as a powerful standalone tool e-mail's influences can be seen in core dynamics of how message boards (forums) operate, the private message functions offered on many advanced message boards, as the core elements at work behind instant messaging software, even as the core means of communication on social networking sites such as facebook and myspace which offer the ability to send personal messages. The most relevant of all however is in the actual MMOGs themselves, many of which allow users to send mail and attachments to other users through the game itself. These influences serve as illustrations of both the power and diversity of e-mail and the concepts it reflects.

As e-mail and the internet gained greater popularity users began to look for ways to further ease and facilitate non-real time communication. While e-mail allowed for rapid exchanges of information, it made discussing multiple topics at once with multiple individuals in unison difficult. The solution to this dilemma came in the creation of software that allowed the creation of interactive, collaborative mass media outlets: the bulletin board. Rafaeli & LaRose (1993) defined these outlets as, "Collaborative mass media systems, in which the audience is the primary source of media content as well as its receiver, represent a new and significant departure from conventional mass media forms. They expand the very definition of mass media, from 'one-to-many' to 'many-to-many' communication" (p.1). Two years later additional research was done into the allure of online bulletin board systems at which point researchers concluded that bulletin boards were gaining popularity due to, "1) a large potential audience; 2) fast sending and retrieving of messages; 3) nearly transparent "posting" of messages (weak gatekeeper

functions); 4) large variety of special interest groups available; and 5) relatively low cost (variable, depending on service)" (James, Wotring, & Forrest, 1995, p. 3). Of these five elements, the first four still hold true today. With the widespread adoption of unlimited 56k access and high speed constant connections the fifth allure – cost – has become irrelevant.

Online forums played a significant role in the early development of online gaming communities by facilitating communication between likeminded gamers looking to build communities. At the time very few of the online games had acknowledge the existence of gaming guilds and as a result most guilds operated as a social construct run completely by the gamers themselves for the gamers. In the period leading up to the first successful MMOGs forums provided a major breakthrough for online gaming guilds. Instead of attempting to coordinate group events, policies, and general out of game communication through bulk e-mails forums provided gamers with a reliable way to communicate and organizes events. While not directly linked to gaming it was a similar desire to build communities and share information that led to the creation and widespread popularity of social networking sites.

Friendster, *MySpace* and *Facebook* represent three of the most popular and widespread social networking sites. These sites started by building upon the basic profile components developed by online dating services and redefined the target audience. Instead of focusing exclusively on matchmaking, social networking sites focused on websites where individuals could create profiles that reflected their interests, passions, and affiliations and share that information with their friends while at the same time still providing sufficient information to help facilitate romantic relationships.

As had occurred previously with online message boards, these social networking websites provided a central digital community for individuals to gather and communicate. These networking sites were beneficial in that they allowed the users to maintain their social networks while sharing information about themselves and keeping up to date on others goings on without having to physically follow up with each individual on a daily basis. Simultaneously, these sites allowed individuals to foster new relationships with casual acquaintances and strangers without fear of the awkwardness and self esteem issues associated with real world first encounters (Valkenburg, Jochen, & Schouten, 2006). As a result they have been highly successful, so successful in fact that major media figures have taken interest. The *Wall Street Journal* noted in a March article that Presidential John McCain and his campaign had set up a MySpace page in order to appeal to the social networking audience (Politics & Economics: In Brief, 2007).

Social networking sites are relevant to CMC, as it relates to the MMOG community, because many of the elements that make social networking sites so successful are mirrored in MMOGs. For example, the allure of software that allows access to a large social community is the same for both communities. Additionally, both face the social and safety issues that stem from online communities as they are carried over into real world, face-to-face interactions. Both also offer the ability and opportunity to create and design a highly customizable avatar that represents you and is visible to other community members. In social networking sites the avatar is the users' profile page; in MMOGs the avatar is the users in game character. Despite the visual differences, both share many of the same core elements. As researchers explore the social

composition and factors in social networking sites, they are also laying the groundwork for the future study of MMOG communities.

Methods

In order to garner a better understanding of communication behavior and patterns in MMOG communities, it was first necessary to address the fundamental issue of how one appropriately gathers data from a community which exists and communicates almost entirely in cyberspace. Moreover, how does one collect data on a subject that spans multiple games, has millions of international subscribers, and does not involve any central location where the target group gathers? Due to privacy issues, inability to garner contact information, and expense, phone polling was not an option. As the intent of the research is to gain a better understanding of scope and diversity of the gaming community, focused narrative interviews were ruled out given the game-centric nature of the subjects activities. Further, any other sort of wide-scale survey or poll was out of the question due to audience scope, lack of availability of personal information, and financial limitations. The solution to the data collection question was made possible by the subject group itself.

Communication itself is the major element in every MMOG community. Although limited by the geographically diverse nature of the audience, forum software has come to serve as a major communication element for major gaming communities allowing both synchronous and a-synchronous message exchange between members. Using the group's existing communication software and an on-line survey was the ideal solution given the vicissitudes of the community's nature and their access and familiarity with the technology. Recruitment was done by convenience sampling and solicitation

through postings at online Forum or message boards. Focusing on forums provided a large, active, social, game-related audience that could be recruited to complete an online survey. To collect the data, the online survey website *Survey Monkey* was used and a three page, 22-item questionnaire was posted there. The survey consisted of seventeen bullet/checkbox questions and five open-ended essay prompts. The bullet/check box questions also included an "OTHER" field with write-in options where necessary to help ensure that the respondents were able to provide accurate information and to make an allowance for unexpected factors and elements. The 22 questions were divided into a three-page web survey with questions one to six on page one, seven to seventeen on page two, and eighteen to twenty two on page three. The first page of the survey targeted the survey respondent's demographic information. The second page focused on information about system use and statistics and gaming/internet usage data, while the third included five behavioral/perception oriented open-ended questions.

Once the survey was assembled, the next step was to target the sample's size and location. Initially the target size was assumed to be approximately 30 respondents with projected survey duration of one month. This estimate was based upon conservative expectations which failed to take into account three key factors: 1) the willingness of the audience to participate. 2) size of the audience. 3) the composition and nature of forum turnover and flow. After publishing the survey on fifteen MMOG specific gaming forums[vi], it became obvious that there was support for a much larger and more thorough audience sampling. In response to the large influx of responses, survey duration was reduced from one month, to one week, and the target sample size was raised from thirty, to one hundred fifty respondents. The survey was initially distributed on Monday March

12, 2007 and closed on March 19, 2007. During that week the survey received 290 responses from individual respondents, far surpassing the target of 150 respondents. Of those 290 responses, the first page, which consisted of seven questions, received a 100% response rate. The second page, which contains eleven questions, received 270 responses with 20 respondents either skipping the page or abandoning the survey. In addition to the 20 individuals that did not answer any of the questions on page two of the survey, two individuals chose to skip questions 10 and 13, but completed the other nine questions on the survey page. Question 10 asks for data on an individual's internet connection, while Question 13 asked for data on money spent on computer upgrade costs. Page three was the most labor intensive to respond to, and as a result received the most varied response rates. The following table shows the prompts and the corresponding response statistics.

Table 1

18. Why do you engage in online gaming & what are the benefits you receive?	
Total Respondents	**158**
(skipped this question)	132
19. How do you see it (online gaming) different than face-to-face exchanges (gaming or otherwise)?	
Total Respondents	**154**
(skipped this question)	136
20. Does your behavior differ when you engage in online gaming vs. face-to-face exchanges? If yes how?	
Total Respondents	**157**
(skipped this question)	133
21. Have you sought or do you seek out face-to-face contact with your online gaming contacts?	
Total Respondents	**159**
(skipped this question)	131
22. If applicable - what are some examples of how your online gaming experience has helped you in the real world?	
Total Respondents	**132**
(skipped this question)	158

Previously, I noted three issues contributing to the rapid and larger than expected response. Regarding issue one, given that there was no benefit/compensation offered in exchange for the participants' time beyond the ability to contribute to research into online gaming, the number of respondents was surprising. Particularly given that the questionnaire was only posted on fifteen forums. Also, that the responses were given without any social pressure to participate as might have been the case had the participants taken the surveys in a non-digital format, and had the survey been administered by a highly visible researcher/supervisor. A final interesting factor was the validity of the data submitted by respondents. Given the virtually complete anonymity involved in the submission of survey data and the higher than expected rate of completion, the type and quality of data received could be of concern. However, upon review of all the data, there was only one set of responses which were patently false and fallacious data where someone used a pseudonym and biography from the recent film *Borat*

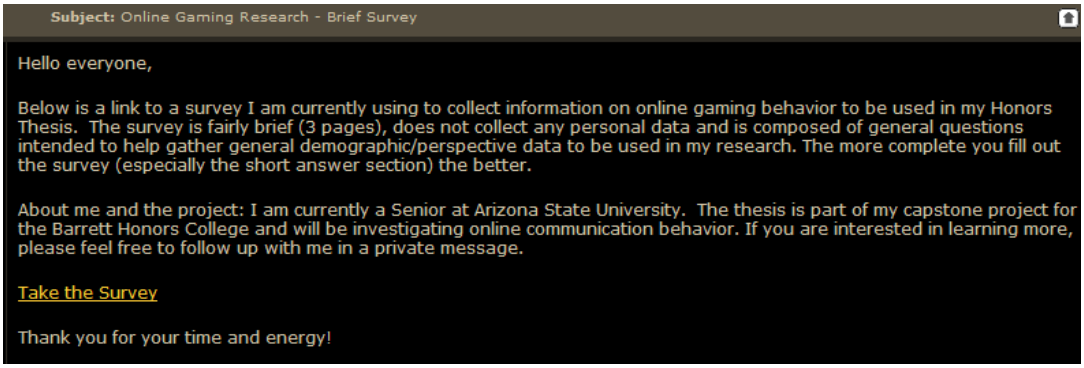
Issue two concerned the size of the audience who participated. While forums provide usage statistics for the number of registered accounts and quantity of posts, there is no way to evaluate how many individuals were actually active on the target forums. Nor is there a way to tell how many chose to open the survey during the week that it was posted and open.

Issue three relates to the very nature of forum software itself. Quite simply, it is like a corkboard or any other type of bulletin board the more recent a topic or posting, the more visible it is. As new topics are added the older topics become buried. Depending on the level of forum activity, a topic can be on the first page (which typically displays 25-75 topic titles/links) for anywhere from months to mere minutes. In order to ensure

and maintain visibility on the more active forums such as the *World of Warcraft* and *Everquest* forums, I utilized what is commonly referenced to as "bumping" behavior throughout the course of the week. This behavior involved posting a response or follow up once the forum post requesting participants had been pushed off the first display page. Each response to the initial topic returns that topic to the top spot in the forum. The result is a constant leapfrogging process until a discussion is eventually exhausted and goes inactive.

The following cut/paste message was utilized across all 15 forums once I had completed the forum registration steps:

Table 2



Depending upon the forum, the message received widely different responses ranging from active interest to personal insults and attacks. Interestingly, various communities had varied atmospheres – some were supportive, others aggressive, yet others highly dismissive. The responses to the post itself typically reflected the general atmosphere throughout the forum. Of the fifteen postings, one site deleted the posting almost immediately. No reason was given. A second site closed the topic after it was posted and it caught the attention of a group of highly negative posters. A third site had set up a place to post surveys, at which point in time the post was re-posted there to respect their

site policies. The general tone of the replies to the post across the other twelve forums was either positive or neutral if any reply was given.

Sample Selection

Forum selection was done based on accessibility and probability of audience participation. The survey was posted on forums for *Everquest I*, *Everquest II*, *Dark Age of Camelo*t, *World of Warcraft*, *SecondLife* and *Vanguard: Saga of Heroes*. These are games which dominate the industry. Where possible, a posting was placed on the game's official website. If that site did not have forums, or limited the forums to subscribers only, then the posting was made at major community sites found through Google or the official company's website community links page. All sites that were targeted showed a high number of registered/active users except for the two postings made on The Legion of Light guild website. These two postings were made because of my direct affiliation with the guild which in turn ensured a much higher response rate than other target forums. Due to the high response volume with the limited subject group selected, the decision was made not to expand the forum postings into other games/major game forums. While this may have limited the nature of the responses somewhat, it was believed that many within the MMOG community had or would currently be involved in a number of other MMOGs. This was confirmed by my survey data which showed a full 50% of respondents had played six or more MMOGs in their gaming careers which offers much more far reaching MMOG coverage than if say, the majority of respondents had been first time MMOGers, in which case additional forum diversity might have been

necessary for a representative sample. The range of responses to all items of the questionnaire was both interesting and edifying for the experience of the project's author and researcher.

Survey Data

Of the 22 questions, the first 17 were either selectable answers or checkmark boxes. Many of the questions included an "OTHER" category so that respondents could either enter diverse answers or new/unexpected responses as necessary. The following section discusses those additional responses, common themes, as well as issues that arose with some of the questions. Please refer to Appendix A for tabulated survey responses for any of the 22 questionnaire questions if data is not immediately provided.

Question one was a demographic question that asked for the respondent's age. There were two errors in the question. The question appeared as follows:

Table 3

1. What is your current age?	Response Percent	Response Total
13-17	4.50%	13
18-22	15.50%	45
23-27	**17.20%**	**50**
28-32	16.60%	48
32-35	**17.20%**	**50**
36-39	13.80%	40
40-45	9.30%	27
Over 50	5.90%	17
	Total Respondents	**290**
	(skipped this question)	**0**

The data[2] points to a significantly older gaming presence/community.

[2] There were 2 errors in this question, Error 1 occurred in a mistype. The mistype involved the double coverage of 32 in the 28-32 and 32-35 categories. Error 2 occurred in the form of an age gap between the '40-45' and 'Over 50' options which failed to account for a 5 year age group. While these errors were somewhat severe, in the long run they do not effect the general value of the response data as it is only being used to illustrate the diversity and nature of MMOGer demographics.

Question two requests information about respondents' sex. The questionnaire shows four times the number of participating males than females. The following Table illustrates the survey results:

Table 4

2. What is your sex?	Response Percent	Response Total
Male	**80.70%**	**234**
Female	19.30%	56
	Total Respondents	**290**
	(skipped this question)	**0**

Questions three and four deal with the respondents' native language and place of origin. While the vast majority of respondents, 80.7%, report being from the U.S., 19.3% reported being from other countries. Out of the 290 respondents, 20 reported a language other than English as their native tongue. Of the 56 that reported gaming from outside the United States there were respondents from Canada, England, Scotland, Australia, New Zealand, Sweden, the Philippines, France, Germany, Czech Republic, Denmark, South Africa, Holland, and South Korea. Two of the 56 showed signs of misrepresentation by providing "Kazikstan" and "Carjakistan" as their nation of residence.

Question five deals with respondent's professions. While the question covers many key areas, if asked again it would be prudent to include fields for retired individuals as well as people employed as engineers. The majority of respondents reported working in an IT field, surpassing the student population by a notable percentage. The complete results were as follows:

Table 5

5. What is your current profession?	Response Percent	Response Total
Student	21%	61
Education (non-student)	2.80%	8
Military	4.50%	13
Government (civil service) field	3.40%	10
Banking	1.40%	4
Finance	4.10%	12
Computers / IT	**25.20%**	**73**
Marketing	1.40%	4
Retail / sales	4.10%	12
Service	5.50%	16
Unemployed	7.60%	22
Other (please specify)	19%	55
Total Respondents		**290**
(skipped this question)		**0**

Respondents who selected the "OTHER" option reported employment in a wide variety of industries. Three of the most common responses were engineering, parenthood, and retirement. However, others reported being employed as professional video game designers, singers, bar owners, law enforcement officers, lawn care specialists, health care specialists, lawyers, professional movie animators/technical directors, roofers, pharmaceuticals and a number of different medical fields. This data shows that many of the MMOGers are involved in highly professional careers.

Question six deals with respondent internet usage. Based on the "OTHER" responses the only major exclusion was pornography with seven of twenty two "OTHER" responses listing pornography.

Table 6

6. What do you use the internet for?	Response Percent	Response Total
Banking	63.10%	183
Homework	30%	87
Research	78.30%	227
Publishing (blogs etc.)	22.80%	66
Entertainment (Youtube etc.)	80.70%	234
E-commerce	40%	116
E-mail	90.30%	262
Gaming	**97.60%**	**283**
Instant messaging	53.10%	154
News	79%	229
Social networking sites (myspace etc.)	32.80%	95
File sharing/downloading	55.20%	160
Other (please specify)	7.60%	22
Total Respondents		**290**
(skipped this question)		**0**

This research shows several unexpected trends. The first of which is the relatively low usage of instant messaging (53.1%) compared to an unexpectedly high reported use of the internet for research (78.3%). Additionally, with only 30% of respondents reporting using the internet for homework, and 40% reporting using it for e-commerce, these results emphasize that the bulk of respondents are not students.

Questions seven and eight deal with time spent online. Both questions asked about time spent on the internet, however, Question seven asked about time on the internet in general while Question eight asked specifically about time spent gaming. Question seven found that over 50% of internet users reported spending more than thirty hours a week online. This online time included both work uses and recreational uses. Question eight found that the majority of gamers spent somewhere between ten and thirty hours a week in game. It is interesting to note that the amount of time these gamers spend in game is equivalent to a part time job.

Questions nine through 11 gather information on respondent internet connection type and location. There was a high percentage of high-speed internet users. Home/work is the primary connection location. Based on responses to questions nine through 11, a full 98.9% of users connected from home, while 50.7% also reported connecting from work. The next closest connection location was the library, with 8.1% which was noted as a more popular connection location than from cyber cafés and Local Area Networks (LAN) Centers combined.

There is a large gap between the number of high speed internet users and 56k modem users. A full 96.3%, or 258 of 270 respondents, connect to the internet through cable and 2.2%, or six users, connect via 56k modem. There are also four users (1.5%) that report using satellite connections. Given the varied speed of satellite connections it is difficult to categorize these four users as high speed or low speed connections.

Questions 12 through 14 deal with respondent machine cost and follow-up upgrade costs. Question 12 specifically asked about machine purchase price. 70% of respondents report the purchase of a machine somewhere in the range of $500-$2,000 USD, while 9.6% of respondents report spending over $3,000 for their machine. Only 3% reported purchasing their system used. Question 14 deals with the age of the system and found that 45.2% of systems were less than twelve months old, while 41.8% of machines were between thirteen and twenty four months old. Only 22.6% of machines were reported as being more than two years old. Question 13 found that a full 38.8% of respondents reported spending $400 or more on system upgrades in the last three years, while 22.4% of respondents reported spending $100 or less.

Questions 15 and 16 seek information on respondents' gaming experience. Question 15 asks about MMOGer's gaming resumes and results demonstrate that a large percentage of MMOGers have relatively limited MMOG experience. Research found that a full 50% of respondents noted having played 0-5 MMOGs. In addition to the 50% that reported having played five or fewer MMOGs, an additioal 25.9% reported having played between six and ten MMOGs. The number of gamers reporting having played between 11 and 15 MMOGs continue the trend and fell by more than half compared to the previous categories with only 10.7%. Only one respondent reports playing between 16 and 20 MMOGs. 13% report having played over 20 MMOGs.

Framed by the data collected in Question 15, Question 16 collects data on the various MMOG's that respondents have played. The most prolific was *Everquest I*, with 77% of respondents having played it. *World of Warcraft* was the second most played game with 65.2% of respondents having played it. *Everquest 2* was the third most played, followed by *Dark Age of Camelot*, and *City of Heroes*. In addition to the 14 options given, 96 respondents entered data in the "OTHER" field. While the responses were extremely diverse, the most common response was *Vanguard: Saga of Heroes* which is a recent release by Sony and Sigil games. In retrospect, given that the survey was posted on a number of *Vanguard: Saga of Heroes* forums, the game itself should have been included as a checkbox in Question 15.

Question 17 covers respondent's other multi-player games. While the results provided general background information about the respondent audience's gaming experiences, the data did not reveal any particular trends beyond stating the obvious and finding that MMOG gamers had played other non MMOG games.

Analysis and Discussion

The questionnaire data provided insights into the demographics, behavior, and thought process of the surveyed gamers building upon previous research. The first 17 questions offered demographic data which framed the last 5 free response answers. This data offered clear cut answers to each of the four research questions and showed that face-to-face meetings and real world relationships may not be as uncommon as initially expected, while also illustrating the nature of respondent's self image as they operate online. Further, it showed two widely different perspectives on the nature and value of online interactions.

Research Question 1: Who is participating in on line gaming communities?

Research Question 1 asked, "Who is participating in online gaming communities?" Data shows that 64% of respondents were between the ages of 23 and 36. Only 20% of the respondents were 22 years of age or younger. This data is strikingly similar to Entertainment Software Association's demographic research that found the average age of computer and video game players to be 33 (2007). This data counters the classical cultural stereotype that gaming is the sole realm of teens and young children.

Spending patterns seem to parallel the older average age of the gaming population. For example, the disposable income for a 19 year old college student will probably differ greatly from a 34 year old business professional. This offers insights into the responses received for Questions 13 and 14 which showed that the bulk of respondents had invested over $400 on upgrades in the last 3 years and were using fairly new machines (77.4% of machines were less than 2 years old). With the bulk of respondents reporting expenditures of $500-$2,000 on their machines, and $400 in

upgrades it reflects a sizable investment on behalf of the gamers in their systems. Additionally, an older demographic was reflected in and explains the reported uses of the internet. While 32.8% of respondents reported using social networking sites and 30% reported using the internet for homework these numbers were dwarfed by the number of respondents who reported using the internet for news (79%), research (78.3%), banking (63.1%), and e-commerce (40%). These differences in usage patterns reflect the demographics and needs of the MMOG audience further illustrating why MMOGs are not just games made to entertain the world's youth.

Another key element in understanding the composition of the MMOG community is gender appeal. The primary focus of many early computer games such as the *Doom* series, *Commander Keen*, *Duke Nukem* and *Wolfenstein 3D* revolved around violence and problem solving. Gaming quickly became viewed as a male-centric industry. Inside of these games, women were portrayed as busty, beautiful and scantily clad. The games themselves were representative of stereotypical masculine behaviors and gendered attitudes. However, over the last 10 years a major move has been made to broaden the nature of the gaming environment by introducing more female-friendly games. Games like *The Sims, Everquest, and SecondLife* have gained widespread popularity and now comfortably share the gaming market with games like *Grand Theft Auto* and *Counter-Strike* (Friedman, 2007).

The result has been a steady increase in the number of female gamers playing online games and as the questionnaire showed MMOGs. Of the 290 respondents, 19.3% reported being female. The Entertainment Software Association (E.S.A.) reported that in their poll of online gamers a full 42% of respondents reported being female. They also

found that, “Women age 18 or older represent a significantly greater portion of the game-playing population (30%) than boys age 17 or younger (23%)” (Entertainment Software Association, 2007). This shift and inclusion of female gamers was explained in part in the open-ended answer questions (18-22). Female respondents reported that they had begun playing the game to keep in touch with family because a loved one or spouse had begun playing, or because they enjoyed the social element. One respondent noted, “I started playing because my husband was, but now I’m fully ‘my own person’ in online gaming” (Respondent 387983162). These observations reflected data from previous research by Nick Yee (The Daedalus Project, Stanford VR Lab, and the PARC PlayOn Group), in which he found that 26.9% of female players were introduced to online gaming by their romantic partner (Yee, 2006).

The number of female respondents also may be tied to the nature of MMOGs which offer alternatives to the classic pure shoot-‘em’-up or hack-and-slash nature of most single player/online games. With games like *SecondLife*, that focus almost completely on designing content, participation in a highly customizable world and socializing, there are now elements to MMOGs that in many ways cater to both experienced and first time female gamers. In games such as *Everquest* and other Role Playing (RP) MMOGs, trade skill elements have been added as well as housing and home décor, non-combat oriented clothing, and recent games such as *Vanguard: Sage of Heroes* have introduced advanced game elements oriented around diplomacy and exploration.

The result is a world that caters to the classic gender roles while allowing individuals from both sexes to safely explore what might ordinarily be considered more

masculine or feminine behavior. For example, in *Everquest II* an individual can rent an apartment and then customize that apartment by selecting flooring, wall color, and other custom accessories. Then further customize the space by purchasing and placing furnishings such as pots, pans, candles, beds, dressers, rugs, lamps, books, and ornaments. Given cultural norms, these behaviors would typically be seen as more feminine in nature if openly embraced by a male in a real world environment. On the other side a woman can embrace gritty player vs. player combat, a classically masculine behavior, without having to fear her sexuality or femininity might be questioned.

Geographic location is another important element when considering the MMOG community and one of the hardest to study. As the gaming industry has blossomed internationally, game development has diversified and catered to the various international consumer groups. As a result many games have different versions of the MMOGs they offer which operate in different languages and/or on continent specific servers. There are completely different communities within the greater game community that cater to and support various cultural groups. As a result, study of the international MMOG community as a whole was beyond the scope of this paper. Instead, the decision was made to focus on the multi-national elements within the English speaking MMOG community which caters, but is not limited to, the majority of North/South America, Australia, New Zealand, South Africa and European MMOGers. This central audience is reflected in the questionnaire's demographic responses which showed 234 respondents from the United States and 56 respondents currently living in other nations. Of the 56 who stated they lived in another country, 20 reported a language other than English as their native tongue. Only two reported coming from the Philippines and South Korea.

Since the questionnaire was only posted on English-oriented forums, and posted in English, international responses were limited to English speaking respondents.

Nevertheless these results help shed insight into the culturally diverse background of the MMOG community and the power that these games have as they bring together individuals from all across the world in a supportive environment. The significance of this exposure was reflected in questions 18-22 when respondents illustrated the role that exposure to members of other cultures played in helping transcend the game and offer insights and perspective into other cultures and people. One respondent noted that, "I live in a rural area where there isn't much diversity. Most people share the same ideals and ideas. Through Online Gaming I have become familiar with the thoughts and values of groups of people all around the world and have gained a wider perspective with which to view events and changes" (Respondent ID 389104488). These are insights that would otherwise be difficult to achieve and seldom occur without direct, intentional action. It is truly an incredible opportunity when an eighteen year old high school graduate from rural Arizona can be exposed to, and discuss, world politics, with a twenty five year old Czech school teacher in a game or gaming site's forums.

Research Question 2: What purposes and benefits do subscribers receive from their participation in on line gaming?

Once the demographics are known, it becomes possible to look at what players gain; the benefits that gamers perceive from online gaming. The question of motivation is a complex one to answer. What factor or factors are so powerful that they can draw gamers to these games on a weekly basis for hours upon hours? Over 45% report spending 16-30 hours a week in game, and 13.7% of respondents report spending over 40

hours a week in game. These individuals are investing significant amounts of time in what critics perceive to be an anti-social, non-productive pastime. Further, these usage statistics only represent actual time spent in game and do not address time spent researching the game, watching video footage from the game, or communicating on the forums or in voice chat rooms with fellow gamers. While the statistical data offered insights into the extent of respondents gaming patterns, responses in the short answer section of the questionnaire provided insights into motivation and benefits derived by gamers. The following were most notable: family bonding, romantic relationships, community, cultural exposure, relaxation/entertainment, financial benefits, and educational opportunity. These responses offer insight into the appeal of MMOGs.

Why do people play? The most obvious answer is because they want to and it is entertaining. The modern world is ruled by entertainment options and as a result consumers are constantly bombarded with options that vie for their attention. From television to movies to iPods and the internet the modern consumer is awash in a sea of electronic entertainment. So what sets online gaming and specifically MMOGs apart? In short it is entertaining, interactive and even better it is not geographically limited or weather dependant. It allows gamers to act out their fantasies, be involved and engaged, and to top it off interact with other individuals. Above and beyond the basic thrill and challenge of exploring a new world, conquering a mighty dragon, or besting a friend in a friendly duel, there are also more complex benefits.

The first of these benefits is relationally based. Unlike alternatives such as television or books. MMOGs provide the option of an active, vibrant community in which people can interact and communicate or should they so choose, spend time alone

working through solo-oriented game content. The nature of that social interaction varies. Some respondents reported using MMOGs to keep in contact with family members or foster family time. Others reported MMOGs serving as a dating pool, and yet others reported it serving as an excellent networking tool that helped them meet new people from other locations and perspectives, overcome social anxiety, or keep them socially connected despite real world impediments. It was interesting to note the large role MMOGs appeared to play in romantic relationships, having served as the facilitator of the relationship, to serving as common activity allowing couples to work together and build a rapport.

This relationship building behavior can be seen in one female respondent's comment that it was, "Something my husband was into when we were dating – I started playing as a way to share a hobby" (Respondent ID 388822126). and later when another stated that, "My husband and I prefer this sort of thing over television" (Respondent ID 388836429). This type of relationship building behavior was not limited to romantic couples, but also included entire families. One respondent noted, "It is also something that my husband, son, and myself can do where we both have fun as a family and work together as a team" (Respondent ID 388850567). A statement echoed by another who said, "I can play with my son and his family in Texas and my daughter and her family in Tennessee. My husband plays too and all our grandkids. We have a family guild" (Respondent ID 389396741). The research revealed frequent instances where individuals have not only adopted but embraced MMOGs as a tool to strengthen family connections, teamwork, communication, and even to keep in touch despite geographic distance.

MMOGs not only serve to strengthen relationships, respondents reported that they serve as relationship facilitators. As an individualistic culture it is always a challenge to find potential romantic partners. Particularly after an individual completes their education, many individuals find themselves faced with a limited dating pool of co-workers and friend's friends. In response to this need, online dating and networking sites have become increasingly popular. Given that trend, it makes sense that in the co-operative, social, and diverse MMOG environment many individuals have found romantic partners. One respondent noted that, "My boyfriend of two years and I met in Everquest" (Respondent ID 389148489). Others noted similar stories. Some were positive like those who met their spouse through the game and others less positive like the individual that answered, "Yes I have on several occasions. One occasion resulted in a regrettable affair"(Respondent ID 387958766). As the stigma that surrounds meeting people online continues to disappear and online dating continues to grow this research indicates that MMOGs may serve as the singles 'coffee bar' of tomorrow.

MMOG relationships are not limited to families and couples. The reality is quite the opposite. The bulk of MMOGers play to enjoy an active, social community. One which, as the familial examples note, can help foster a strong, healthy support network, and offer the opportunity for casual socialization. Respondents reported that they played/preferred MMOGs because it required and fostered teamwork while bringing together immensely diverse groups of people. Many respondents noted that one of the advantages of an online environment was that there was no pre-conception of race, sex, age or nationality and that they were exposed on a regular basis to people able to offer varying perspectives and insights from a multitude of backgrounds and cultures.

MMOGs offer all of the thrills and challenges of single-player games, surpass television and books with their social and interactive nature, and all the while provide the gamer with an ever-evolving challenge.

While community was noted as a major element, many also stated that the game was still, at its heart a game and that one of their primary motivations for gaming was simple entertainment. The opportunity to escape to another world for several hours and leave behind the day's stresses and worries while blowing off pent-up steam and breaking up the monotony of work and chores with a little idle play. One individual offered excellent insight into MMOGs as a form of escape and recuperation when he noted, "My job is very stressful as I work in the organ, tissue, and eye transplantation industry. MMORPGS are an escape for me. I get to go into a different world for 4-5 hours a night" (Respondent ID 388858628). Regardless of what leads an individual to a MMOG, once they start playing, everyone is there to relax, unwind, and have some fun.

While the MMOG world offers the opportunity to escape from the real world, it also offers the opportunity to succeed and excel. Many individuals have found financial motivations for their game play. Some noted that one of the allures of MMOG play is to save money, others to learn about money and economics, and yet others to make money either by selling things in the game or selling things for the game. Those that stated that the game was an excellent tool to save money typically gave one of two reasons. The first reason states that MMOGs typically have a significantly longer playability than other single or multiplayer games. Due to this increased playability the gamer is not forced to spend $20-80 purchasing a replacement game on a monthly or bi-monthly basis, which in the long run offsets the initial cost and monthly fee (if one is charged). The second school

of thought typically states that $10-$30 a month for one or two MMOG's monthly membership fees is significantly cheaper than a night out at the bars, or multiple trips to the movies and offers significantly longer entertainment duration.

Budding economics students have been playing stock market simulations and looking at hypothetical markets for years. Based on the open query responses, so have MMOGers. The only difference? MMOGers have been playing and working in a very real market. One respondent noted that, "Oddly enough it helps me strategize my business plan better than if I don't play." (Respondent ID 389567492). While another stated that, "The game economy is [a] simplified real world market. One can learn some basic trade skills there" (Respondent ID 389075513). These two responses reflect a number of similar statements which are covered and reinforced by Castronova's research which established the Everquest economy as a significant real world economic factor (Castronova, 2001). While not directly related to financial gain, in conjunction with statements noting valuable economics lessons many respondents noted that their MMOG experiences have helped them significantly as they work in group environments or operate in managerial positions. One such example was a business professional who stated:

> "I believe my online interactions have contributed to better in-person interactions by building my confidence. For instance, I took over leadership of a guild, and to be honest I wasn't sure I was prepared for that, but now I see that I was. I consider it just as powerful as being promoted to a manager position in my job" (Respondent ID 388072052).

These responses indicate a potentially powerful opportunity for both established and aspiring individuals to not only hone their understanding of economics, but also their management and teambuilding skills while they feel like they are relaxing and unwinding.

In addition to the previous two financial factors, there was third equally significant factor. Many respondents not only reported that gaming saved them money, but some reported one of the benefits of gaming as actually making them money. In games like Everquest and World of Warcraft, services performed in game, accounts/leveled characters and/or in game items are often sold outside of the game for real world currency. Meanwhile other games like *SecondLife* that offer a real world to in-game currency exchange allow players to cash out in game currency for real world profits which in part accounts for the $1,591,890 in currency exchanges reported on the SecondLife website earlier in this paper (SecondLife.com, 2007).

While mentioned to a lesser degree previously in this section, education was the final major benefit that appeared regularly in the open-ended answers. While the education was not garnered in a more standard academic setting, real world education was consistently noted in a wide variety of areas. From fostering a better understanding of money as one respondent noted when stating that, “It has made me more responsible with money, and has allowed me to appreciate working. The phrase 'earn it to own it' has had a nice impact on me” (Respondent ID 389104488), to teaching, “Management skills, People Skills, and Technical Skills” (Respondent ID 389154473). Respondents often articulated lists of skills or projects that have been aided by their participation. The education extended beyond a given encounter or skill set, as one gamer noted it was an

opportunity to learn about different cultures and even, "...what other generations think" (Respondent ID 389374728). For some, it has even provided the support network that encouraged the pursuit of real world academics as one aspiring student noted when she responded, "I've found people who don't judge me and who spur me on. My first year of college was a really rough adjustment, but I came out of it the president of a few clubs and with a 4.0 in the honors program, because I had people who cared for me and would kick me out of game if I was playing when I needed to work." (Respondent ID 389148489).

As a final note in response to this research question, it is significant that the focus of this question was subscriber purposes and benefits. As a result this question dealt only with the benefits and motivations behind respondent gaming behavior. While computer gaming and online gaming specifically has received a significant amount of press coverage in recent years, the bulk of that research and coverage has been negative and dealt with the limited behavior of a specific subgroup within the greater MMOG community. Further, much of that material has been based upon inaccurate misrepresentations of the MMOG gaming community as a whole, a point noted by Griffiths, Davies & Chappell when they reported that, "Over 60% of players were older than 19 years. The data provide clear evidence that the game clientele is very much an adult profile and suggest a different picture to the stereotypical image of an adolescent online gamer. The stereotype of the typical online player being a socially withdrawn young male with limited sex role identity appears to be misplaced" (2003, p. 1). As such it was deemed significant to focus on understanding the MMOG community as a whole to foster a more realistic and accurate appreciation of the MMOG/respondent community.

Research Question 3: How do subscribers perceive their online and face-to-face interactions?

Building upon the analysis of RQ1 and RQ2 the goal of RQ3 was to establish respondents' belief systems and orientation. One set of responses showed divergent schools of thought. One group of respondents reported that their online interactions were an extension of their real world, face-to-face interactions. Alternatively, the second group perceived their online interactions as completely independent of their face-to-face interactions. These differences in behavioral perception are significant because they help explain behavioral differences that can be observed in all gaming communities. The second school of thought's responses did not directly respond to the issue of accountability, but instead favored differences in social presence and pressures.

Members of the first school of thought that subscribed to the belief that their online interactions were subject to the same rules as their face-to-face interactions typically reported minimal changes in their behavior and a direct carry over of their morals and core behaviors. The following are examples of respondent's comments about how their behavior differs in an online environment. "I am a bit more shy in the real world, but my values and beliefs do not change" (Respondent ID 387955262). Another individual noted that, "It really doesn't, I tend to be polite" (Respondent ID 388016783), while still a third stated that their behavior did not and that they were, "...pretty true to my real personality and tend to hang around in game with people that have the same characteristics" (Respondent ID 388836429). In each of these instances, as with many of the others; respondents typically associated politeness and honest behavior with the view that online actions are an extension of face-to-face interactions and as such that the same

rules apply, regardless of the degree of accountability or enforcement present. The point made poignantly by one respondent who noted, “No, I'm a firm believer in the golden rule, even online” (Respondent ID 388993501).

On the opposite end of the spectrum was a large group of respondents that viewed online behavior as significantly different and detached from face-to-face interactions. The following responses offer insights into these individual’s perspectives. One of the respondents noted that, “Although I don't like to admit it, I tend to change in an online environment. I feel a slight invincibility and tend to go farther than I would in a face-to-face exchange” (Respondent ID 388098409). This sentiment was echoed by another who reported that, “There's no accountability so you can do what you want without thought of the reactions” (Respondent ID 388854160). Others were more direct, stating, “yes, I have to act nice irl [sic]” (Respondent ID 389340204). Others noting that, “Yes, I am more confrontational I am also more 'brave' to state things.” (Respondent ID 388998091) A common thread in these responses and the others that they represent was a feeling of empowerment that stemmed from the lack of the accountability the internet provides. Unlike the empowerment described in the following section, however, this focus revolved around avoidance of accountability and liberation of aggressive/compulsive action.

The second range of responses dealt with presence and confidence provided in an online setting as opposed to accountability and morality, as previously discussed. While many of these individuals reported a feeling of empowerment due to the lack of face-to-face interaction, that empowerment came in the ability to be more expressive and social. Helping them overcome various barriers such as shyness, a passive personality,

introverted behavior or even, as the following respondent noted, physical handicaps, “I personally am profoundly deaf - most MMOS use text chat thus it make conversing and socializing easier than voice” (Respondent ID 390089891). This response not only illustrates an incredible opportunity for an individual facing a physical handicap to reach out and communicate on a regular basis, but this use may be generalized for those who may face obstacles or confidence issues as a result of physical disabilities.

On a more common level, respondents noted that their online behavior and communication patterns differed from their face-to-face interactions. The following is one example, “I'm rather shy and don't have any friends where I'm currently living. Online gaming has given me a way to work with people and even make friends in a way that's a little more comfortable for me” the respondent later noted that she was, “…battling a pretty severe case of post-partum depression, and online gaming is giving me just a way to stay connected, to stay 'real' if that makes any sense. Also, as I am a guild leader, I'm getting some leadership experience” (Respondent ID 387983162). Through the MMOG community this individual is able to reach out to other individuals and foster friendships which would be significantly more difficult to build outside of the game. Further, she has taken on the responsibility and social pressures of guild leadership, which requires constant social interaction and decision making with an entire gaming sub-community. Another respondent noted that, “I prefer online interaction over in-person because personally, I'm rather shy. It's much easier to put together my thoughts and feel comfortable chatting or even talking with others remotely” (Respondent ID 388072052). Again, the lack of face-to-face interaction provided a buffer that allowed this respondent to engage socially in a comfortable more relaxed fashion. For these

individuals the MMOG environment and Computer Mediated Communication in general allowed for increased expression and interaction which supplemented their face-to-face interactions. The result is an opportunity for these individuals to explore facets of themselves that ordinarily would not be exposed.

Research Question 4: Have online relations given way to more immediate or face-to-face interactions?

In response to the free answer component of the questionnaire many individuals expressed either having met in game acquaintances outside of the game or a willingness to do so if the situation was right. While upon cursory review it might seem odd that a large number of respondents would be ready and willing to meet individuals they met through a game in a face-to-face environment. However, respondents noted the reasons for this openness; these were individuals that they had worked closely with and talked to on a daily basis and represented online friendships and relationships that in some cases had been in place for years.

In the analysis of RQ2 information was provided that reflected the significant number of respondents who reported having met their current romantic partner/spouse through a MMOG. Building upon that the following discusses online relationships that have given way to non romantic face-to-face interaction. Respondents noted that this interaction occurred in wide variety of different ways; in some instances respondents noted attending guild/gaming get together which brought together groups of online acquaintances all at once. Others reported facilitating a meeting after discovering other gamers online that lived in geographically similar locations, while still others noted having met gaming contacts during business or recreational travel.

Depending on the nature, seriousness and demographics of a guild it is not unheard of for guild members to set up guild gatherings. These gathers offer the opportunity for those guild members who are willing and able to attend to gather once or twice a year in a central geographic location to meet and socialize. While not a regular occurrence, these get togethers serve as exciting opportunities for individuals to gather to not only meet outside of the game in a safe, supportive atmosphere, but also an opportunity to network and cement the friendships they have made in game.

When asked about willingness to meet online gaming contacts in person one respondent noted, “I have met several people from ingame. My EQ guild still gathers regularly in Vegas for a weekend” (Respondent ID 388822539). Another respondent also noted attending guild gatherings, interestingly one of which was also in Las Vegas, “yes, we had a guild meet in Vegas and a 'lan' party and another guildmates house” (Respondent ID 389019542). A third offered the following response, “On occasions I've got together at 'guild' parties and met some of the folks I've played on-line with. Even had a few on-line folks join my face-to-face gaming group for a while” (Respondent ID 389362468) which was particularly relevant in its ability to show that these individuals are gathering for guild get togethers as well as regular face-to-face meetings which foster regular real world friendships.

One respondent even noted that while he would occasionally attend platonic real world guild gatherings the bulk of his efforts were spent pursuing romantic relationships and meeting women that he had met through his online gaming experience (Respondent ID 389391469). Others commented upon the lasting nature of the friendships they had made with individuals they had met online, “I travelled to another state for a scheduled

weekend get-together with members of a former guild. We had a weekend of planned events and a party. It was a lot of fun and it cemented the friendships we'd made. I've since left that guild and moved to another server, but I still stay in touch with those people I met in person. I seek to meet in-game contacts outside the game because these truly are friendships to me, and visiting friends is par for the course" (Respondent ID 389570350).

In addition to those who reported meeting online gaming contacts at guild gatherings, a large number of individuals reported meeting guild members and/or community members after discovering that they lived near each other. While the extent to which individuals were willing to travel varied some reported limiting the amount of effort they would expend to individuals living in the same city or county while others were willing to travel significant further. Typically these respondents noted normal social activity when they met their online contacts. The following is one such example, "I consider many of my old guildmates from EQ to be friends and have met several on several occassions over the years for drinks and barbaques" (Respondent ID 389213291). For this respondent and others like him the relationships established in game have become every bit as real as those made in normal face-to-face environments. Another reflected her willingness to meet online acquaintances and geographical limitations when he noted, "I have met a few of my online gaming friends in real life (if they lived in the same state as me). It's fun to meet people you've spent hours, weeks, months or more playing with online" (Respondent ID 389550685). Others noted that their gaming experience has helped them professionally, the following notes several of these advantages, "I've met coworkers who also play WoW, and it gives us an instant rapport

and something in common to talk about. I've used my contacts in-game to help me learn about job opportunities and asked questions of them about where they live and work since I'm looking to relocate. I've planned vacations to include visits with in-game contacts, as well" (Respondent ID 389570350). While these responses reflect an openness and willingness to extend online relationships into the real world it is also significant because many of these respondents are female and potentially face added security risks when making face-to-face contact for the first time with individuals they met online.

The third common theme in responses was a willingness and in some cases eagerness to meet gaming contacts while traveling. These respondents were not only eager to meet the friends and colleagues they had gamed with online, but also noted added benefits. The different types of agendas noted by respondents support Walther and Burgoon's (1992) findings which found that, "the fixed, impersonal qualities imputed to CMC may not be inherent to the medium but strictly bounded to certain specifiable conditions and kinds of partners" (p. 3). This would suggest that the extent and willingness to interact depends on the nature of the individuals CMC. Several individuals reported visiting online contacts to interview for jobs, others met online gaming contacts during stopovers in cities they were unfamiliar with, still others simply reported enjoying the opportunity to meet and socialize with their friends and some even noted that their meetings were pure business.

When prompted about willingness to meet online gaming contacts one individual responded, "No except for business interactions" (Respondent ID 389407454) others offered equally pragmatic but more open responses, "I've met a few. i don't make a point

to travel across the country to meet guild members or anything. If I am out on business where one lives near by I try to make time for a lunch or something" (Respondent ID 388858628). Another noted an interesting instance where both groups met up when they discovered they would be traveling in the same area, "I have met a few in the past, and even recently on a trip in which I was in the same city by chance as some online friends" (Respondent ID 388072052). While one noted future plans to meet face-to-face when travel permitted, "I've met a handful of people. One of which has become a very close friend. I plan on visiting the east coast for a family gathering soon and I've set aside one afternoon to meet some folks in the area from the WoW guild I'm in" (Respondent ID 388853269) another noted one of the advantages of meeting online gaming contacts, "I have met a few of my online friends. The biggest kick is seeing what they look like compared to what they are in my mind" (Respondent ID 389396268).

With the creation and adoption of the World Wide Web the ability to exchange and share information changed the way the world operated, expanding users available knowledge bases and simultaneously connecting them to millions of people world wide. These responses and the research that they represent indicate the constantly evolving nature of internet culture and offer insights into the international community's future as time moves forward and technology advances. Building upon the backbone of the internet, these respondents have taken the next step, not only meeting and communicating with individuals from other parts of the world but actually traveling to and interacting with those individuals in multiple worlds.

Discussion

The world has changed significantly in the last 50 years. As technology has advanced it has led to amazing changes in the way the world operates, defines and interacts with itself. As humanity moves forward, the average individual is presented with a confusing reality. The result is a synergy between nearly endless knowledge and technology that has granted near complete access to the world as a whole.

With the invention and widespread adoption of e-mail and the internet regular, widespread communication became an affordable option. As e-mail technology was expanded upon it played an ever increasing role in inspiring the invention of forums, blogs, newsgroups and social networking sites. The research and topics covered in this paper offer insights into what may be the next logical step in that progression and offer further insights into the relationship between CMC and face-to-face interaction. More specifically the data throughout this paper offers support for research indicating that despite the reduced bandwidth between CMC and face-to-face interactions CMC can potentially be every bit as personal as face-to-face interaction (Walther, 1996, p.2). A step long predicted by science fiction writers and theorists who have explored the concept of fully immersive worlds and environments.

The modern massively multiplayer online game may potentially be the start of a completely new technological and cultural revolution. A revolution inspired by and originally developed as a game but with real world applications. Consider an internet based virtual world in which international business meetings can be held in real time in a media rich environment that has built-in interactive media that can be created and displayed by the users in real time. Online shopping that not only allows you to see

photos of the product, but also provides three dimensional interactive mockups as well? Imagine a digital world which has a diminished perception of race, culture and sex which allows it to focus instead on the benefits and power of cooperation and enterprise and yet still provides methods for the presentation and display of those personal attributes when needed.

While still in its infancy, the MMOG world continues to expand and grow. With every improvement in technology, the basic framework that makes and defines MMOGs becomes more complex and powerful. That data collected for this paper is significant in that it reflects a growing shift in the way culture understands the MMOG community and the nature of the interaction that occurs within that community. A shift which is representative of modern CMC research, which has shown that relationships established through CMC may be every bit as rewarding as face-to-face relationships (Walther, 1992). The reality is that MMOGs reflect a leading edge of technology. That leading edge consists in large part of powerful mediated technology that facilitates communication and community on an incredible level. A mediated technology that not only brings people together and fosters communication and cooperation, but which also entertains, educates, and offers the opportunity for profit.

Due to the constant increases in messaging technology, the levels at which gamers are engaged in local and global contexts are constantly increasing. As they communicate through in game CMC technology and supplement that technology with voice communication software, forums and powerful chat software the limitations to interpersonal communication become less and less notable (Walther & Burgoon, 1992). Further, as noted by Walther (1996) CMC can serve as a major aid when facilitating large

scale group activities. These increases in group productivity stem from reductions in interpersonal distractions and offer the possibility of highly effective, computer-mediated workplaces & conferences (p. 4). The cumulative result of each of these CMC factors, combined with current increases in technology and the insights provided by respondent's free answer responses depicts a drastically different modern environment than previously believed. This information offers exciting possibilities for the evolution of MMOG communities and their impact on American culture as a whole while offering surprising insights into the direction that CMC may be moving in.

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Appendix A

1. What is your current age?	Response Percent	Response Total
13-17	4.50%	13
18-22	15.50%	45
23-27	**17.20%**	**50**
28-32	16.60%	48
32-35	**17.20%**	**50**
36-39	13.80%	40
40-45	9.30%	27
Over 50	5.90%	17
	Total Respondents	**290**
	(skipped this question)	**0**

2. What is your sex?	Response Percent	Response Total
Male	**80.70%**	**234**
Female	19.30%	56
	Total Respondents	**290**
	(skipped this question)	**0**

3. Where do you live?	Response Percent	Response Total
The United States of America	**80.70%**	**234**
Other (please specify)	19.30%	56
	Total Respondents	**290**
	(skipped this question)	**0**

4. What is your native language?	Response Percent	Response Total
English	**93.10%**	**270**
Other (please specify)	6.90%	20
	Total Respondents	**290**
	(skipped this question)	**0**

5. What is your current profession?	Response Percent	Response Total
Student	21%	61
Education (non-student)	2.80%	8
Military	4.50%	13
Government (civil service) field	3.40%	10
Banking	1.40%	4
Finance	4.10%	12
Computers / IT	**25.20%**	**73**
Marketing	1.40%	4
Retail / sales	4.10%	12
Service	5.50%	16
Unemployed	7.60%	22
Other (please specify)	19%	55
Total Respondents		**290**
(skipped this question)		**0**

6. What do you use the internet for?	Response Percent	Response Total
Banking	63.10%	183
Homework	30%	87
Research	78.30%	227
Publishing (blogs etc.)	22.80%	66
Entertainment (Youtube etc.)	80.70%	234
E-commerce	40%	116
E-mail	90.30%	262
Gaming	**97.60%**	**283**
Instant messaging	53.10%	154
News	79%	229
Social networking sites (myspace etc.)	32.80%	95
File sharing/downloading	55.20%	160
Other (please specify)	7.60%	22
Total Respondents		**290**
(skipped this question)		**0**

7. How much time do you spend on the internet in an average 7 day week?	Response Percent	Response Total
0-5 hours	0.70%	2
6-10 hours	1.50%	4
11-15 hours	2.20%	6
16-20 hours	8.50%	23
21-25 hours	11.50%	31
26-30 hours	13%	35
31-35 hours	10.40%	28
36-40 hours	8.90%	24
40 or more hours;	**43.30%**	**117**
	Total Respondents	**270**
	(skipped this question)	**20**

8. How much do you spend in-game in a given 7 day week?	Response Percent	Response Total
0-5 hours	7.80%	21
6-10 hours	11.50%	31
11-15 hours	14.10%	38
16-20 hours	**15.90%**	**43**
21-25 hours	15.20%	41
26-30 hours	14.10%	38
31-35 hours	4.80%	13
36-40 hours	3%	8
40 or more hours;	13.70%	37
	Total Respondents	**270**
	(skipped this question)	**20**

9. Please select which of the following you connect to the internet from:	Response Percent	Response Total
Cyber-café	2.20%	6
Home	**98.90%**	**267**
Office / work	50.70%	137
LAN Center	2.60%	7
Library	8.10%	22
Other (please specify)	5.20%	14
	Total Respondents	**270**
	(skipped this question)	**20**

10. Which of the following do you use to connect to the internet?	Response Percent	Response Total
Dial up	2.20%	6
Broadband	**96.30%**	**258**
Satellite	1.50%	4
Total Respondents		**268**
(skipped this question)		**22**

11. What speed is your connection?	Response Percent	Response Total
Cable	**62.60%**	**169**
DSL	32.60%	88
56k	0.40%	1
Satellite	1.50%	4
Other (please specify)	3%	8
Total Respondents		**270**
(skipped this question)		**20**

12. How much did you pay for your system?	Response Percent	Response Total
$100-$500	2.60%	7
$501-$1000	**27.80%**	**75**
$1001-$1500	24.10%	65
$1500-$2000	18.50%	50
$2000-$2500	9.30%	25
$2500-$3000	5.20%	14
$3000 or more	9.60%	26
The system was purchased used	3%	8
Total Respondents		**270**
(skipped this question)		**20**

13. How much have you spent (in USD) on upgrades/modifications in the last 3 years?	Response Percent	Response Total
$0-100	22.40%	60
$100-200	15.30%	41
$200-300	18.30%	49
$300-400	5.20%	14
$400+	**38.80%**	**104**
Total Respondents		**268**
(skipped this question)		**22**

14. How old is your primary system?	Response Percent	Response Total
1-3 months	12.20%	33
4-7 months	15.60%	42
8-12 months	17.40%	47
13-15 months	10.70%	29
16-20 months	11.90%	32
21-24 months	9.60%	26
more than 2 years	**22.60%**	**61**
	Total Respondents	**270**
	(skipped this question)	**20**

15. How many online games have you played?	Response Percent	Response Total
0-5	**50%**	**135**
6-10	25.90%	70
11-15	10.70%	29
16-20	0.40%	1
20+	13%	35
	Total Respondents	**270**
	(skipped this question)	**20**

16. Please select the Massively Multiplayer Online games you have played:	Response Percent	Response Total
World of Warcraft	65.20%	176
Lineage	2.60%	7
Lineage II	13.70%	37
Runescape	11.50%	31
Final Fantasy XI	13.30%	36
Everquest	**77%**	**208**
Everquest II	50%	135
Star Wars Galaxies	27.80%	75
City of Heroes	26.30%	71
Ultima Online	14.10%	38
Eve Online	18.50%	50
Dark Age of Camelot	29.30%	79
Dungeons and Dragons Online	22.60%	61
SecondLife	10.40%	28
Other (please specify)	35.60%	96
	Total Respondents	**270**
	(skipped this question)	**20**

17. Please select the non-massively multiplayer online games you have played:	Response Percent	Response Total
Half Life	33.70%	91
Half Life 2	28.90%	78
Battlefield 2	21.90%	59
Battlefield 2142	11.50%	31
Wolfenstein: Enemy Territory	13%	35
Unreal Tournament 2004	28.50%	77
Unreal Tournament	28.50%	77
Call of Duty	22.60%	61
Call of Duty 2	20.70%	56
Americas Army: Special Forces	14.40%	39
Quake 3: Arena	22.20%	60
Neverwinter Nights	38.10%	103
Halo: Combat Evolved	22.20%	60
Medal of Honor Allied Assault	14.80%	40
Soldier of Fortune 2	7.40%	20
Battlefield 1942	26.30%	71
Medal of Honor: Allied Assault Spearhead	8.90%	24
Other (please specify)	**42.20%**	**114**
	Total Respondents	**270**
	(skipped this question)	**20**

18. Why do you engage in online gaming & what are the benefits you receive?	
Total Respondents	158
(skipped this question)	132
19. How do you see it (online gaming) different than face-to-face exchanges (gaming or otherwise)?	
Total Respondents	154
(skipped this question)	136
20. Does your behavior differ when you engage in online gaming vs. face-to-face exchanges? If yes how?	
Total Respondents	157
(skipped this question)	133
21. Have you sought or do you seek out face to face contact with your online gaming contacts?	
Total Respondents	159
(skipped this question)	131
22. If applicable - what are some examples of how your online gaming experience has helped you in the real world?	
Total Respondents	132
(skipped this question)	158

[i] mIRC Is a popular, powerful, chat program that allows access to the Internet Relay Chat (IRC) chat network, which is an extensive, international community.
[ii] Ventrilo is a surround sound capable advanced voice over IP (VoIP) program that has been designed to use limited system resources and still allow for large conference call style conversations. The software's primary use currently is to facilitate team communication in online gaming.
[iii] TeamSpeak, like Ventrilo is an advanced VoIP program that allows for international internet passed conference calls.
[iv] Each of these programs is a variation upon the basic forum software. ezBoard was one of the first free, comprehensive forum offerings that also provided hosting. Due to intrusive ads and the introduction of phpBB and Invision Power Boards it has lost the majority of its market share. Invision Power Boards started out as free software and was embraced by the game industry but has since eliminated it's free products and targeted businesses, phasing out the majority of its gaming oriented users. phpBB is an alternative free, power, open source forum offering which is currently used by the majority of the gaming community.
[v] Friendster, Myspace, and Facebook are social networking websites.
[vi] The questionair was posted on the following forums. Note that the links are to the forums themselves, not the individual forum thread. This was done for consistency since some of the thread links are no longer active.

1. http://forums.tentonhammer.com/
2. http://forums.worldofwarcraft.com/
3. http://www.allakhazam.com/forum.html?
4. http://forums.station.sony.com/eq/
5. http://forums.station.sony.com/eq2/
6. http://www.thelegionoflight.net/FIPB/index.eqphp
7. http://www.thelegionoflight.net/FIPB/index.eq2php
8. http://www.vanguardspheres.com/forums
9. http://www.sluniverse.com/forums/
10. http://www.silkyvenom.com/forums/
11. http://prexus81531.yuku.com/forum/
12. http://forums.worldofwar.net/
13. http://forums.worldofwar.net/ (2nd posting)
14. http://camelot.allakhazam.com/forum.html?
15. http://forums.station.sony.com/eq