Ideology and interaction in Internet action video games

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IDEOLOGY AND INTERACTION IN INTERNET ACTION VIDEO GAMES

by

Marshall David Smith

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ABSTRACT

Ideology and Interaction in Internet Action
Video Games

by

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This thesis is an analysis of how the play mechanics of the Return to Castle Wolfenstein videogame influence player cooperation and competition during play as well as an analysis of player chat as indication of cooperation and competition. While the premise of the game is competition the play mechanics of the game were found to induce intricate and extensive cooperation among players. In this study, player communication was primarily focused on achieving game goals, however there was also communication for cooperative efforts. The play mechanics of the game significantly influences the experience of players. Further research must be conducted to refine methods of analyzing play mechanics and to facilitate comparison among video games and between video games and other similar computer-modeled environments.
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CHAPTER 1

INTRODUCTION

The relationship between technological advances and the social realm is a subject of significant interest. Opinion is divided over whether new technology is the impetus for social change or if social change creates an environment that fosters technological change. The question of initial motivating force is particularly relevant in the area of transportation and communication. Technological and social characteristics are not static, and neither are the interconnections between these two areas. For this reason, final conclusions regarding these subjects are ephemeral or limited in scope.

In the past thirty years, science and manufacturing have reached a stage where technological advances occur in a greatly compressed time period when compared to prior human history. These advances are also made available more rapidly to a greater portion of the population of industrialized countries. Regardless of whether the technologies or social networks are the driving forces of change, a relationship between the two exists. Cultural scholars have attempted to develop ways to understand these relationships. Marshall McLuhan (1994) has described numerous technologies and the inherent ideologies that are associated with them. Neil Postman (1985) has written about how individual
perspectives were altered as the dominance of text was replaced by the
dominance of television images. Stuart Ewen (1998, 2001) and Judith Williamson
(1992) have discussed the power of the image and the harnessing of that power
for public relations and advertising in advanced capitalism. Guy Debord (1994)
theorizes about the overall influence of images, moving and still, that are crafted
for impact, and ubiquitously displayed, until the entire social landscape becomes
a society of the spectacle. These are only a few among many media scholars
attempting to understand and interpret the influences of technology in their
everyday lives (Gauntlett 2000; Bell 2001; Haythornthwaite and Wellman 2002).

More recently, Mark J. P. Wolf (2002) and Steven Poole (2000) have been
among the first to study the technological medium of the videogame. They define
this technology as a completely different form of media for the presentation of
information. They also analyze videogames as a unique form rather than an
extension of television or cinema, but at the same time draw upon the work of
scholars of those media to inform their own analyses. Being a life-long player of
videogames, as well as an aspiring cultural scholar, I too have opted to look
further into the medium of the videogame in order to begin to understand more
about this emerging feature of the cultural landscape.

Videogames first became available for public consumption in 1971 (Herz
1997; Poole 2000). Since then they have increased in popularity as well as
complexity. Currently, in the United States, one would be hard pressed to find a
person who is not aware of their existence. Although it is very difficult to
determine the real extent of how widespread the playing of videogames is, they
are quickly nearing ubiquity. Videogames are available as home computer systems exclusively devoted to this purpose, on similar portable miniaturized systems, in public arcades, on personal computers, and on cellular telephones. There are dozens of monthly magazines devoted to various types of games and a new television channel has recently been launched devoted exclusively to videogames. In short, videogames are now a huge commercial success as well as a significant part of the cultural environment. For those who do play videogames, they are an agent of socialization. Unlike radio, film, or television that will continue regardless of the audience, videogames demand the involvement of the player.

Videogames are also an activity that can be played completely alone, together with other people in person, or, together with other people over the Internet. The newest incarnation of the medium is videogames involving multiple players connected over the Internet. These videogames are a medium of computer mediated communication, and for this reason, are an activity with a unique combination of individual and social characteristics. The opportunity to play against other people, rather than opponents controlled by a computer program, is very appealing to the people who already play these games and this option may become the standard for many games. Yet very little research about the form and content of these games has been conducted.

I selected internet videogames as the focus of this thesis in large part because they are an activity that is social only through mediated communication. Players remain physically isolated in front of their personal computers and
connect through the Internet to the collective environment where interaction takes place. In contrast to the beginning situation where the social component of videogame playing was among people in close physical proximity who played together, internet play occurs within the context of the videogame and involves people who are geographically separated. Just as email, instant messaging, and mobile text messaging changed the way people communicate, form and maintain social relationships and even how we think (Lee 1996; Bell 2001; Boneva and Kraut 2002; Copher, Kanfer, and Walker 2002; Rheingold 2002), the widespread participation in multi-player videogames may have a significant societal impact. According to Castronova (2001), “virtual worlds may soon become the primary venue for all online activity” (p. 1). The virtual worlds to which he is referring include the worlds of action games as well as the role-playing/fantasy game worlds which are the focus of his work. Videogames also reflect the changing technological and social components of work and recreational activities. The simulated environments in combat internet videogames (but increasingly adapted to other types of games and other areas of computer mediated interaction) are a new forum for computer-mediated communication that is worthy of sociological inquiry.

Previous research on email, instant messaging, and mobile text messaging, has almost exclusively addressed only text-based communication media (Silver 2000). Each of these different forms of communication has influenced the interactions that can, and in practice do, take place via the corresponding medium. Email introduced a level of formality for interaction more casual than a
written letter yet more formal than a telephone call (Turkle 1984). Mobile text messaging has changed notions of participation and inclusion among teenage friendship circles as well as political activist strategies (Rheingold 2000). Researchers have explored streaming video (webcam) interactions (Waskul 1996; Snyder 2000), that made possible previously unrealized situations for intimacy without proximity. My research continues this tradition of exploring the various opportunities and constraints that exist within the plethora of new communication venues and via new combinations of communication technologies. The current internet combat videogames stand as the precedent for other virtual realms that are beginning to use these design and interface conventions (McDonough 1999; Castronova 2001).

Just as ideology may be overtly stated or cleverly concealed in films and television programs (Rushkoff 1994) so too can videogames conceal or broadcast ideology. James Wagner Au writes that “socially minded films and television programs can only dramatize their politics, but we now have a medium where you can interact with them, as an engaged participant. Indeed, the revolution will not be televised – instead, it’ll come with a game pad” (2002). It is easier to identify doctrine within videogames when it is part of the storyline of the game. However, the videogame medium is harnessed when the interactions of players within videogames are framed by principles of the game. It is when players engage with the game as a program that the very program itself may be conveying latent meanings and messages.
Certain rules are embedded – sometimes consciously, sometimes not – in video games. What are these rules? The question may become a refrain, at least for perceptive parents and teachers, because games can communicate ideas not merely through exposition but through the experience of playing them (Au 2002).

The embedded rules and limitations of games, play mechanics, are discovered by playing. Just as it is sociologically important to analyze the form and content of other media, it is necessary to begin to develop similar strategies for videogames. This thesis is my attempt to take a step in that direction. I will attempt to decode the underlying structural ideological messages contained in this exemplar of the multi-player internet action videogame genre. I expect to find that the common perception that this type of game is nothing more than mindless killing is limited and inaccurate.
CHAPTER 2

LITERATURE REVIEW

Videogames are a unique phenomenon. They are games to be played as well as artistic creations. They are played in public spaces such as arcades and cybercafés as well as in private spaces such as homes and offices. Videogames serve as a focal point for controversies regarding technology, violent content, addictive appeal, and youth culture. In this chapter I provide a brief history of videogames as well as an overview of the prominent issues related to videogames.

Game History

Play, Games, and Art

According to Brown (1991), play is one of only a few cultural universals. In his classic work on play Johan Huizinga (1970) describes it as a "a totality that we must try to understand and evaluate" (p. 3). Games are a subset of play.

A game is an interactive structure that requires players to struggle toward a goal. If there's no interaction, it isn't a game; it's a puzzle. If there's no

^ Other posited cultural universals include dance, death ceremonies, creation myths, social stratification, and methods of social control.

1 Other posited cultural universals include dance, death ceremonies, creation myths, social stratification, and methods of social control.
goal, then the players have no reason to choose one option over another, to undertake one task instead of something else; there’s no structure (Costikyan 2003:19).

Games are specific instances of play organized or guided by rules that provide a structure, however evanescent. Although play is not limited to humans, games are a uniquely human phenomenon.

Some art may be thought of as another subset of play, one where the activity of play is focused on the production of an artifact or a performance. Toys have been considered symbols situated at this intersection of play and art. Toys are, or can be viewed as, artistic artifacts specifically produced for play. Barthes (1972) argues that toys are pregnant with meaning. “[T]he child can only identify himself as owner, as user, never as creator; he does not invent the world, he uses it: they are, prepared for him, actions without adventure, without wonder, without joy” (Barthes 1972:55). For Barthes (1972) the toy itself focuses the possibilities of any play that may incorporate it. In short, toys socialize children.

The recreational objects of adults are not conventionally referred to as toys. Nonetheless, such objects have specific expected uses and thus have a socializing influence on the adults who use them. Any artifact that people of any age spend a considerable time interacting with will have some kind of an impact on those people. As with any phenomenon, vulnerable populations such as children are arguably more susceptible to influence. However, these influences are complex and difficult to isolate and analyze.
Barthes' (1972) argument is unnecessarily restricted to objects culturally defined as toys and the users of these objects are unnecessarily limited to children. If just toys are agents of socialization what then of all the objects that become toys in the eyes of children? If limited to children, what are we to conclude about the myriad objects that adults utilize for recreation? Videogames complicate Barthes' (1972) assertion that toys are prepared actions without adventure.

Videogames are a new challenge to previous ideas of what toys are and what might be the impacts of playing. Videogames blur traditional notions of play and games as well as defy previous methods of categorization (Frasca 2003:221). As such, videogames instill some of Barthes' (1972) claimed lack of wonder and joy in their players as they sit in rapt awe of what takes place on screen. Since player input is required for videogames, it contributes to the creation of the experience.

Art can be indicative of aspects of the culture and society in which it was created and so too may the games of a culture reflect other aspects of it.

...[A] man or society without games is one sunk in the zombie trance of the automaton. ...The games of a people reveal a great deal about them. ... [Games] are a sort of artificial paradise like Disneyland or some Utopian vision by which we interpret and complete the meaning of our daily lives (McLuhan 1994:238).
For Gallois there is no distinct separation between play and life, but "the former will reflect the latter" (1978:214). Play permeates human life and is an integral part of it. The activities that are considered play in a particular time and place are a reflection of the surrounding cultural context.

At first thought play may elicit thoughts of carefree fun and joy; however, play can be very serious given the context of the play and the importance that the participants may attach to the outcomes. Huizinga (1970) argues that it is possible for play to be a means unto itself. Others have argued that play serves a variety of functions beyond fun (Gallois 1961; Fontana 1978). Some of the most common types of play are play as a means of socialization especially as preparation for adult life, symbolic forums for power struggles, and a means of establishing functional social hierarchies (Gallois 1961). Fontana explains, "the cultural conditions of a society lead individuals to pursue certain forms of play which become enmeshed in the culture" (1978:214). Play and games may serve integral functions in a society. Fontana (1978:214) then expands on Gallois' (1961) ideas to conclude that play and games can no longer be seen as a separate realm of everyday life. "[T]hey depend on the present culture of a society, or rather they are a reaction to it." There is a dynamic relationship between play and culture where each is shaped by and influences the other. Thus much may be revealed about a culture by investigating it's play and games. If children are playing a war scenario they must have some familiarity with war as a social situation, without some concept of conflict among people there would be no model for children to work from or even loosely adapt. In present day America
this seems difficult to imagine. Another example is playing ‘shopping’. Children of two hundred years ago who rarely if ever went to any kind of store would have no concept of shopping as a recreational activity.

As an important component of culture, play in general and games specifically are subject to sociological analysis.

We shall try to take play as the player himself takes it: in its primary significance. If we find that play is based on the manipulation of certain images, on a certain ‘imagination’ of reality (i.e. [reality’s] conversion into images), then our main concern will be to grasp the value and significance of these images and their ‘imagination’ (Huizinga 1970:4).

McLuhan (1994) presents a similar argument, “Games are popular art, collective, social reactions to the drive or action of any culture. Both games and technologies are counter-irritants or ways of adjusting to the stress of the specialized actions that occur in any social group” (italics in original p. 235). In sum, play is a component of culture that is dependent on the culture in which it occurs.

Social History of the Arcade

There is a much longer social history of arcades in the United States than just the videogame arcades that have waxed and waned since the late 1970s. J. C. Herz (1997) contributes a thorough social history of arcades in the United States in her book Joystick Nation: How Videogames Ate Our Quarters, Won Our
Hearts, and Rewired Our Minds. Herz (1997) describes the turn of the century arcades featuring coin-operated phonographs that played “cylinder recordings of speeches and popular songs through a listening tube” (p. 45). This arrangement confined the entertainment experience exclusively to the paying individual as opposed to jukeboxes in the 1950s where everyone heard the music paid for by the individual. Nasaw (1993) notes that in the first decade of the 20th century:

[Companies] found that by grouping several machines together in a downtown “parlor,” with full-time attendants to service the machines and make change, they could attract large numbers of customer from the streams of pedestrians who passed by ... To bolster their receipts, the parlor owners surrounded their graphophones and phonographs with other “automatic” amusement novelties (Pp. 126-7).

Figure 1. Photographs of Early Arcades.

Around the turn of the century audio recordings were replaced by kinetoscopes and mutoscopes that displayed individual short film loops (See Figure 1). As
movie theatres emerged and doomed these machines to obsolescence, an infrastructure of arcade parlors was left in place. These parlors had established the precedent of a new social gathering place.

The arcades were casual institutions that required no advance ticket, had no assigned seats, and, as importantly, required no cultural capital of their audiences. All viewers regardless of social background or educational level, had equal access to the ‘meaning’ of the images viewed through the peephole or on the larger screen. One didn’t even have to speak English to understand the story (Nasaw 1993:158).

This gathering place was one where a number of people gathered in one space and then individually enjoyed their amusement of choice. This begins the bizarre combination of amusements that combine isolation, social interaction, and the private and public spheres. Although separated by several decades, the early arcades, movie theatres, and jukeboxes, are all notable examples of the strange combinations of private and public experiences that are still relevant for videogames today. Moreover, due to the iconic nature of videogames, many are similarly accessible to people as amusement regardless of language fluency, social background, or education level.

Loftus and Loftus (1983) were among the first to note the social component of the videogame arcade. “[Video arcades] constitute the foundation of a subculture with its own norms, values, and patterns of communication” (Loftus and Loftus
1983:85-86). Herz (1997) argues that in the 1970s and early 1980s videogame arcades filled a similar social function as the malt shops and fast-food drive-in restaurants of the 1950s and 1960s. They were a distinct social gathering place primarily for teenagers. Loftus and Loftus (1983) argue there are key important differences. Fast-food drive-ins, where socializing was the primary focus, contrast with videogame arcades where the primary focus is to play the games while socializing is the secondary activity. Teenagers rarely went to fast-food drive-ins alone, again this is in contrast to videogame arcades where patrons could play without social interaction and without stigma for this solitude.

Herz (1997) also points out that this incarnation of arcades arose contemporaneously with the explosion of suburban shopping malls. The mall videogame arcade could serve as babysitter while parents shopped. In the early 1980s the financial success of videogames in malls resulted in their placement in all kinds of new locales including the ubiquitous gas station/convenience store. This phenomenon was left behind as home consoles began to dominate the market and groups of teenagers came to be considered more damaging to business than good for it.

Meanwhile mall videogame arcades, in response to problems of loitering and violence, adapted to become what are now called “family fun centers” such as Microsoft’s GameWorks. In this new incarnation of arcades videogames are only one option among various other recreational activities designed to encourage the participation of the entire family. There is usually constant security and restrictions that prohibit teenagers from coming alone.
Evolution of Videogames

The popularity of public videogame arcades and home videogame systems is cyclical. Arcade videogames and home videogames emerged at approximately the same time in the early 1970s and in the beginning were mutually reinforcing in terms of popularity. In 1976 General Instruments introduced a microchip processor that held the "guts of a home videogame system ... which cost manufacturers five bucks, [and] could be turned, with minimal effort, into a tennis/soccer/squash TV game console that sold for sixty dollars" (Herz 1997:34). This resulted in a flood of home videogame consoles. However, General Instruments apparently underestimated demand and left many manufacturers without the key component of their systems for the 1976 Christmas season. This essentially bankrupted every manufacturer except for Atari. This marked the crest of the first videogame wave.

Atari then innovatively applied the "razor blade" business model to videogames. One purchased the console (razor) and then was compelled to buy corresponding cartridge games (blades) exclusively for that console. Atari is recognized as revolutionizing home videogame consoles because of this marketing scheme rather than Magnavox, whose Odyssey system is technically the first home console videogame system. As other companies began to produce game cartridges for the Atari system this reinvigorated the videogame industry. The market was again flooded, this time with games for the Atari system, by numerous manufacturers. Rather than a short supply of manufacturing components, this time it was the poor design of games produced by companies
with no vested interest in maintaining the popularity of the system that led to another industry collapse. In 1983 the second wave of videogame successes crested and this time everyone went bankrupt including Atari (Cohen 1984).

In the early 1980s with the decline of the first wave of home systems, arcades took the more prominent position. In the mid-1980s Nintendo and Sega risked entering the home system market. Nintendo's variation on Atari's razor blade business model was to sell the console essentially as a "loss-leader". That is, the system was sold at a price below the cost of production, since that loss would be more than compensated by the revenue from sales of game cartridges. This business practice led to price-fixing lawsuits against Nintendo. Regardless of the losing outcome of the lawsuits, Nintendo had already achieved its goal of acquiring a dominant share of the market. Sega had dramatic losses and withdrew from the home system market until 1994 when it introduced the marginally successful Saturn system that was quickly overrun by Sony's PlayStation.

By the late 1990s videogames were established as an entertainment option with consistent appeal and new systems have been periodically introduced ever since. Sega re-entered the home console market again in 1999 with the Sega DreamCast. In the fall of 2000 Sony introduced the PlayStation 2, a home console system that also has the capability of playing audio CDs and DVDs. Microsoft and Nintendo followed in the fall of 2001 with new home consoles respectively called the Xbox and the GameCube. All three of these systems would eventually include networking capability allowing players to play with one
another via an Internet connection similar to computer multi-player games.

Nintendo continued with the portable game system market by introducing the GameBoy Advance in 2002. Also in 2002 cellular phones began to come with videogames installed, this greatly expanded the availability of portable videogames. Sony has announced the release of a portable version of the PlayStation 2 for late 2004. In various forms, videogames are now a prominent entertainment option throughout the United States and other countries.

As the technology evolved to the point where a single game required hours of play, the home system offered unique advantages over public arcade games which were more limited in scope. In addition, technological advances allowed home systems to faithfully reproduce the arcade games that repopularized videogames in the early 1990s. The videogames in family fun centers have shifted in response to be predominantly simulation systems that require more elaborate hardware than would be readily marketed for individual consumption. Examples include snowboarding and skateboarding simulations that include a mock board on which the player stands to interact with the game. Recently, the popularity of networked games has exploded. As a result, a new variation of the videogame arcade has appeared in more technologically advanced countries. Cybercafés devoted exclusively to networked videogame play, called bangs, are widespread in Korea, Japan, and many US cities.

**Videogame Genres**

As the videogame has matured as a medium, videogame genres have evolved together with respective associated defining characteristics. Racing
games involve players navigating some sort of vehicle propelled through a
course. The adventure or role-playing genre is comprised of games where the
protagonist controls a character throughout some sort of usually fantastic world
instigated by achieving various levels and types of objectives. There are sports
games. There are so-called “god games” in which the player controls a system of
dynamic processes often represented as a miniaturized world. The miniaturized
world is not necessarily a human civilization. The player could be manipulating
the construction of a city, an economy, a business, or even an anthill. The Sims
and the Tycoon series' of games are among the most recent and popular
variation of this theme. There are puzzle games thrust into the spotlight and
made a viable genre in 1988 with the introduction of the immensely popular
Tetris. There is a burgeoning genre of games I term somatic games. Introduced
with the all but forgotten Nintendo Action Pad these games have recently
regained popularity. Although all games require input from the player through
some type of physical device, somatic games require a much greater level of
physical involvement. Most notable are dance videogames. These consist of
elaborate consoles where players stand on a backlit plus-shaped colored pad
and must step on specific pads in precise coordination with arrows that appear
on-screen.

Combat games, or “shoot 'em ups”, are another prominent videogame genre.
From Computer Space as the first officially released arcade game in 1971 to
Doom 3 which is set to be released in fall of 2004, these games at base consist
of the player controlling an entity that shoots at other entities. In addition to being
the first arcade videogame, a variation of *Computer Space* was introduced that was the first to allow two players to compete against one another with the computer acting primarily as referee and scorekeeper. Combat games may also be distinguished by scale of player control. Players usually either control entire military forces and victories are determined internally by the computer according to probabilistic interactions or players control one component of the military campaign, such as one soldier or one tank, who either faces an impending onslaught alone or in cooperation with other players. With the introduction of *Rip-Off* in 1980, games allowed more than one player to work together cooperatively against machine controlled opponents. This rounds out the combat/cooperate game possibilities: player vs. machine; player vs. other player; player acting in cooperation with other player vs. machine; and players vs. other players and/or machine.

Combat first-person-shooters (FPS) initially began with one-on-one death matches due to limited networking technologies and processing power. A death match is essentially a virtual duel where two players compete to kill one another. Now most FPSs offer a middle range combat game experience. Each player controls one member of a military force, and via the internet or a local area network (LAN), enact prolonged simulated battles cooperating with the players on their team playing against players on the other team(s). *Return to Castle Wolfenstein (RtCW)* is one of the more popular of the multi-player FPS games. *RtCW* is a sequel to *Wolfenstein 3-D*, one of the first perspective games ever
produced and written almost ten years earlier by many of the same programmers as *Wolfenstein 3-D*.

*History of Sociological Videogame Research*

Early sociological research about videogames was sporadic. This may have been because videogames were thought to be a passing trend limited to a select group of young players. More generally, the categorization of videogames as merely games may have led researchers to dismiss the topic as superficial or trivial. There are also specific difficulties with researching videogames that may have contributed to the relative lack of formal sociological research. In contrast to traditional media, such as film or narrative fiction that are self-contained and consistent texts, videogames offer a vast range of content that is dependent on the input and progress of the player. As a result, one needs significantly more time to experience a videogame, especially the newer adventure games that can require literally hundreds of hours to play, in order to interact with even the majority of each videogame experience (Wolf 2001). Despite these difficulties a more considerable body of sociological research about videogames has begun to accumulate.

The publication of research specifically devoted to videogames very closely parallels the waves of videogame popularities as outlined by Herz (1997). After the first peak of videogame popularity in the late 1970s and early 1980s, a number of related books were published (Loftus and Loftus 1983; Cohen 1984; Greenfield 1984). The next wave of books followed the resurgence of videogames after Nintendo and Sega revived their popularity in the mid-1980s.
with the introduction of more powerful home console videogame systems (Provenzo 1991; Sheff 1993). With the exception of Herz’s book in 1997 it has only been very recently that a more substantial body of videogame-related research has begun to be published. This in turn coincides with the introduction of several home console systems in recent years: Sony’s PlayStation 2, Nintendo’s GameCube, and the Microsoft Xbox. Videogames for personal computers have also achieved a new level of popularity with graphics and controls that rival dedicated console systems as well as the capability of playing with other people over the internet. There is renewed sociological and cultural scholarly interest in videogames (Poole 2000; Berger 2002; Wolf 2002, 2003).

Some renewed interest is also due to the controversy surrounding the videogame play of the perpetrators of the 1999 Columbine High School killing spree in Littleton, Colorado. Much was reported about their custom version of the videogame Doom that they had altered to resemble their high school.

There is further supporting evidence that videogames have achieved a critical mass of research interest. Several texts have been published devoted to documenting the history of videogames (Burnham 2001; Kent 2001; Sellers 2001; Demaria and Wilson 2002). The appearance of David Kushner’s (2003) Masters of Doom: How Two Guys Created an Empire and Transformed Pop Culture is indicative of the medium’s maturation as specific creators are now regarded and praised as experts of game design similar to the Auteur conception of film directors. Programmers such as Eugene Jarvis, who developed Robotron 2084 and Defender among others, as well as Shigeru Miyamoto, creator of the

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Nintendo character Mario and a number of Nintendo’s most popular games, are acclaimed as masters of game design (Herz 1997; Poole 2000; Kent 2001).

The Academy of Interactive Arts and Sciences (A. I. A. S.) is modeled on the Academy of Motion Picture Arts and Sciences that is most well known for its Academy Awards for excellence in film. The A. I. A. S. is an organization comprised of members that are experienced professionals involved in the production and design of videogames. Its mission, according to its website is to promote and advance the entertainment software industry and to recognize the outstanding achievements in this field. It has inducted six videogame designers, at the rate of one per year, into their Hall of Fame since 1998 including Jarvis and Miyamoto.

Today videogames are among the most popular types of recreation among Americans. According to an industry source, the Entertainment Software Association (2002), an estimated fifty percent of people in the United States over the age of 6 played computer and video games in 2003. People who play often do so frequently and often do so for extended periods of time. Video game players are no longer just teenage, middle class, males. The average game player is 29 years old and 39% of game players are women. Although these statistics are produced by an industry sponsored association, it is hard to dispute the popularity of videogames given that Americans spent $9.4 billion dollars on videogames in 2002 (Hu 2002) slightly surpassing the $9.32 billion spent on movies (Isidore 2004).
Leisure, Labor, and Sport

There is a history of parallels between cultural leisure activities and the predominant types of labor in a society. Norbert Elias (Goudsblom and Mennell 1998) argues that there is a meaningful relationship between the development of sport in England in the 18th century and other contemporaneous long-term social processes. Specifically Elias identifies parallels between the emergence of sport and parliamentarization of government, both of which represented a general calming down of cycles of violence (Goudsblom and Mennell 1998:97). Elias (Goudsblom and Mennell 1998) claims that "As a first hypothesis, it does not seem unreasonable to assume that a transformation of the manner in which people used their spare time went hand-in-hand with a transformation in which they worked" (p. 98). Industrialization furthered the process by which a significant amount of leisure time was made available to a large number of people. Work and leisure are the two overwhelming spheres of industrial life in the 18th century as well as post-industrial life in the 21st century. In the case of 18th century England "industrialization and sportization were symptomatic of a deeper-lying transformation of European societies which demanded of their individual members greater regularity and differentiation of conduct" (Dunning and Elias 1986:98). Similarly, it is reasonable to assume that there is a relationship between the emergence of videogames as popular leisure and the contemporaneous changes in the social climate. There is little doubt that the social realm has changed significantly in the past thirty years.
The development and emergence of videogames exhibits parallels to recent social changes similar to those Elias describes in his discussion of 18th century English sport and industrialization. In the last several years these games have become possible due to technological advances. Technological advances, especially in the areas of communication and transportation, have contributed to significant changes in the social climate during the last several decades. It is unreasonable to dismiss this concurrent development as technological determinism without further research. My exploratory analysis is being made much closer to the time of the emergence of the phenomenon than Elias was to the 18th century and without the benefit of this additional hindsight conclusions will necessarily be more speculative.

The question remains if these games can be categorized as sport. Consider Elias’ (1998) definition:

Every sport – whatever else it may be – is an organized group activity centered on a contest between at least two parties. It requires physical exertion of some kind. It is fought out according to known rules, including, if physical force can be used at all, rules which define the permitted limits of violence (P. 101).

Work has become increasingly based on mental ability and decreasingly based on physical ability, especially in countries with more technological infrastructure such as the United States, a similar process is also apparent in the
recategorization of less physical recreation activities, such as cards, darts, billiards, as sports. The most prominent indication of the “sportification” of these activities is their inclusion in sports television coverage.

Videogames fit perfectly as a next phase in this progression of sports from the physical into the mental realm. The FPS multi-player action videogames of recent years are increasingly considered to be sport. Although different from the traditional physical determinants necessary for sports with longer histories there are definite physical components to these games. With videogames the physical determinant for winners are faster reaction times in units of microseconds rather than large physical size or strength. The feats of strength and agility are achieved by refined control of the simulation rather than the body.

Combat videogames in particular represent another stage in the evolution of the progressive rationalization of violence as play. Context for the transformation in recreational activity is provided by Andrea Fontana (1978). “No longer can we pit ourselves against the wild elements ... At this time sports replace the frontier as a new form of play to provide human beings with relief from the drabness of factory life and with new challenges to test one’s mettle” (Fontana 1978:216). Each new round of a videogame, especially those of the action genre, is a new opportunity to ‘test one’s mettle.’

The irony that highlights the hyper-rationalization is that the recreational activity of videogames is performed through physical situations and movements virtually identical to those in much of today’s work (both involve people seated at computers typing and using mouse pointing devices). Once again leisure activity
has evolved to imitate work. Further, Fontana (1978) shows that “Dis-play in sports today is taking the form of violence, and this is what people come to see” (p. 219) where dis-play is the “spectacular element of the game which has no direct bearing on the outcome but which dazzles the crowds” (sic p. 219). Once the videogame *Doom* standardized the first-person perspective and the conventions of play/control logistics (separating player-character body-movement to the keyboard and eye-movement to the mouse) the lauded difference in games focused more on the graphics and subtle differences in the “feel” of the game experience. The spectacle of competition that spectators used to travel to the stadium or arena to see is now what those spectators play in the simulated arena of videogames. The graphics are the spectacle and players delight in the gory details. Players are afforded the opportunity to tailor the effects and gore according to their own personal preferences.

This is consistent with the idea that videogame players are becoming athletes of our culture. When physical labor became so controlled in the factory work of industrializing England, sport reflected the significance of that control and effort. Now as labor has shifted so that mental effort is much more prized in countries in stages of advanced capitalism, such as the United States, Japan, and western European countries, the recreation has shifted similarly and these games have surged in popularity. There is now a league of professional videogame players called the Cyberathlete Professional League (http://www.thecpl.com) that is modeled after other professional sports leagues complete with tournaments, star players, corporate sponsors, and adoring fans (King 2003).
The evolution of the videogame medium has parallels to the evolution of motion pictures. Both are marked, if not driven by, advances in technology and methods of information presentation as well as the development of genre conventions. As motion pictures were initially limited to only black and white images without sound. Similarly, the first videogames had very primitive sound reproduction capabilities and utilized two color displays (one color and black). At the beginnings of narrative film, directors discovered and developed various cinematic techniques for conveying information not necessarily inherent in what was presented on screen. For example, by dissolving from the image of a person falling asleep into another scene the new scene is perceived to be the person's dreams. A number of technological advances were simultaneously incorporated into videogames during their first years of existence including innovations in video displays, audio engineering, and computer processing power. These advances have resulted in making possible new narrative devices coupled with new means of interaction. Much effort has been devoted to documenting the established conventions of cinematic narrative language (McCloud 1993; Braudy and Cohen 1999; McCloud 2000) but similar efforts have only just begun for videogames.

Much of the previous research into videogames has consisted of comparing and contrasting videogames to other media such as drama (Laurel 1991) or narrative expression (Murray 1997). Only in the last several years have
researchers begun advocating the videogame be considered a distinct art form, as well as an important cultural phenomenon, worthy of significant scholarly analysis (Poole 2000; Berger 2002; King 2002; Wolf 2002).

Frasca’s (2003) “Simulation versus Narrative: Introduction to Ludology,” is an outstanding effort to synthesize much of the previous research on games and apply it to videogames. He departs from the previous media comparisons and extends the introductory claims of videogames as a distinct art form by arguing that

unlike traditional media, video games are not just based on representation but on an alternative semiotical structure known as simulation. Even if simulation and narratives do share some common elements (characters, settings, and events) their mechanics are essentially different. More important, they also offer distinct rhetorical possibilities (Frasca 2003:222).

Representational media such as books or films are limited to the presentation of one fixed sequence of events. The designers of videogames present the elements of traditional narratives but with only the boundaries of possible sequences of events. Frasca (2003) draws the analogy of authors as wielders of executive power dealing with specific issues while simauthors (simulation authors) behave more like legislators: “they are the ones who craft laws” (p. 229). Simulation is dynamic and dependent on variable inputs while narration is static and only variable with regard to interpretation. “This model reacts to certain
stimuli (input data, pushing buttons, joystick movements), according to a set of conditions" (Frasca 2003:223). This is the fundamental reason that videogames as a medium require discovery of a catalogue of techniques separate from other media such as motion pictures. This distinction also introduces the difficulties present in attempting to analyze videogames. In order to discern the underlying structures and semiotics of a videogame requires multiple extensive experiences with the game and purposeful efforts on the part of the player to test the limits of what can and cannot be done.

Psychoanalytic Models Applied to Videogames

As with other newer media of communication facilitated by technological advancement, from the saxophone and jazz to the Internet and instant messaging, there has been much debate about the psychological impact and importance of videogames.

Tews (2001) offers an overview of the psychological theories that have been applied to videogame playing. First is the behavioral perspective based on the work of B.F. Skinner. Skinner researched human behaviors as the result of a system of positive and negative reinforcements that either encourage or discourage specific behaviors. Skinner found that very little randomly distributed positive reinforcement was enough to significantly encourage the repetition of a behavior. This model would assert that the appeal of videogames are the various symbolic incentives given to the player throughout the game such as points, extended game play time, new levels of play, etc. However, these types of rewards presuppose the appeal of videogame playing as a positive
reinforcement. For example, winning a slot machine is attached to an external positive reinforcement of monetary reward whereas videogame rewards are confined to the videogame realm. This raises the question of what exactly would reinforce repeated videogame playing. According to Tews (2001), another latent result is that, "[i]n the case of violent, aggressive, or anti-social games, we are also reinforced for aggressive, quick-thinking, and blood-thirsty behavior" (p. 173). Critics of behaviorism argue that although positive and negative reinforcement may encourage or discourage behaviors they cannot fully account for the full range of human behaviors. Likewise, in applying this model to videogames, because of the lack of reinforcements outside of the videogame universe, Skinnerian behaviorism cannot fully account for the appeal of videogames. Moreover, humans have agency that allows them the possibility to resist or ignore basic schedules of reinforce. In terms of videogames, reinforcements for actions within the system of a videogame would not necessarily transfer to real life actions.

Bandura's social learning theory posits that people learn from observing behavioral models that are then mimicked. In this model, videogames would serve as the model for behavior and those that include characters enacting violence serve as behavioral models for the violent behavior of the player. Tews (2001) finds both the behavioral model as well as the social learning theory model inadequate explanations for the enormous and widespread appeal of videogames.
Tews (2001) prefers a psychoanalytic Jungian analysis of videogames for explaining their appeal and ability to elicit emotional reactions. She proposes that videogames contain symbols representing Jungian archetypes that are embedded in the consciousnesses of people. Moreover, "the games themselves become symbolic of our own quest to self-actualize, our quest to become better than we currently are" (Tews 2001:176). Videogames may offer the opportunity for a kind of vicarious accomplishment through the player's avatar. Since the avatar is under the control of the player, the player derives satisfaction from the experience. Critics of this perspective would argue that it is impossible to empirically confirm the embedded content of the consciousnesses of people.

Rehak (2003) expands upon Tews' analyses with regard to the first-person perspective interface utilized by action combat games that was popularized with the original *Wolfenstein 3-D* release in 1995. In *RtCW*, as with most other videogames of the action genre, players control a character within the modeled world of the game. This character is referred to as an avatar. The game world is presented to the player as though looking through the eyes of the player's avatar. Thus, a player's avatar is invisible to him or her with the exception of his hand holding the weapon held in front aimed at the center of the screen (See Figure 2).
First it is necessary to explain the logistics of avatar control. Avatar control is complex. The body is controlled via key strokes: one key each to move the avatar forward, backward, turn left, turn right, and sidestep to either side. The movement of the mouse controls the viewpoint or movement of the avatar's "eyes". Control of the body and the head are separate. By moving the mouse toward oneself this causes the avatar's perspective to correspondingly tilt upward as though one moved their head back to look up. Moving the mouse away from oneself causes the avatar's perspective to tilt downward. Leftward mouse movement moves the avatar's view left and rightward movement right. The
keyboard moves the body and the mouse moves the head. For example, a player can perform the equivalent of an avatar rolling his head by moving the mouse in a circular motion. Players can move the body of their avatar forward while the head and view remain totally isolated or vice versa, players can look around while standing still. There are humanistic limits to this such as the head can only be turned so far in any direction. In order to look behind the avatar it is necessary to turn the body not just the head.

Returning to Rehak’s (2003) psychoanalytical analysis of FPS games, he asserts “The video game avatar, presented as a human player’s double, merges spectatorship and participation in ways that fundamentally transform both activities” (p.103). The avatar is simultaneously an other since there remains some awareness by the player that this character only exists within the game, as well as a self, since the actions of the avatar are controlled exclusively by the player and appear as though from the player’s perspective. Rehak (2003) expands further on this idea to compare the player relationship to the avatar with the Lacanian mirror stage of infant development. Recognition of one’s reflection in the mirror forces “the ego formed through identification with a reflection or representation of itself is thus forever split, rendered incomplete by the very distinction that enables self recognition” (Rehak 2003:105). This is a variation of the Narcissus myth, as the avatar is not a reflection but a slightly distanced other. Marshall McLuhan (1994) argues a different but still applicable interpretation of the myth, that “[t]he youth Narcissus mistook his own reflection in the water for another person … He was numb. He had adapted to his
extension of himself and had become a closed system” (p. 41). The action videogame interface allows for the psychological and physical separation enough to experiment with that closed system. The avatar is an extension of the player that absorbs all of the symbolic damage without harm being done to the player. However, the identification with the avatar leaves the player open to intense psychological antagonism.

The dual nature of avatar as both extension of self and representation of other is important because it is ideally arranged for suture in contrast to the difficulty of achieving this with film for which the concept was first introduced. Suture is the process whereby specific techniques are used to implicitly envelop the film viewer within the space where the film takes place. In film suture is dependent on the shot/reverse-shot system because of the passive state of the spectator.

In the first [shot] the missing field imposes itself upon our consciousness under the form of the absent-one who is looking at what we see. In the second shot, the reverse shot of the first, the missing field is abolished by the presence of somebody or someone or something occupying the absent one’s field. The reverse shot represents the fictional owner of the glance corresponding to shot one. (Dayan 1999:127).
The spectator is thus sutured between the glances of the two subjects of the film. In film theory this concept was employed as a method of describing how empathy with onscreen characters was encouraged.

The shot/reverse shot technique had to be developed within film to make this possible because of logistical difficulties with extended point-of-view shots. In FPS videogames:

the game apparatus - a software engine that renders three dimensional spaces from an embodied perspective, directed in real time by players through a physical interface - achieves what the cinematic apparatus cannot: a sense of literal presence, and a newly participatory role for the viewer. (Rehak 2003:121).

However, the second shot is not necessary to complete the system and achieve the suture for first-person perspective videogames. In this case the system is complete because the player controls the perspective displayed on-screen. Rather than having to create an empathy with an other on the movie screen, the videogame presents the view as though it were that of the player. Identification occurs by default once players understand what is presented on screen is “theirs”; it is their perspective. This in turn highlights the significance of the war scenarios of many of these games including *RtCW*. According to these ideas, the threat of bodily harm and death of the avatar, the representational self of the player, is what compels players to continue in these games.
Players enmeshed with their computers and game consoles brings to mind Haraway's (1991) notion of cyborgs. Haraway (1991) theorizes that in contemporary society people ostensibly become cyborgs because of the omnipresent technological extensions of themselves that they use everyday. “The boundary between physical and non-physical is very imprecise for us” (Haraway 1991:153). Friedman (1999) notes the cybernetic nature of the video gaming experience. While playing videogames, people are positioned in a closed system of electronics. This system consists of a very complex dynamic of interaction and control. Depending greatly on the type of game and the objective of the player, videogames oscillate between compelling players to perform to the demands of the system and allowing players absolute control over pace, intensity, and duration of their experience. Cybernetics as originally defined by Norbert Weiner and Claude Shannon is the study of processes of feedback (Friedman 1999). Note the parallels to playing a videogame.

The constant interactivity in a simulation game – the perpetual feedback between a player’s choice, the computer’s almost instantaneous response, the player’s response to that response, and so on – is a cybernetic loop, in which the line demarcating the end of the player’s consciousness and the beginning of the computer’s world blurs. … But what the connection between player and computer enables is access to an otherwise unavailable perspective (Friedman 1999:137-8).
The distinction between person and machine, between player and computer in this case, is a "leaky distinction" (Haraway 1991:152) and this dissolution of boundaries has sociological implications. This is a mindset willingly adopted regularly by many people and this type of experience and its potential implications have been only minimally researched.

The Influence of Videogames

Videogames and Learning

Videogames often serve as the first computer with which people interact. This is still true today and has been considered a significant factor in the different gender involvement in computer related industries as childhood gender differences manifest and are exaggerated in later life (Cassell and Jenkins 1998). Gender is conspicuous in its absence as a factor in the discussion of the violent content and aggressive behavior research as reported thus far. This may be due to the popularity of these games primarily among young men, as well as the difficulties with determining precise demographic characteristics of videogame players, but this does not excuse the lack of research that accounts for gender differences.

The dynamic tailoring of challenge and demand that computers allow is very useful in crafting experiences to continually challenge users. This is the primary reasoning behind much of the advocacy for using computers in educational settings other than imparting basic computer skills. Videogames can also offer constant symbolic reinforcement. Games that are specifically designed to be
instructional have been shown to be a successful teaching tool (Axelrod et al. 1987). Other studies have shown that videogames are useful for certain types of military training as well as improving cognitive spatial abilities (Green and Bavelier 2003).

Provenzo (1991) explains, the learning that takes place is often a byproduct of playing the videogames. He describes interviews with grade school boys who had extensive knowledge of martial arts weaponry, but when questioned further were unable to offer any other details about the Ninja or Samurai as social classes or their historical roles. Provenzo (1991) offers this as an example of very specific learning that takes place as people play videogames. This latent learning may be attributed not only to the sheer magnitude of repetition of exposure but also the vested interest in weapon familiarity in order to improve game play.

There is also very recent research that demonstrates "action-videogame playing is capable of altering a range of visual skills" (Green and Bavelier 2003). Scientific research has very recently confirmed some of these propositions specific to games such as RtCW that utilize the first-person perspective introduced by Wolfenstein 3D.

Experienced players ... identify objects in their peripheral vision, perceiving numerous objects without having to count them, switch attention rapidly and track many items at once. ... First person action
games increase the brain's capacity to spread attention over a wide range of events" (Blakeslee 2003:1).

Correlating specific game playing and its effects on visual acuity or other skills is important. However this project focuses on evaluating how specific games suggest underlying ideas, that however imperfectly, players of various skill levels and intensity of participation will absorb.

_The Different Experience of Videogames_

Many of the issues that are relevant in the discussion of videogames stem directly from the unique qualities of the videogame medium. Issues of videogame learning are central to the differences between videogames and other media, specifically the demonstrable type and extent of videogame learning has ramifications for claims about videogames as agents of socialization and whether violent videogames contribute to violent behavior. If learning does not occur this would limit claims regarding influence on behavior. Researchers have attempted to extrapolate the findings of previous research about other media as context for exploring videogames with varying levels of success (Greenfield 1984; Laurel 1991; Fleming 1996, Murray 1997). These attempts have highlighted the similarities and differences between videogames and other media.

In Patricia Greenfield's (1984) _Mind and Media: The Effects of Television, Video Games, and Computers_, she notes the combination of elements that are unique to videogames. Greenfield (1984) summarizes, "Video games are the first medium to combine visual dynamism with an active participatory role for the
child” (p.101). She notes other studies reveal children, in settings such as museums and zoos when given the choice of only observation or some level of participation prefer to participate. The implicit assumption that videogames are played only by children dates Greenfield’s work. Compare this to Tews (2001):

While we believe that gaming peeks in adolescence, between age thirteen and seventeen, there is no evidence to suggest that it is outgrown or that people do not continue to play into adulthood. In fact, it appears that adults who played as adolescents continue to be avid users (P. 171)

Regardless, Greenfield's (1984) research indicates a general tendency for people to want to engage in their experiences whenever possible.

Videogame players are uniquely positioned as simultaneously spectator and participant. Understandably much of the writing about this position draws from film theories about scopophilia and subject/object dichotomy. "So, more radical film theory's interest in finding textual ruptures or tensions as signs of flexibility in subject positioning is now joined by other possibilities" (Fleming 1996:170). These other possibilities are created because videogame players alter the narrative of the game. In contrast to the passive spectating of television or film, video games allow people to representatively, on-screen, become a participant with direct influence over the action.
Though we may refer to film spectatorship as “active,” due to the viewer’s ongoing attempt to make sense of the film, the video game player is even more active, making sense of the game as well as causing and reacting to the events depicted ... simulation becomes emulation, and sympathy becomes empathy” (Wolf 2002:3).

In short the ability to directly influence the progression of the events on-screen distinguishes videogames from narrative media. “If knowledge of how film operates on the spectator is still incomplete, consider how much more incomplete is the knowledge of how video games operate on players, and what their effects are” (Wolf 2002:4). Sociologists and cultural scholars should be compelled to research how videogames influence participants just as they are compelled to research how film or television influences spectators.

Implications of the Videogame Experience

The extent to which videogames influence their players is the crux of several videogame related issues. The primary specific relevant issues are videogames and aggressive or violent behavior and assertions of an addictive quality of videogames.

Videogames and Violence

The relationship between videogames and violence is the most prominent issue surrounding this medium, and has subsequently been the most frequently researched. Central to the discussion of violence in videogames is what players
may learn from them. The objections to violent content are based on the belief that videogames impact those who play them. This impact has primarily been thought to be either desensitization to, or instruction in, violent behavior (Carbone et al. 1996).

The issue of violence in videogames grew out of concern about violence depicted in film and television. This began as early as 1952 when "an editorial in the Journal of the American Medical Association raised the topic of TV violence as a health issue" (Grossman and DeGaetano 1999:123). From this initial concern the relationship between violent content in various types of media, including television, movies, and music lyrics and violent behavior has been intensely debated. The elements that distinguish videogames from other types of media, especially the participatory component, have attracted increased attention to videogames as potentially greater threats in this capacity. Much of the earlier research regarding correlation and causation between violent videogames and violent behavior was theoretical extrapolation based on research about this relationship with the violent content of other visual media (Loftus and Loftus 1983; Greenfield 1984; Provenzo 1991). This research was largely based on either the idea that saturation causes desensitization or that observing behavior elicits that behavior.

One of the earliest authors to implicate videogames in contributing to violent behavior is Eugene Provenzo. In Video Kids: Making Sense of Nintendo, Provenzo (1991) writes that when "...violence is stylized, romanticized, and choreographed, it encourages children and adolescents to assume a rhetorical
stance that equates violence with style and personal empowerment" (2000) This stance is the most widely adopted among the current literature about videogames. It is important that he prefaces his survey of the research at that time by stating, "...in the world of video games; there is no sense of community; there are no team players. Each person is out for himself" (Provenzo 1991:118). Provenzo (1991) argues that the individualism described earlier is further problematic because it serves as the justification for personally enacting the symbolic violence experienced within videogames. This may have been an accurate description at the time he was writing, however, much has changed since then. Recent multi-player internet games have each player participating as a member of a team where the team objectives supersede individual achievements in terms of inherent game acknowledgements such as scoring.

It is notable that Provenzo (1991) includes the importance of the "even larger context in which the violence takes place" (p. 119) because few other researchers acknowledge this. This is reiterated and expanded upon more recently by Tews (2002): "The problem with the early research is that it did little to encourage additional research on the complexities of the gaming world" (p. 172). Provenzo (1991) asserts that, "the message communicated ... is that violence is not only acceptable, it is necessary to win" (p.124). While Provenzo (1991) addresses the context of the violence within the videogames he does not address the larger context outside of the videogame diegetic.

The debate about violent videogame content and its effects remains polarized. Lt. Dan Grossman, retired from service in the US Army and Gloria
DeGaetano (1999) who co-authored *Stop Teaching Our Kids to Kill: A Call to Action Against TV, Movie, and Video Game Violence* are among the more recent and emphatic to argue the connection between videogames and violent behavior. As indicated by the title, Grossman and DeGaetano (1999) argue "the fact is that media violence primes children to see killing as acceptable" (p. 7). They maintain their overall conclusion that media violence when glamorized, sanitized, and frequently portrayed as fun, has profound and disturbing influences on children and their behavior.

On the opposite side of the debate is Gerard Jones (2002) who in *Killing Monsters: Why Children Need Fantasy, Super Heroes, and Make-Believe Violence* outlines a markedly different opinion of violence in various types of media and the effects on children. He deconstructs the research statement issued by six prominent medical groups including the American Medical Association and the American Psychiatric Association, entitled "Joint Statement on the Impact of Entertainment Violence on Children," often referred to by critics of videogames for support. This statement was issued in July of 2000 and endorsed by many of the most prominent and respected medical and psychiatric professional associations. Jones (2002) offers the following excerpt:

> The effect of entertainment violence on children is complex and variable. But while duration, intensity, and extent of the impact may vary, there are several measurable negative effects of children's exposure to violent entertainment (P. 27).
Jones (2002) convincingly systematically counters the statement by quoting the AMA spokesman Edward Hill: “neither he nor anyone else on the AMA board was able to read the research before authoring the statement” (p. 29). Jones read much of the research and points out significant problems throughout. Problems in experimental design ranged from unrealistic contexts of exposure inducing unrealistic results to bizarre, simplistic, and varied definitions of “aggressive behavior”, to typical problems of behavior and attitude measurement, and finally to outliers and underreporting of contradictory findings (Jones 2002).

Jones (2002) even addresses many of these issues in the epitomic media and violence experimental research of Bandura and the aggression displayed by children toward an inflatable doll. He likens the proposed link between violent media and violent behavior to pre-Freudian findings about sexuality. In summary, with regard to videogames and violent behavior researchers found what they expected to find (Jones 2002). He contends that the corollary also holds true, very rarely have researchers looked for a relationship between the positive effects or benefits of exposure to media and violence and so this relationship has rarely been found. Just as 19th century psychiatrists found that so-called sexual dysfunction was invariably the result of excessive sexual stimulation recent researchers find that aggressive behavior is the result of exposure to media violence. Jones argues that the relationship between exposure to violent media and aggressive and/or violent behavior, is a much more complex phenomenon.

Jones (2002) takes particular issue with the popular conception that FPS videogames are inherently harmful to those who play them. This is proposed to
be true particularly for children, for FPS videogames more so than any other type of media because of the additional participatory element, the realistic depiction of gore, and realistic human targets. Jones (2002) counters that: “Because games are so obviously artificial, so completely the player’s tool, they are the medium least capable of inspiring any powerful emotion beyond the thrills of the playing itself” (p. 181). Taking issue with DeGaetano and Grossman, Jones (2002) again turns to context as the primary element of differentiation separating military use of similar technologies for training and the desensitization to killing for soldiers and childrens’, teenagers’, and adults’ use of FPS videogames for recreation.

Jones (2002) also cites the work of Dr. James McGee to address the much-publicized interest in the FPS game *Doom*, played by Columbine High School perpetrators Dylan Klebold and Eric Harris. Dr. McGee found that of sixteen school “rampage” shootings carried out by eighteen boys, Harris and Klebold alone were active players of FPS videogames. “Most contemporary gamers are also involved in social and intellectual processes far more complex than merely playing in an arcade” (Jones 2002:170). There is great complexity and range of behaviors that occurs in multi-player games including *RtCW* and although the violent content must be considered as one part of the overall phenomenon it should not be the only consideration.

*Videogames and the Military*

The issue of violent content in videogames is complicated by the longstanding overlaps between videogames and military training simulations. This began in 1978 with Atari producing a modified version of its tank simulation game
Battlezone for the Department of Defense. Battlezone is also credited as being the first game to incorporate a first-person perspective similar to that utilized in RtCW and is now convention for the FPS genre (Ye 2004). In 1980 the RAND corporation conducted a cognitive psychology experiment designed to determine the number of falling objects on-screen to which a human air defense tracker could respond. They created a simulation where an increasing number of objects, dropping down from the top of the screen at varying speeds, had to be targeted and “shot down” before reaching a horizontal threshold near the bottom of the screen. This simulation was released, virtually unchanged, to the public as the videogame Missile Command (Herz 1997:216). Similarly, flight simulators have been, and continue to be used to help test and train civilian and military pilots (Herz 1997).

The concern about videogames as military training devices was heightened with the first Gulf War in 1991. Much of the combat footage was screen mediated. Moreover, entire battles were modeled so simulations of permutations on supplies and firepower could be run for strategy and training (Kelly 1995). “According to the Defense Department, training soldiers to fight on Sun workstations and networked PowerMacs is extremely effective, since modern warfare takes place behind the screen anyway, via satellite, surveillance, radar, infrared sights, and ... computer monitors” (Herz 1997:198). Grossman (1999) also notes the use of the Multipurpose Arcade Combat Simulator by the U.S. Army and the Fire Arms Training Simulator used by law enforcement agencies to
train their respective personnel that are slightly modified versions of FPS videogames.

The first-person perspective was re-introduced (very rarely appearing since *Battlezone* in 1978), with *Wolfenstein 3-D* in 1992. This time it became so successful that the first-person perspective has become a defining characteristic of the action genre (Ye 2004). For Grossman (1999) this method of presentation as well as the heightened realism of graphics greatly exacerbates prior concerns about the effects of these videogames. He singles out FPS games as "killing simulators" (Grossman 1999:72). Grossman (1999) cites previous research that he co-authored regarding the use of combat simulations by the military accounting for significant increases in "firing rate from 15 – 20 percent in World War II to 95 percent in Vietnam" (p. 74). The firing rate is comprised of two components needed to kill someone with a gun, the physical ability to use it, and the willingness to kill. He argues that videogames serve as operant conditioning that limits or removes hesitation and greatly increases the requisite physical skill. Grossman (1999) refers to both the context of the training as well as that within the game diegetic, noting that often in training the context of the action is clearly understood and distinct for the people involved and the correct option is not to shoot. Grossman (1995) is primarily concerned with children's access to the games, stating children "do not have the brain capacity yet for analysis, evaluation, or moral judgment, they are developmentally unable to discern the difference between fantasy and reality" (p. 54). Thus he argues the context of the
violence within videogames is transitive for children to real world situations much more so than for adults.

In sum, similar to debates about the content of television programming and movies, videogame violence has been a subject of major controversy since their inception. This debate is unlikely to be resolved. As with the violent content of television, the significance of videogame violence is not as simple as it may first appear. The influence and messages of violent television are mediated by a number of factors including the context of the viewing and the context of the violent acts portrayed. Violence in videogames is similarly mediated. As Herz (1997) touches upon, and Jones (2002) more extensively explores, this relationship is often complex and case specific. The violent content in RtCW is a component of the game and thus subject to analysis in my research. However, it is not my primary intention to try and resolve this ongoing debate. I wish to consider the violence in RtCW as one component of the cooperation and competition among players. I will continue on from Frasca’s (2003) apt observation that, “Slowly, academic interest has shifted from the early do-games-induce-violent-behaviors studies toward analyses that acknowledge the relevance of the new medium” (p. 221). So although violence is a component of RtCW and is included and acknowledged as such in my research I endeavor to conduct a more complete analysis of RtCW.

Immersion and Appeal

The addictive potential of videogames is another frequently discussed videogame-related issue. Similar to issues related to videogame violence, the
participatory component is an important part of claims videogames hold potentially addictive appeal.

Although published in 1984, Patricia Greenfield's description of the deceptive simplicity of Pac-Man and the considerable inductive learning involved in playing is still apt. At this point, claiming Pac-Man is a complex game to play is something at which to balk. However, to someone encountering videogames for the first time even the simplest of videogames might, appear as a challenging and complex symbolic morass with its own underlying logical system requiring a great deal of learning and discovery to understand (Greenfield 1984). I endured a similar experience the first time I played RtCW. Somewhat like explaining how to drive to someone who has never seen one, explaining how to play Pac-Man, or another videogame, to someone who has never seen the game is absurd. However, since videogames are largely pictorial systems, experience often results in an acceleration along the learning curve even for those who may be from a wide variety of backgrounds. This may not hold true for the complexity and language specific components of RtCW but there are still pictorial indicators for virtually every objective within the game.

Greenfield (1984) also asserts that "part of the excitement of the games surely must lie in this process of transforming randomness into order through induction" (p. 112). Jane Healey (1990) in her book Endangered Minds posits a sharply contrasting explanation for the compulsive appeal of videogames. Healey (1990) argues the feelings of mastery and control that are offered by the videogame are compelling to children and teenagers who are both demographic

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groups associated with high levels of anxiety and little power. An activity where
destruction and mayhem are encouraged rather than suppressed and shunned
provides a healthy outlet for normal feelings of aggression. Healey’s (1990)
simulated control is comparable to Jones (2002) reference to videogames as a
positive and rare opportunity for expression of these emotions for usually
impotent children.

Sherry Turkle (1984) extends this idea further claiming:

When you play a videogame you enter the world of the programmers who
made it. You have to do more than identify with a character on the screen.
You must act for it. Identification through action has a special kind of hold.
... For many people, what is being pursued in the video game is not just a
score, but an altered state (P. 83).

This altered state she describes as being a “second self.” I think this situation is
perfectly exemplified when playing a home console system with more than one
controller and the players must figure out which figure on-screen is under their
respective control. This is often accompanied by questioning, “Who am I?” in
reference to which character on screen is supposed to be the avatar for each
player. This problem is amplified in first-person shooter games such as *RtCW*
because the first-person perspective remains even when one is not controlling
the character from whose perspective the screen is showing. So until one joins
the game the perspective of another player is displayed onscreen and to the
uninitiated it is very difficult to discern if the actions presented are under one's own control.

This is not lost on Turkle. She observes that "working out your game strategy involves a process of deciphering the logic of the game, of understanding the intent of the game's designer, of achieving a 'meeting of the minds' with the program" (1984:34). The multi-player FPS environment transforms this experience. Although an overall objective is still the focus of the game, play primarily involves actions involving other players. In addition, now one can observe other players' actions in order to figure out goals and rules. Writing in 1984 about watching a thirteen year-old girl play the game Asteroids Turkle describes the whole immersion of the girl and "... a sense of force at work, a 'holding power' whose roots are aggressive, passionate, and eroticized" (p. 65). This is similar to the description offered by Greenfield about playing Pac-Man.

Although complexity does not necessarily result in greater player engagement it is interesting to compare several key characteristics of engagement of these past arcade games, Asteroids and Pac-Man, to RtCW in terms of objectives, player control, and player expectations. The objectives range from shoot all asteroids or eat all dots to completing role dependent sub-routines such as maintaining health and ammunition supplies, while killing only opposing players, and defending or escaping attacks, while contributing to the team effort to accomplish an overall objective. Player input for the past games was the three buttons used in Asteroids or one joystick for Pac-Man in comparison to simultaneous mouse and keyboard control for movement. The goal of Asteroids
is to shoot everything that is not the triangular ship and avoid collisions. The goal of *Pac-Man* is to evade four ghosts and navigate a two-dimensional maze in order to eat all the dots. *RtCW* players must immediately recognize historically accurate uniforms to distinguish friend or foe, fulfill specialized role requirements, and coordinate various individual efforts with numerous team members in order to achieve cumulative objectives within a three-dimensional modeled environment. In sum, there is a great deal more expected of *RtCW*. These significant demands must be carefully organized and balanced by programmers so that players can gain mastery of control and focus on game play.

Another appealing aspect of many videogames, including *RtCW* is the ability to customize the difficulty of the challenge. Healey (1990) contends that the most engaged and entertaining videogame experiences occur when there is, “exact calibration of the level of difficulty to the player’s [ability level]” (1990:207). With *RtCW* this is not exactly true as players play against other people and so the challenge is not subject to precise, incremental, mechanical control. However, players do have the option of choosing from among many servers in order to find a game of desirable challenge.

The customizable experience of videogaming as a source for their appeal is consistent with Mihaly Csikszentmihalyi’s (1991) concept of “flow.” Csikszentmihalyi (1991) specifically connects flow to interaction with a system with limited and direct possibilities. Specific examples he puts forth include athletics, playing music, deep conversation, and games.
It is easy to enter flow in games such as chess, tennis, poker, because they have goals and rules for action that make it possible for the player to act without questioning what should be done and how. For the duration of the game the player lives in a self-contained universe where everything is black and white (Csikszentmihalyi 1997:29).

Csikszentmihalyi (1997) identifies several key components of flow including a clear set of goals that require appropriate responses, immediate feedback about how well one is doing, and an activity where one's skills are fully involved in overcoming a challenge that is just about manageable. When these factors are experienced simultaneously a person is highly likely to experience flow. Csikszentmihalyi (1997) describes the experience of flow as follows: "There is no space in consciousness for distracting thoughts, irrelevant feelings. Self-consciousness disappears, yet one feels stronger than usual. The sense of time is distorted: hours seem to pass by in minutes" (p. 31). Compare this with:

A striking feature of these [video]games is their compression of time, both in the world of play where moments separating action are dramatically foreshortened, and in the real world of the players, who re-emerge to discover that more hours have elapsed than they thought possible (Stallabrass 1996:92).
The adaptability and requisite participation of videogames makes them perfectly suited as an activity conducive to flow.

The symbolic control of a character may offer great satisfaction and release for a number of people living in a culture of fear and violence. Fontana (1978) gives a broad overview of the United States’ cultural climate of the late 1970s.

People become bored and jaded in their sterilized, plasticized, mechanized, sound-proofed houses. Their lives have become strictly organized by charts, routines, and clocks, their individuality has been stunted by the prescriptions and proscriptions of their job descriptions, and their upward mobility has been limited by an increasingly complex network of bureaucratic requirements. They become fans (Fontana 1978:225).

Now these spectators can become simulated participants in *RtCW* and other videogames. The technological development of games since *Pac-Man* allows them to maintain a level of spectacle to which we have become accustomed. No longer confined to vicarious winnings of their favorite athlete, they can temporarily control a character that can endure and participate in an orgy of violence with only reasonably good hand-eye coordination. The elite players may have reaction times that differ by microseconds, but this is not required of the typical player.
It is an ironic contradiction of modern life that we have lost individuality at the hands of the rationalization processes which freed us from primitive modes of life; it is another ironic contradiction of modern life that we seek a return to individuality by resurrecting the primitive feelings of simulation and vertigo. The final irony is that some of us can only return to individuality via the anonymity of a huge crowd or in the darkness of a movie theatre (Fontana 1978:220).

This bureaucratization and sterilization has only progressed since the late 1970s. At that time one returned to individuality in the semi-privacy of a crowded dark theatre. Via the Internet combat game players return to individuality in a bizarre combination of complete privacy and mediated interaction.

Given endless opportunities to begin anew, players can engage in symbolic displays of bravery and power with very little risk. Action titles such as Quake, Doom, Half-Life and their sequels are all among the best selling computer games ever. In a culture of fear (Glassner 1999) this partial explanation for their popularity is a reasonable possibility.

Herz (1997) asserts that "beyond the basic tribal shoot-'em-up premise and the social itches it seems to scratch, there is something more important that sets Doom apart from the hundreds of first-person 3D shooters on the market. And that crucial element is: fear" (p. 88). The fear in this game is conquerable by winning the game or besting an enemy.
Conclusion

Among other early videogame researchers, Loftus and Loftus (1983) and Greenfield (1984) adequately introduce many of the primary issues related to videogames that are still being discussed: if and what videogames teach both explicitly and implicitly especially concerning games with violent content; their appeal and addictive potential; and how videogames influence players social lives.

In the last thirty years videogames have become a significant form of recreation and in turn also an important part of the landscape of socialization. The spectator of thirty years ago now has the opportunity to be the participant. Although not quite the shoes of another person, these games present not only the sights and sounds of a simulated perspective to the players, but also an environment that requires player participation in order to progress.

These environments are meticulously constructed by teams of designers in terms of both appearance and dynamics of experience as shaped by the play mechanics. I have outlined several possible explanations that researchers have offered thus far for the appeal of these environments. It is indisputable that these environments are appealing to a great many people. Why some people choose the specific option of simulated warfare is an important sociological question.

The popularity and ubiquity of videogames has achieved such widespread participation that it should not be ignored any longer by sociologists, communication scholars, and cultural investigators. I am specifically interested in FPS action games. As the genre name indicates, these games present the
opportunity to experience a simulation of combat as recreation. If we are to
determine what is the value and significance of this phenomenon in
contemporary society then we must first have a much better understanding of the
experience. This begs the questions: What is the experience that these games
offer? What do the players learn from these experiences? Once we have a better
idea of exactly what constitutes and comprises the playing experience of this
subset of modern games we may begin to understand their influence and what
the popularity of these games means for American society. My research
contributes to an understanding of the videogame experience especially the FPS
action genre.
CHAPTER 3

METHODOLOGY

As videogames have become a widespread form of recreation, researchers have been compelled to investigate their sociological importance. Now that a canon of research has begun to establish a general overview of the medium (Poole 2000; Berger 2002; Wolf 2002), more specialized analyses of various aspects and types of games is warranted but only beginning to occur.

Study Components

I conducted a descriptive case study of Return to Castle Wolfenstein (RTCW), a current popular FPS internet game. I focused on how the “play mechanics ... the inner workings [of the videogame] shape game behavior,” (Parker 2004) and influence the interactions of the participants.

I referred to the works of Friedman (1999) and Berger (2001) who both conducted analyses of videogames. Although this method is unusual and very limited in terms of generalizability, I feel it is the most appropriate method to understand the underlying logic of the game. As Wolf (2001) points out videogames are distinct in the significantly longer time period required to elicit such an understanding. "Instead of fixed, linear sequences of text, image, or sound which remain unchanged when examined multiple times, a video game
experience can vary widely from one playing to another” (Wolf 2001:7). As a result a videogame may take significantly longer to explore completely and to gain a thorough understanding of its content and underlying logic. Once a sufficient number of case studies have been compiled it will be possible to make comparisons, discern trends, and make more generalizable conclusions about types of games. My research includes two primary components: (1) an analysis of the game’s structures and rules, specifically focusing on play mechanics related to cooperation and competition; (2) an analysis of the on-screen chat that occurs among game players during game play.

Methods Overview

Sociological research in general in this area is problematic, and although awareness of other work may inform new projects unforeseen problems invariably occur. Internet research is even more complicated.

... currently there is no standard technique, in communication studies or in allied social science disciplines for studying the Web. Rather it is [a] case of plundering existing research for emerging methodological ideas which have been developed in the course of diverse research projects, and weighing up whether they can be used or adapted for our own study (Wakeford 2000:39).

This is what I have done. I have drawn upon as many relevant methodological techniques from various other studies as was possible.
Although I did not conduct a cyberethnography, I followed the recommendations of Bell (2001) and Hine (2000) regarding cyberethnography because of the parallels that did exist with my research into online gaming experience. Hine (2000) asserts “the [cyber]ethnographer is also a participant in using the media of cyberspace … reflexivity about online experiences should be foregrounded” (pp. 64-5). The utilization of personal experience is one of the many tools in the ethnographer’s toolbox that has been documented and discussed by sociologists studying a variety of phenomena (Okely 1994; Gottschalk 1998; Ellis and Bochner 2000; Tedlock 2000). Much of my analysis is based on personal experience playing and observing game play. This is particularly true for the analysis of how game structure influences cooperation and competition. For the analysis of in-game text chat, I have adapted more traditional methods that have been used for qualitative data analysis (Altheide 1996; Silverman 2000), as well as methods employed for studying comparable types of computer-mediated-communication (Markham 1998; Soukup 1999; Rheingold 2002; Chuan et al 2004).

Game Selection

Videogame popularity changes constantly. After reviewing several prominent internet combat games at the time I began my research, I selected RtCW to use as a case study. My selection of RtCW is due to several factors. First, it was an immensely popular game throughout the time of my data collection. This is due to its entertainment value, as well as its availability for GNU/Linux and Macintosh operating systems as well as Windows operating system. Thus RtCW is available
to virtually all computer users. Another indication of the popularity of \textit{RtCW} is it being voted Online Game of the Year as well as Best Computer Action/Adventure game of the year for 2001 by the Academy of Interactive Arts and Sciences. The A.I.A.S. is the videogame equivalent to the Academy of Motion Picture Arts and Sciences Oscar awards for films. The A.I.A.S. awards are similarly determined by experts in the field, voting for various outstanding contributions to videogame production and design.

Practical reasons were also influential in selecting this specific game for analysis. Companion software exists for \textit{RtCW} which allows game play to be recorded. There is a running log within \textit{RtCW} that creates an entry each time a player is killed, a player dies, a team objective is achieved, as well as the chat that occurs, and various technical aspects of the game server. Furthermore, software has been developed by the game playing community that makes it possible to extract various categories of entries from this log. Although primarily used by the community to compile detailed statistics of player performance, it also allows the in-game chat to be extracted. These chat log entries can then be exported into a word processing file. This greatly facilitated analysis of the text chat.

\textit{Personal Gaming Experience}

Since much of my analysis is based on my personal experiences playing and observing game play it is necessary to describe that experience in more detail. Although I have played videogames throughout my life, beginning in elementary school, I had minimal previous experience with videogames of the FPS genre.
prior to *RtCW*. This experience was more than five years before I began this project and did not include experience with multiple players. My decision to research this type of videogame grew out of my intrigue with *RtCW* from the first time I played.

I began playing *RtCW* in April of 2002 and played consistently for approximately a year and a half. For the first year I estimate I averaged playing four hours a day for five days per week, or about twenty hours per week. For the following six months I estimate on average I played for three hours a day for four days per week, or about twelve hours per week. Altogether this amounts to just less than one thousand four hundred hours of total playing time. After this time my playing declined to where I only played sporadically.

I collected my data throughout May of 2003 just after my first year of playing. At this time my player name was recognized by many of the regular players on several of the more popular servers. Upon joining a server I would usually be welcomed by a few other regular players through unscripted chat even though it is possible to issue a voice chat greeting. Likewise, I recognized many of the regular player names and would similarly greet them when they joined on a server where I was playing. This indicated familiarity and friendliness between those players and me.

When I began playing I was a complete novice and rarely scored more than minimal points. My playing ability improved dramatically for the first two months and then I improved marginally for another three to four months. After the initial six months my game play did not improve noticeably. My peak period of play was
from August of 2002 until May of 2003. During this time I generally ranked in the top three to five players for any given match based on players' scores. I occasionally placed first on a team for a match based on individual players' scores. Although I would characterize myself as a better than average player I was not ever solicited to join an organized team (commonly referred to within the gaming community as a clan). I did observe this happening to other players approximately a dozen times over the course of my involvement.

Within the game I primarily played in the role of Medic although I did play as each of the four possible roles numerous times. I found that I enjoyed playing as a Medic more so than the others. I discuss the implications of playing different specific roles in the analysis chapter. I found that I scored higher when playing as a medic and that was part of the greater appeal of this role for me. When I was playing, rather than just observing game play, I played to the best of my ability to help my team. If I had been a more successful player I may have had greater success when attempting to get players to communicate with me outside of the game environment. For example, I was unable to get players to complete email surveys about their playing experiences. If I had been able to join a clan I also think this would have given me access to other desirable data such as email surveys or instant messenger interviews

The personal satisfaction I derived from playing was conducive to amassing the extensive experience necessary to evaluate a videogame as described by Wolf (2002). However, I feel that my enjoyment and relative success playing may have influenced me to have an artificially positive bias toward the experience.
These potential biases are not unique to the study of videogames. I did my best to critically evaluate my analyses keeping the possibility of bias in mind in order to minimize them.

*Part 1: Game Structure, Cooperation, and Competition*

Previous research has shown how board games function as systems that are imbedded with meanings and ideology (Glasberg et al. 1998). For example, in the board game *Life*, the player who upon successfully navigating the board, accumulates the most money is declared winner according to the official rules. With this rule, unbridled accumulation of wealth is cast as the best possible life activity without regard for ethical concerns or other sources of contentment or life satisfaction. This certainly does not mean everyone who plays *Life* will devote their lives to the accumulation of money. However, for players, especially populations such as children susceptible to suggestion, games act as agents of socialization (Barthes 1972; Lever 1978; Miller 1987; Glasberg et al. 1998). Although such messages may not have an immediately obvious or dramatic impact on players, they may have subtle yet important effects particularly since implicit messages are not always as obvious as they are in the board game *Life*. For this reason, I analyzed the structures and rules of the videogame *RtCW* for arrangements that are related to cooperation and competition.

Similar to any media text, there are likely many different readings or experiences of the situations that occur in *RtCW*. Stuart Hall (1980) explains:
the domains of ‘preferred meanings’ have the whole social order embedded in them as a set of meanings, practices, and beliefs: the everyday knowledge of social structures, of ‘how things work for all practical purposes in this culture’, the rank order of power and interest and the structure of limitations, limits, and sanctions ... which seek actively to enforce or prefer one semantic domain over another and rule items into and of their appropriate meaning sets (P. 134).

Although even media such as movies and books that have objective content, evaluation and analysis may vary considerably in determining what constitutes their preferred meanings. As a videogame, individual playing experiences of RtCW differ, but the game is controlled by an established constant program that has absolute boundaries, limitations, rules, and processes.

Possible implications that I found are based on my experiences playing. While acknowledging that other interpretations of the structural game situations exist, I focus on internal game situations while refraining from making moral judgments. For example, in the board game Monopoly, money is equated with success and rewarded within the structure of the game by defining the wealthiest player as winner. This does not assess monetary acquisition as either good or bad, it only states that within the system of the game this activity is structurally encouraged and necessary for winning. I do not make the claim that my analysis is final, absolute, or even the only acceptable interpretation. However an informed analysis should provide valuable information on the game playing experience.
Text chat frequencies and illustrative text chat examples are referenced in support of my interpretations of ideological structures and specific arrangements.

David Gauntlett (2000) notes in his literature review of cyberculture studies “...too often [cyberculture studies] all but ignored the ways in which the digital design of online spaces informs the types of interaction made possible” (p. 28). This also applies to how the design of videogames informs the types of interaction made possible within those videogames for both human-computer interaction researchers (Ye 2004) as well as other cultural scholars (Friedman 1999, Berger 2002; Parker 2004).

Ted Friedman's (1999) article on Sid Meier's Civilization 2 is the first and primary example of an analysis of how game structure and design reflects underlying ideologies. Civilization 2 is a turn-based simulation game where the player acts as the leader of an empire over time beginning in 2000 B.C. as a primitive tribe and attempting to survive through the year 2100 A.D. The object of the game is for players to develop their respective civilization by controlling its military, economy, and technological resources as well as shaping interactions with other competing computer-controlled civilizations in order to expand one's empire. Friedman's (1999) impetus for conducting an analysis of Civilization 2 was that while playing he noted that despite there being several successful strategies for winning the game, “...there still remain baseline ideological assumptions that determine which strategies will win and which will lose” (pp. 144-5). These ideological assumptions are programmed into the game and are revealed only through the course of playing.
Furthermore, Friedman (1999), after noting there are several ways in which to "win" the game, concludes that "underlying the entire structure of the game, of course, is the notion that global coexistence is a matter of winning and losing" (pp. 144-5). He also expounds on more subtle ideological assumptions that are inherent in the progression of the game such as the fact that "Art and Religion in Civilization 2 serve a purely functional role: to keep the people pacified. ... You can't play "the Jews" in Civilization 2, or another diasporic people. The game assumes that "civilization" equals distinct political nation. ... Either you conquer your enemy, or your enemy conquers you" (1999:145-6). Friedman does not describe his methodology other than extensive experience playing Civilization 2 and critical analysis of this experience. This is the model for ideological analysis I used when evaluating RtCW for underlying principles reflected in the game structure because of the quality and appropriateness of his conclusions based on my judgment and experience having also extensively played Civilization 2.

Berger (2002) contributes less directly to this type of analysis with the second section of his book, Video Games: A Popular Culture Phenomenon, where he describes his personal experiences playing three videogames, each from a different genre. Although in the game descriptions Berger (2002) touches on ideological issues, he primarily expands his comparison in the book's first section between videogames and traditional narratives, focusing on such things as degree of player input in determining outcomes and the overall complexity of the storylines.
These two works represent the only two attempts I found that relate play mechanics with ideology and meaning within specific games. Parker’s (2004) article primarily focuses on descriptions of the more extreme examples of ideology contained within videogame storylines but also includes acknowledgement of ideology being imbedded in the design of the play mechanics. This first component of my thesis is an analysis comparable to Friedman’s (1999), of imbedded ideology focusing specifically on cooperation and competition.

**Part 2: Player Chat**

I analyzed the chat that occurs among players during game play in order to provide a practical example of behavior shaped by the mechanics of the game itself. The chat is somewhat comparable to instant messaging. The chat is the primary method of communication among players and is thus revealing of the real-time interactions of players during the game. Silverman (2000) asserts, "Although talk is sometimes seen as trivial ("mere" talk), it has increasingly become recognized as the primary medium through which social interaction takes place" (p. 821). Text chat is the approximate equivalent of talk within *RtCW*. As such, it is the primary medium for social interaction within *RtCW*. Comparison of the chat analysis with theorized implications of the game structures is an attempt to provide empirical evidence of the game experience and interactions.

Based on my past experience as a participant, I recorded a purposive sample of game play for chat analysis to insure rich data. Although purposive
sampling prohibits generalizability, generalizability is severely restricted in this instance in other ways. First generalizability to other games is limited because of the very differences in game construction that were the focus of my analysis. Preliminary observation of server activity showed participation fluctuated significantly with the time of day and the day of the week. At peak times the most popular servers would often be full and thus inaccessible for several minutes at a time while at less active times only the most popular servers would have any players logged on. This limited the possibility of gathering data at random times and days for a representative sample. Thus purposive sampling was necessary to insure rich data. Moreover, this analysis is not intended to be generalizable to videogames in general or even the combat game genre. This analysis is meant to contribute descriptive accounts of specific aspects of game play toward the larger end of accumulating enough such studies to facilitate future general conclusions about videogame participation.

I recorded the internal game console log for a total of 18 hours of game play. The console log creates an entry for each time a player is killed, each time a player dies from other causes, all the text chat among and between teams, and game logistics such as players joining and leaving the server and team wins. 18 hours of play resulted in 72,131 total log entries. I processed these log files with the RtCW LogFile Analyzer program. This program was originally developed to create an accurate record of player statistics. As an action game with a combat scenario the vast majority of the log entries are indications of death. However,

*RtCW LogFile Analyzer made by VaPoRiZeD Software. Version 0.8 Build 2
the byproduct of game chat logs with the entries of deaths removed is the chat among players. My analysis includes relevant frequencies of events as well as illustrative examples of statements made throughout. The text chat constitutes the primary means of communication among players and thus should include indications of cooperative and competitive interaction.

The chat that takes place during the games is structurally divided into two categories. The first category, voice chat, consists of predetermined messages that are programmed into the game and are either audible to all players or one's team. The second, unscripted chat, allows players to type in anything and it appears on screen to either the players team or to everyone connected to the server as specified by the sender. These messages appear as part of the running log within the game and do not have an audible component. This is essentially identical in format to instant messaging programs such as AOL Instant Messenger (AIM), Microsoft Messenger, or Trillian.

I reviewed the methods used in prior research related to analyzing computer-mediated communication text exchanges that are comparable to the text chat that occurs within the games. There are a number of approaches to analyzing text correspondence, each specific to the medium of exchange whether it be email (Markham 1998), instant messaging (Chuan et al. 2004), chat rooms (Soukup 1999), or cellular phone text messaging (Rheingold 2002). I have adapted the methods most appropriate for the instant messaging style of text chat that occurs within RtCW.
For the analysis of the chat among *RtCW* players I employed a method that is a variation of one used by Norman Denzin (1999), adapted from Fiske (1994), when analyzing forum posts and their responses in an online support group.

This method [of instances] takes each instance of a phenomenon as an occurrence that evidences the operation of a set of cultural understandings currently available for use by cultural members. ... The analyst examines those moments when an utterance intersects with another utterance, giving rise to an instance of the system in action (Denzin 1999:109-10).

This method allows for the context of the utterance (text chat message) to be accounted for in the analysis. Since the chat among players of *RtCW* is very much dependent on considerable subcultural understandings and game expertise, as well as the action of the game, accounting for these factors was a necessity.

My analysis is also informed by McLaughlin, Osborne, and Smith's study (1995) that analyzed messages posted to newsgroups for normative discourses. Similar to Garfinkel's (1967) breaching experiments, they looked for criticizing comments to reveal the bounds of acceptable behavior. Similarly, the chat sent in response to either actions within the game or other chat would indicate violation of norms.
In sum, given the current state of participation in the different types of simulated interaction and the available means of recording data for analysis, as well as my time and resource limitations as a graduate student, I elected to focus on the text messages within RtCW as a case study example of the overall game environment influencing the play within it.

I base this research on previous efforts that have adapted traditional ethnographic methods to the study of virtual communities and computer mediated communication (Gauntlett 2000; Rheingold 2000; Silver 2000; Bell 2001). I conducted qualitative data analysis (Altheide 1996; Silverman 2000) of the game log especially the text chat among participants during game play.

Analysis Procedure

I separated all of the chat from the other log entries of deaths, server information, etc using the log analyzer program. The log analyzer does not offer the capability to separate voice chat from unscripted chat. Voice chat appears in the log file preceded by the location of the player at the time he or she invoked the statement. Using basic cut and paste commands in a word processing program I manually went through each chat file, line by line, and further separated the voice chat statements from the unscripted chat. I then combined the voice chat entries into a master list of voice chat for all recorded sessions, and likewise combined all of the unscripted chat entries into a master list.

The result was a total of 25,427 instances of chat. There were significantly more voice chat instances, 81.8% (N=20,661) than unscripted chat instances.
18.1% (N=4,766). A complete breakdown of chat instances by recorded session follows (Table 1).

<table>
<thead>
<tr>
<th>Session (Hrs.)</th>
<th>Unscripted Chats (%)</th>
<th>Voice Chats (%)</th>
<th>Total Chats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (2)</td>
<td>392 (13.7)</td>
<td>2467 (86.3)</td>
<td>2859</td>
</tr>
<tr>
<td>2 (2)</td>
<td>282 (11.1)</td>
<td>2132 (88.3)</td>
<td>2414</td>
</tr>
<tr>
<td>3 (3)</td>
<td>720 (25.1)</td>
<td>2149 (74.9)</td>
<td>2869</td>
</tr>
<tr>
<td>4 (2)</td>
<td>846 (20.9)</td>
<td>3200 (79.1)</td>
<td>4046</td>
</tr>
<tr>
<td>5 (2)</td>
<td>919 (20.9)</td>
<td>3468 (79.1)</td>
<td>4387</td>
</tr>
<tr>
<td>6 (2)</td>
<td>594 (23.6)</td>
<td>1922 (76.4)</td>
<td>2516</td>
</tr>
<tr>
<td>7 (1.5)</td>
<td>327 (15.4)</td>
<td>1793 (84.6)</td>
<td>2120</td>
</tr>
<tr>
<td>8 (1.5)</td>
<td>414 (18.8)</td>
<td>1785 (81.2)</td>
<td>2199</td>
</tr>
<tr>
<td>9 (2)</td>
<td>272 (13.5)</td>
<td>1745 (86.5)</td>
<td>2017</td>
</tr>
<tr>
<td>Totals</td>
<td>4766 (18.1)†</td>
<td>20661 (81.8)†</td>
<td>25427</td>
</tr>
</tbody>
</table>

†Totals do not add to 100% due to rounding.

There are a total of forty voice chat statements. Each instance of invoking a voice chat command with the corresponding key presses is termed one chat even though slight variations may actually be uttered as a result. For example, pressing the sequence “4” then “3” calls for your player to say “thanks” but as an axis player this may also be heard as “danke.” Regardless of this variation, I counted this as only one voice chat type.

Based on the content and observed usage of the statements I coded these as functional, social, aggrandizing, or indeterminate (Table 1). I categorized the chat statements into one of the four categories based on personal experience with how each statement was actually used within the game. (For a complete listing of voice chat statements with their corresponding coding categories, and frequencies refer to Appendix 1). For example, although “All clear” may seem at
first to be a functional statement, I observed it used almost exclusively as a form of bragging when a player had successfully killed a number of opponents usually in a confined space such as a hallway. Thus I coded “All Clear” as an aggrandizing statement. Commands that were ambiguous or did not have an obvious dominant usage, I classified as indeterminate and were not included in the computation of relative frequencies.

Functional chats are used to communicate information among players that is useful for successfully competing. Aggrandizing chats are used to either hype one’s own team and/or disparage the other team. The best example of this is the global chat “The enemy is weakened” often used by a player after killing several members of the opposing team. Social chats are those that neither communicate information specific to the tasks at hand in the game or self-promote or insult others. These messages include basic greetings like “Hello” and “Goodbye.” I did not include the voice chat messages of “yes” and “no” because they could be used differently in a variety of contexts. Statements such as “yes” and “no” with various meanings were coded as indeterminate.

The unscripted chat consisted of a wide variety of messages. I read through the master list of unscripted chat and developed categories for analysis based on the content and subject matter of statements, as well as keeping in mind the overall objective of examining cooperation and competition. The analytical categories for unscripted chat are as follows: There were statements of locations used for example by a wounded player to inform a medic in order to speed their assistance. There were aggrandizing statements that either insulted the other
team or opposing players. There was game commentary that was not aggrandizing such as the amount of time left in a match or relaying actions and events to other players. There were complementary statements. There were statements and requests related to technical aspects of the game such as how to insure sound effects were working properly. There were statements of real-life actions such as "lol" which is an acronym commonly used in instant messaging for "laughing out loud." There were discussions about topics totally unrelated to the game. Finally, there were statements that were not understandable. These could have been the result of accidentally initiating the unscripted chat command or possibly statements that others would understand but whose meaning eluded me.

Ethical Considerations

My research follows the ethical recommendations specific to different types of computer-mediated interaction as discussed in Mann and Stewart’s (2000) Internet Communication and Qualitative Research handbook as well as the most recent guidelines of the Association of Online Researchers (Ess et al. 2002). These recommendations include heightened sensitivity to online personas and identities, heightened consideration of the anonymity of research subjects, ramifications of the impossibility of acquiring informed consent in specific computer mediated interaction venues, and appropriate and context-dependent assumptions of private and public communication.
I did not engage respondents in face-to-face interaction; all the information I gathered was publicly available to anyone running a copy of RtCW. The recording of games is common netiquette within this community and thus appropriate based on the guidelines for conducting internet research (Mann and Stewart 2000). Since player aliases were stored electronically for analytical purposes, I protected this data by storing it on an external hard drive that will be physically separate from the computer used for analysis. Names were changed in all screenshots to further protect the privacy of players. Upon project completion, this hard drive will be overwritten and erased by formatting the drive.

Researching Online

Online sociological research is nascent particularly with regard to anything other than MUDs (Multiple User Domain) and MOOs (MUD, Object Oriented). A MUD is a computer program which users can log into and explore. Each user takes control of a computerized persona/avatar/incarnation/character. You can walk around, chat with other characters, explore dangerous monster-infested areas, solve puzzles, and even create your very own rooms, descriptions and items (Cowan and Smith 1999).

MOOs are based on a variation of the MUD computer program that are communicated with in a different programming language (Cowan and Smith
I think some of my experiences attempting to research online social interaction might be useful to other researchers.

One of the advantages of attempting to research internet game players is that it is always possible to simply stop playing for a moment and write down something of interest. This may result in marginal sacrifices within the game but maintaining focus on the overall objective of research can help to restore the importance of doing this. Also, no one is going to object to you doing this on grounds of privacy or alter their interaction with you because they are suspicious or otherwise concerned about your note taking. Of course there are still ethical considerations. For past ethnographers, especially those who have been covert, this is quite a luxury.

In my particular instance, while conducting my research I discovered that it was possible to record game play for later review. Game play recording was so common that it was embedded in the final official release of *RtCW*. Clans began requiring candidates to submit personal highlight compilations of game play as a requirement of applying for membership.

In contrast to real-life ethnographic research this is a somewhat different experience. Imagine being able to record not just video but a complete three-dimensional reproduction of the interactions of your subjects. This is done without threatening their privacy since their chosen pseudonyms are recorded, without recording likeness, internet protocol address, or other identifiable characteristics. However, in exchange recording and reviewing these recordings requires a considerable investment of time and energy. The popularity and
widespread use of this feature is likely to induce game designers to continue to make it more easily accomplished. Considerable computing power and internet bandwidth is already required to adequately play the game and recording gameplay requires still more. File sizes are large and there is a technical process to be learned in order to be able to actually get files to play. Despite many nights of frustration and many failed attempts before success, I consider this ability to record and review the game play essential to the completion of this project. Moreover, this would potentially allow researchers to make available most of their raw data used for analysis, without compromising anonymity other than player pseudonyms which could also be hidden with relative ease. There is now even the possibility within RtCW of recording “clean” game play, without the various on-screen data displays. By making raw observational data publicly available, other people would be able to corroborate statistics, offer other possible interpretations, confirm or refute analyses, and a myriad of other such possibilities.

There is a huge amount of data that may be considered relevant to any particular game genre, a specific game, game community, or even a specific server for one game. Such practical considerations led me to narrow my focus from a broad comparison of various first-person-shooter games to a case study of one particular game’s subculture to a structural analysis of one game coupled with content analysis of the in-game text chat among players. One particular game’s subculture might have included the game players, LAN parties, in-game interactions, the in-game text chat, associated websites devoted to the game,
game modifications (mods) designed by players as well as comparisons of the various officially released versions of the game. Even during the course of my brief study the game went through three officially released versions which varied enough to significantly affect play and website discussions among regular players. In addition toward the very end of my data collection the game publisher released an official spin-off expansion of the game that resulted in a marked increase of comparison discussion between the variation and the original game, as well as a renewed surge of players and play. As Gergen and Gergen (2000) note, “the temporal relevance of a research study is increasingly circumscribed, and the half-life of cultural analysis increasingly shortened” (p. 1040). With regard to videogames and player subcultures this seems to be further compounded.

Players were thoroughly suspicious of me when I instigated contact with them individually. I did successfully contact several players over email but was unable to get them to answer an email or internet survey. Twice I received highly dubious and skeptical responses to my approach even after I identified my real life name and university affiliation. The problem of anonymity online works both ways. For future attempts I believe it would work better to develop a website associated with the research at the earliest possible stage of the project. Ideally this website would include information about the researcher, the project, and include forums where people could discuss the work. Castronova (2001) posted an economic survey on his website during his research on the game EverQuest and was able to successfully solicit a huge number of responses by making such requests within the game itself. Gergen and Gergen (2000) suggest the idea of
developing "conduit methods"-that is, technological efforts bringing into public visibility the voices, opinions, needs, and aspirations of various marginalized or suppressed groups of the world—would also be favored" (italics in original p. 1041). Such a website could be a conduit method for online research. Although online gamers are not considered a typical marginalized or suppressed group, there does remain some mainstream social stigma associated with many of the games either because of content or media associations between online games, and violence. Finally, there is also a preconception of players of these games in particular, as geeks or nerds.

**Conclusion**

This research is a primarily descriptive account of the experience of playing these games, highlighting cooperative and competitive interactions supplemented by analysis of the in-game chat among players. Once a standard methodology for characterizing and categorizing experiences within individual games has been established, enough videogames may be analyzed to facilitate comparisons and general conclusions about videogame experiences.
CHAPTER 4

DATA ANALYSIS

In this chapter I employ the methodology described in the previous chapter to analyze how the design of *RtCW* influences cooperation and competition among players.

Cooperation and Competition

*An Even Playing Field*

When the game is first executed one is presented with a list of all available servers that may be sorted by server name, map name, number of current players with maximum number of possible players in parentheses, ping, and whether or not the server requires the use of the anti-cheat software *PunkBuster* (Figure 3).
The ping number indicates the speed of communication between one's computer and the server. Since information flow is integral to game performance, a low ping is desirable. The "ping" name is based on the sonic ping sound used in submarine radar systems.

Upon successfully connecting to a game server, by default players begin as a spectator who is not associated with either team and cannot participate in combat (Figure 4).
This allows players who have just joined a server to preview each team prior to selecting one to join. Team members are listed in either of the two large boxes with the headers Axis on the left and Allies on the right (The appearance is identical to an actual game but all of the player names here were created specifically for this presentation to preserve anonymity). This facilitates players being able to play with or against specific other players. It also makes it possible to join the leading or losing team, and whether the team is ahead or behind can be ascertained by the team point totals that are displayed in this same screen.

All players may either join the Axis team or the Allied team in order to participate in the game. Alternatively one may remain a “Spectator.” As a Spectator, players have no influence on the game itself but may move throughout the game world observing the action. This does allow one to observe the game
without becoming involved with the success or failure of either team. However, Spectators do occupy one of the available positions reserved for use by players on a particular server. So if a server is full, spectators will be asked to join a team by other players, forced to join a team by the server administrator, or disconnected from the server.

There are two structural arrangements that help insure approximately equal teams. First, players joining during the course of a match are given a reduced number of lives or are forced to wait until the next round begins depending on how far along the round is when they join. The following chat exchange is the reaction of a player who did not expect to have a reduced number of lives once he or she had the server joined late into a match.

WhiteWidow (Allies): well thats jusyt fucking great.....I only got one goddamn life admin ????????????????" [Server Administrator]

Curious George (Allies): this is a max lives server. lol. you joined late. [Maximum lives; laughing out loud]

WhiteWidow is complaining to the server administrator because he or she was not expecting to have only one life upon joining the server. The server administrator explains that this prevents new players with full lives from joining a match toward the end where other players had already lost lives.

Second, players must join teams so that they remain as even as possible in terms of number of players. All of the servers from which data was gathered

For all the examples used to illustrate points, the chat messages are placed in italics and include a player name (altered to preserve anonymity), their team in parentheses, and the text message exactly as it appeared in the game log including misspellings, slang, and other errors. Expanded acronyms and slang explanations are included in brackets at the end of each message. Longer exchanges are separated from the rest of the text.
forced teams to be balanced by monitoring the number of players on each team. If one tried to join the team that had more players a message was displayed saying “Axis team has too many players.” Teams could still become uneven if more players on one team leave the server before others join. Because of the server requirements that players join in such a way as to even teams, it was rare for teams to be unequal by more than three players. There were very few comments in the chat about uneven teams, about 1% (n=16) of the unscripted chat. This may be because of the server requirements that restrict team imbalance. The premium placed on even teams within the game culture is under-represented by this number. Note the emphatic appeals for even teams in the following chats.

MikeMyers (Allies): ok, even teams you horse’s asses
Hector (Axis): as new people join it will even out
MikeMyers (Allies): i guess ill leave thebn

Hoover (Allies): teams
Yoda (Allies): someone come over
BeetleJuice (Allies): pleeeaaase
Spasmatic (Axis): teams please

MikeMyers is willing to leave the server because of the uneven teams. This is an unusual response since his leaving a team that already has fewer players compounds the situation, but does still demonstrate the strength of his dislike of the situation. In the second example, several players back up the first request for even teams including a player from the advantaged team.

For most multi-player internet videogames in general, and RtCW in particular, there is an entire complementary computer program that monitors players and enforces rules so specific that they must be monitored by computation. For
RtCW, this program is *PunkBuster Online CounterMeasures*. Fair competition is so important to the players that this program was updated seven times during the year 2002 in response to players continually developing new cheating methods. The use of “punk” in the title of this program is another indicator of the low opinion of cheaters in the game culture. In order to join in and play on many servers players must be running the most recent version of *PunkBuster*.

*PunkBuster* sets very specific limits for a number of player variables for example speed, helps standardize connection speeds, and insures that players are not using “aimbots”. Aimbots are supplementary programs that automate the targeting of opposing players.

These structural requirements and subcultural norms work to maintain balanced circumstances for the game.

*Competition: Us Against Them*

Prominent game structures that shape interactions are, the World War II context, and the placement of players on two opposing teams. The two teams are labeled simply the Axis and the Allies. If there are three or more teams, two teams can partner and or cooperate against the others. This would drastically alter the game play. The game thus provides a thematic motivation for combat via the war context, as well as structural motivation for combat, since there is forced opposition to those players who are not on one’s own team.

The stated general objective of the game involves one team advancing on the territory of the other team in order to acquire an object of value and return it to a particular location. The primary example of this is the “Beach” map where the

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Allied team advances on a mountainside bunker controlled by the Axis. The Allies mission is to steal war documents that are in the basement of the Axis' bunker and run them to the radio room. The Axis team tries to prevent the Allies from accomplishing this. If the Allies are able to get the documents to the radio they are proclaimed winners by the program. If the Axis team is able to stop this from happening they are proclaimed the winners. By achieving either of these respective objectives the computer ends that round of play, identifies the winning team, and presents a list of players with corresponding scores (Figure 5).

Figure 5. Match End Screen With Winning Team Declared.
Alternatively, there are individual scores that are used by players as markers indicative of individual leaders and used as a source of bragging rights and status.

Points are a primary structural method of encouraging competition. Points are kept both individually and cumulatively for each team. This creates a situation where players may compete against others on their own team, others on the opposing team, or collectively against the other team for highest point totals. Points are awarded for attacking the opposing team, accomplishing tasks that aid the progress of one’s team, and for assisting players on one’s own team. As a player, other than the limited role of spectator, there is little possibility of remaining neutral in a game. Neutrality is essentially impossible. Since there can be only a limited number of players, doing nothing is still a liability to that team because it prevents another active player from participating. Doing nothing is stigmatized by other players because the immobile player is not contributing to the advancement of the team. One prime example of this norm being enforced occurred when a player remained immobile for no more than a minute at the start of a game and another chatted, *Canis Lupus (Allies): AKIRA WHY ARENT U DOING ANYTHING??!!!!*, with all capital letters used for emphasis as though shouting. Competitive participation is normatively enforced by other players.

Shooting and killing a player on the opposing team increases the shooter’s score and thus also the score of his or her team. When playing as a Medic, reviving a fallen team member also results in an increased individual score. There are also penalties for harming one’s own team. By killing a team member a player is penalized points and can, in this way, achieve a negative individual
score. Killing a member of one’s own team is referred to as *Team Killing* which for chat is usually shortened to simply *tk*, *tking*, or *tker*. Although the structural penalty of losing a point for each team kill exists, the normative reaction to this is one of the most intense in the game. Although a relatively small number of comments were made about team killing in this sample, less than 1% (n=17) of unscripted chat, the intensity of the comments demonstrates the importance of this behavioral norm. For example, *VooDoo (Allies): No more revives for you tking fucks* [team killing], *VooDoo*, a Medic, is stating that he is no longer going to revive teammates, at the cost of not earning the corresponding individual points, as well as the stigma against Medics who do not revive other players (because he has been killed by team members).

The only other option, helping the opposing team, is not specifically attached to a penalty. For example, by placing dynamite in strategic locations a player receives points for assisting one’s team. If another player on that same team disarmed the dynamite, aiding the opposing team in defending their artifact or territory, that player is not penalized points. These types of behaviors, that do not have structural penalties, may reveal the use of other sanctions such as chat criticism of the offending player. Two separate chats illustrate this point. First, “*Lt. Dan (Allies): wtf, Gunner lay your own tnt* [what the fuck lay your own dynamite]” Here Lt. Dan was killed before he could arm the dynamite that he placed, and Gunner was going to finish the job and would have received the points. Lt. Dan was objecting to this. Second, “*Ishmael(Allies): tk him f it cow* [team kill him fuck it].” In this case, Ishmael is instructing another team member to kill a team member who is disarming the dynamite. A player might disarm their own team's
Mr Hyde (Axis): GOSH IT SEEMS I CAN SCORE EXORBITANTLY HIGH JUST BY STAYING IN THE WAR ROOM
Hellboy (Axis): Dude no way I never heard of that
Punisher (Allies): no kidding 400 points? sounds like someone camped a bit
Rage (Axis): no shit, why don’t you try playing for real
Rage (Axis): instead of sitting in war whole game [war room is the default documents location]

In this second exchange Punisher is chastising a player as artificially inflating his or her score by “camping” near the documents. Rather than being lauded for an exceptionally high score the player is denigrated as not “really playing” by Rage. Camping here is stigmatized as selfish and not fully supporting the efforts of the team. This blatant resistance to point determinants demonstrates the existence and importance of non-structural criteria for evaluating players.

The final official version of RtCW included much expanded structural methods of commendations and condemnations for players. There is a warm-up round of thirty seconds in between each official match. During this time players can perform all normal actions without consequence. For this newer version, during this time a marquee appears naming the player of the last match from either team to have killed the most opposing team members, to have revived the most players, to have given the most ammo, all of which are commendations. There are also marquees of infamy for the player that died the greatest number of times and the player that killed the most team members. This allowed for a much broader range of achievements within the game since one could gain recognition as a top performer at a certain role. These proclamations immediately became reference material for players to praise and insult themselves or other players. For example, someone who plays as a Medic would rarely have killed the most people, spending more of their time in the supportive role of providing health and...
dynamite, either in order to re-arm it themselves in order to receive points, or to sabotage the team's progress. This comment highlights the importance of the overall team effort, since violating the norm of not killing a team member is being suggested in order to punish the offending teammate.

A prominent example of normative criticism highlighting the premium placed on competition occurs with the practice of "camping." Camping refers to the practice of sitting in the war room and waiting for the Allies to grab the documents and retrieve them in order to earn the extra points. The documents always begin in the same location for each game map. The Allied players are the only players that can transport the documents. An Allied player acquires the documents by running over them. At this point, everyone on the server sees a flashed bulletin that "The Allies Have Stolen the War Documents." If the Allied player who has the documents is killed the documents remain at the location where that player died until another player touches them. If it is an Axis player the documents are returned instantaneously to the War Room. If it is an Allied player, that player acquires the documents and can move toward the objective location. An Axis player who returns the documents is rewarded with the most points of any single action in the game. The alternative would be trying to confront the Allies at the furthest point of advancement possible. The comments against this practice range from dismissive Seymore (Axis): Leroy you dang camper to insulting Enemy (Allies): Scooby-Doo you doc campin whore. Seymore's consternation, as well as Enemy's insult, shows that camping is a subcultural norm violation. The following two exchanges further illustrate the stigma associated with camping.
revives to others, but could still be acknowledged and commended by team members for consistently being the player with the most "revives" and the most health given. This often took the form of simply stating the fact. "NinjaMan (Axis): Yeah most revs again! [Revives]" At the same time this allows for another source of competition between teams as players of specialty roles, on both the same and opposing teams, are pitted against one another.

The multiple structural methods used to acknowledge accomplishment creates an environment conducive to increased disagreement about winning and losing. Heated discussions about these various acknowledgements illustrate the competitive environment of the game. The following exchange is an example of these debates.

SantaClaus (Allies): Awesome we ended up with the most points
Hibbert (Axis): Who cares about pts you didn't steal docs
Clytemnestra (Allies): Yeah but most points so we still kicked your butts
Boomer (Axis): Stfu pts don't mean anything AXIS WIN

The Allied members are emphasizing the team score totals as a measure of team ability, and indication of better performance than the Axis for this match. The Axis members are pointing to the fact that the Allies were not able to accomplish the stated mission of the match which was to steal the documents and take them to the Radio Room. Boomers' comment with the remark AXIS WIN in all capitals refers to the banner that appears at the top of the screen once the match is ended that declares either the Axis or the Allies winner. Altogether, there are a number of measures of skill and performance within RtCW. Disputes over these various measures of performance demonstrates the intense competition among players.
Competition permeates RtCW. Teams compete with each other as they attempt to accomplish the game objectives that are based on combat, and presented within the context of World War II. The program keeps track of a number of measures of performance, most prominently points, and presents the results of these to players. Players on each team try to have the highest individual score for their team as well as for all players. Players of the same class compete among all other players of that class for recognition at the end of each match as the best player of that class.

**Structural Cooperation**

As described in the literature review chapter, the most frequent assessment of action internet games such as RtCW is that they are violent and foster aggression and unhealthy competition. It is more difficult to argue this characterization now that it is possible to play online with a number of different people as a team. Multiple player capability has become a standard component for this genre of games. The multi-player version of RtCW structurally necessitates and reward constant and complex cooperation among team members. These structural encouragements are demonstrated and reinforced by normative communications between players.

Examples of this include warm-up round communications about strategies such as requesting cover fire for engineers who must dynamite a wall to gain access to the opposing team's base, organization of team roles so that no role is over-represented or un-represented (enough Lieutenants, Medics, etc.), progressing against the enemy in small factions that contain a Lieutenant to provide ammunition, a Medic to provide health, and soldiers to provide intense
firepower. When one player acquires the guarded artifact, most players assume protective roles and often sacrifice individual lives and achievements to insure the success of the team. Despite the aforementioned disputes about criteria for winning, teamwork is structurally reinforced as the team as a whole is declared the winner by the computer at the end of the match rather than any one individual player (See earlier Figure 5). All manner of strategic activities and possibilities are communicated and encouraged by various players during game play.

The high level of cooperation involved in RtCW is further evidenced by the emergence and development of teams, known as clans. These clans consist of players who regularly participate on the same team. Much clan game play is limited to clan vs. clan scheduled matches. This is enforced by providing only certain players with the internet address and time of each match. However, it is also very common to find several members of a clan playing on a public server on one team. I never observed clan members playing on a public server who joined opposing teams. If one team was full of players then the clan member forced to join an opposing team would switch teams at the earliest possible opportunity. One night a significant number of players from the Serial Killer clan were playing on a public server. This elicited the following chat:

Mental Patient (Allies): wow the axis are colorcoded
McBain (Allies): is this Serial Killer team night?
Fuzzy Wuzzy (Allies): WHATS UP WITH THE PURPLES AND BLUES???
The Shadow (Axis): didnt even notice
Gangsta (Allies): whatever!
Arthur (Allies): its like bad news bears
Ivan Drago (Allies): for the love of god@!!!

The two chats about color are references to how clan members indicate their membership by formatting their names in similar colors. The one comment by
McBain, who is a *Serial Killer* clan player, is met with disbelief. The *Bad News Bears* is a movie about an underdog little league team and this player is referring to it as similar to the situation on this server where a group of random players compete against an organized team. The final comment refers to the difficulty related to the uneven match-up (the at sign appears to be simply a typographic error).

Although there is no structural constraint, teams must maintain some sort of balance regarding how many of each type of player (i.e. Medic, Lieutenant, etc.) is on the team in order to function effectively. If a team has no Lieutenants progress is very difficult since ammunition is quickly used up and is difficult to replenish just by picking up the leftovers of fallen teammates or foes. Such a balance is usually rapidly achieved through team self-regulation. After an incarnation of a team without enough Lieutenants, for example, it becomes painfully obvious that more are needed and players will simply state as much via text messages. “Need more lieutenants” is a short, simple, and common abbreviated message used to indicate this need. Over the duration of my research, players became increasingly skilled at using player classes to the advantage of the team. This progression became so pronounced that by the end of my research this balancing of player classes occurred without discussion. Players simply recognized the need for a specific class and changed classes to fill that need accordingly.

As the general level of player ability increased over time, teams had to coordinate their efforts in order to have any level of success. During warm-up, prior to the official start of a match, players would organize to provide cover fire.
for other players, to coordinate the actions of several players necessary to lift
players over walls, so that there would be an evenly distributed offense or
defense. Often this type of coordination occurred without explicit communication.
This self organization without explicit communication has been observed in other
venues.

Kevin Kelley (1996) describes a similar phenomenon he observed at a
conference presentation by Loren Carpenter. Almost 5,000 people were given
paddles with one side green and one side red. The paddles were held in the air
so that either the red side or the green side was facing the front of the
conference room. A giant video screen displayed a game of Pong that everyone
could see. Those people who sat on the left side controlled the left pong paddle
and those who sat on the right side controlled the right paddle. This is all
mediated by a computer program that was fed by a real-time camera pointed at
the audience that was very sensitive to the red and green colors of the paddles. If
more paddles held by people on one side showed red the corresponding pong-
paddle on-screen moved up and if more green paddles showed the pong paddle
moved down. Based on the number of red and green paddles on each side the
computer instantaneously calculated which way each pong-paddle should move
and moved it. The 5,000 people were able to play an increasingly fast game of
Pong via this method without otherwise communicating. The same group also
flew and landed a plane in a flight simulator program. The left side of the
auditorium controlled the roll of the virtual airplane and the right side controlled
the pitch. Kelley (1996) referred to this phenomenon as “hive mind.”

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Hive mind was a phenomenon I observed and participated in as I played RtCW. This became especially true over time as the overall skill level of all the players improved. Players would frequently perform cooperative behaviors that used to require explicit coordination via text chat. For example, at some point players discovered that a main wall in the game, that previously had to be dynamited in order to pass to the next area, could be circumvented by having one avatar crouch, a second avatar jump on the first's "shoulders", and the first would then stand allowing the second avatar to jump over the wall. When this technique was first developed, players would organize it by text exchanges about who would crouch and who would go over. With time this technique occurred in almost every match without a single explicit coordinating communication. I experienced instances of "hive mind" at various other times, particularly during intense confrontations where several players would function with great skill and coordination, and without explicit communication. In this context I was not able to devise a way to empirically demonstrate this phenomenon; however it was something I could qualitatively discern with experience. I found the times that this qualitative shift did occur while I was playing, were among the most pleasurable and appealing experiences of playing the game. Methods are being developed to empirically test for this phenomenon. It is more generally referred to as emergence (Holland 1998). As of yet these methods have not been applied to a videogame and were beyond the scope of this project.
Player Roles

There are four possible player roles: Soldier, Engineer, Medic, or Lieutenant. Throughout the game a player may select any of these roles but this change is only effected when the player next dies and is spawned. This allows for strategic changes as matches progress.

There are relative strengths and weaknesses for each class of combatant. Of utmost importance for this discussion is how these strengths and weaknesses influence player interactions. The role of Soldier involves the least amount of interaction with other team members. The Soldier may use all of the available weapons in the game but is unable to directly assist other players. In contrast, Lieutenants provide ammunition to other players and Medics provide medical assistance to other players. Thus, both Lieutenants and Medics have greater cause for cooperative interaction with other team members. What is expected for each of the player roles is drastically different. A wounded player expects that a nearby Medic will assist them by reviving them with an injection shot (Figure 6) or offering them packets of “health” (Figure 7).
Likewise, players who have low or no ammunition expect that available Lieutenants will provide them with ammunition. Again this is structurally reinforced as Medics and Lieutenants receive points for offering health or ammunition, respectively, to other players. This is an example of how play mechanics encourage team member cooperation. This is further reinforced by the community of players. Text chat examples illustrating this norm include:

\begin{itemize}
\item Jorge (Allies): Conan isn’t giving us health, can we trade one of your guys for him?
\item Lunatic (Axis): I neeeeeeeed a medic!
\item Special Ops (Allies): I have to say, gargoylle is the worst medic ever
\item Carcinogen (Allies): ?
\item Special Ops (Allies): he stood in front of me and typed instead of reviving
\end{itemize}

All three comments illustrate the expectation that Medics will give health and revive wounded players. This again is encouraged by the fact that when
wounded players cannot move, they have the opportunity to type out such messages without sacrificing game performance.

The exchange of ammunition is done via iconic transfer of packets. These packets are marked with an icon of a shell round. A Lieutenant selects this from potential media for exchange and strikes the appropriate key to extend it. If the Lieutenant is in close enough proximity to the other player that player absorbs the package, and their ammunition is increased a specific amount depending on the type of weapon they are using. If the Lieutenant is not in close proximity to another player, the iconic package is simply left on the ground at that location. At this point any other player, including players of other teams, may acquire this ammunition. This is one of the primary examples of cooperation among players. Requests for ammunition accounted for 6% (n=1,279) of all voice chat.

Similarly a Medic provides health points to another player by selecting the health packet among his objects, and selecting his trigger key to present an iconic package with a gray red cross plus on it to another player, or to leave it on the ground. Once players are reduced to zero health points they become incapacitated. Wounded players lie on the ground, and although they can still talk, they cannot move. A Medic can 'revive' downed players by selecting a syringe from their choices of use objects and triggering this syringe into a target on the downed player's chest. This revives the player to a certain level of health points and they once again become mobile.

In RlCW there are a number of different stages of death, and a specific descriptive vocabulary has gradually been developed. Death is a gradual constant process rather than an absolute distinction. Once an avatar is injured to
the point where his health score falls below a defined threshold, the avatar is “wounded.” This is noted in the text of Figure 8

![Wounded Player Screen Close-Up.](image)

Figure 8. Wounded Player Screen Close-Up.

Once wounded players can no longer move or shoot they are still able to issue voice chat commands and often this is the case as players call for Medics to come and revive them. Requests for Medics constituted 15% percent (n=3,153) of all voice chat. This is a prime example of cooperation among players. Without this stage of diminishment this cooperation would not occur.

It is possible to be harmed to this extent and revived an infinite number of times. However if damaged beyond even this threshold, a player will “die” and enter into “limbo,” alternatively referred to as the “reinforcement queue.” A player may also be forced into limbo by another player causing them additional harm. Doing this additional harm to a player, results in that player moving from a state of injury into limbo for reincarnation, is referred to as “gibbing.” Being gibbed is similar to being placed in a penalty box in hockey. One is still part of the team but unable to participate for a period of time. During this time players may adopt the
perspective of the other players on their team. The text in the top left corner of
Figure 9 explains that this player (currently in the reinforcement queue) will be
spawned in 7 seconds and that this player is currently following Heinous Harry.

![Figure 9. View When Following Another Player.](image)

In the game, once a player is gibbed he or she loses one life. For example, the
player shown in Figure 9 has twenty two lives left as indicated by the number
following the multiplication sign to the immediate right of the helmet icon. After a
period of time all players who have died, but still have lives left, will “spawn” at a
specific location with a new life. Spawning is essentially the reincarnation of the
players, and a new opportunity to head back into play.

It is possible for server administrators to give players unlimited “lives” on a
server. This is very uncommon since limiting lives is one of the primary
constraints that rewards skill. Given unlimited lives there is significantly less incentive to perform well. The only penalty for dying is the points an enemy player receives for the kill, the temporary weakening of the player's team, and the time delay until players are reincarnated. In games where players are given a limited number of lives being killed or otherwise dying is the loss of one life. Simultaneously this severely limits cooperation since the incentive for Medics to revive wounded team members is significantly reduced. The incentive of wounded players to wait for a Medic is also reduced since they can simply enter into limbo and begin anew with the next spawn.

When Medics revive Lieutenants it is customary to provide the Medic with ammunition. When there are unlimited lives and minimal incentive for team members to be revived this severely limits the number of occasions that this exchange can take place. This custom can also be seen when a Medic brandishes a packet of health to a wounded Lieutenant, and in response the Lieutenant will provide the Medic with ammunition or vice versa. The key is that merely displaying the packet is enough to instigate the exchange of health for ammunition. This can be considered enacting a norm of reciprocity or brokering a simple exchange of goods. However, the scarcity of both items is required for each to acquire a value that can then be used for barter. Without a limitation on lives, health is considerably less scarce and consequently not subject to trade. With the removal of one good, in an economy of two, there is nothing to trade for, and so both currencies are deflated. Ultimately this drastically reduces the cooperative interaction among players. This is similar to what Costranova (2001) observed in the virtual economy in the game EverQuest. "These social
relationships are essential, and they emerge under the same kinds of circumstances as required in Earth societies: two people with complementary abilities or resources have an incentive to engage in mutually beneficial trade" (Costranova 2001:13). Within *RtCW* there is an additional overarching incentive for cooperation among players, which is the progress of the team. The fact that players can change roles throughout the course of a match is thus important because any team player may have become a Medic or Lieutenant and be able to reciprocate previous assistance.

Once a player has lost all of his or her lives he or she enters into the final stage of death in *RtCW*. At this point the player is barred from playing until the next match begins. Matches end only when the allotted time has expired or one team manages to conquer all of the territory or successfully transport the objective item to the goal location. Once a player has lost all lives they are deemed “skulled.” The term derives from the small skull icon that appears next to the name of the player in the status menu (See Figure 10).

![Figure 10. Close-Up of Skulled Player Indication.](image)

This structural arrangement rewards survival with extended participation time. However, players can still communicate with team members and often try to
provide communication assistance by observing the game from the perspective of other players and conveying relevant information such as where enemy players are located. This reduces the burden to unscripted chat on team members still participating. Time can be precious in battle and unscripted chat may help one's team but also leaves that player vulnerable to attack while typing. This encourages loyalty to the team even once removed from direct participation. Even skulled players begin anew with the next match. Typical matches last ten to twenty minutes. This stage of death is only slightly larger in magnitude than being wounded or losing a life. Each of these stages of death is a different scale of the same process, removal from participation for damage received by the avatar.

Death messages include kills as well as player suicides or players who killed themselves in some other way, examples such as falling to one's death. For the 18 hours of game play that I recorded there were a total of 22,935 deaths. There were a mean 1274.17 deaths per hour of game play or 21.24 deaths per minute or approximately 3 deaths per second.

Since the number of players varies continuously throughout game play so too will the number of deaths. My sample consisted of play during peak hours of participation on servers that were able to maintain 48 players at any one time. Each player controlled only one avatar at a time. There were no computer controlled avatars allowed on the servers I recorded. Generally during the recorded games the servers were full or close to full. More players results in more deaths occurring. It is inappropriate to consider this average an exact number of deaths witnessed by a specific player. Even so, I find this to be a staggering number of deaths. Although I intended to analyze underlying aspects
of the game related to cooperation and competition, not just the violent content, I feel it is necessary to report these findings.

The actual number of deaths witnessed by players is more difficult to determine. This depends on a number of factors, including a player's ability and style. A player who charges headlong into areas of conflict will likely observe more deaths than a player who delays advancing until other players have cleared the path. Although unlikely, it is possible that a player could observe very few or even no deaths if that player were to simply hide in a remote area of the game map. Since this is not really participating in the game, the player likely will get kicked off the server, and there is little motivation to do this rather than just not play or observe. It is reasonable to assume that players are involved in the game to the extent that they kill other players, and witness the deaths of other players. The average number of deaths witnessed will range from a very low number to a number possibly higher than the three per second.

To determine the range or average number of actual deaths witnessed by a player would require considerably more intensive analysis. The perspective of each player would have to be adopted and followed throughout the game with the deaths witnessed and tallied by the observer. A single twenty minute match with forty eight players would amount to sixteen hours of video. This does not account for the likely possibility that intense scenes of combat would have to be watched in slow motion in order to accurately count the deaths. It is perhaps possible to write companion software that could perform this type of analysis but this has not, at this time, been attempted. Nonetheless, there is a significant component of violence in RtCW.
Conclusions

*RtCW* is more than a human shooting range. There are a number of carefully balanced systems of reinforcement and constraint designed to both heighten competition as well as cooperation. The overwhelming majority of both the text and voice chat that occurs is functional and more specifically related to winning the game. There are considerable structural and normative incentives that further focus players toward pursuing the prescribed objective of the game. This exaggerates the boundaries of the teams as social groups, and results in much of the unscripted chat being insulting or conflictive. Much more of the cooperative effort occurs with minimal discussion, and I was unable to devise an empirical measure of the coordination of player efforts.

However, simultaneously cooperation stems out of this competition. Players cooperate with team members in order to more effectively compete with the other team. In addition, the diversity of player classes, and the scarcity of health and ammunition, coupled with point and status rewards, tie team members to one another. The scarcity of health and ammunition facilitates much of the cooperative action of the players.

The overarching component of *RtCW* is the goal-oriented nature of all activity. Every behavior that is structurally rewarded in the game is a task. All smaller tasks are sub-processes that enable the achievement of the overall task required for the team to "win" that round. It was absurd to think of giving health to a teammate for altruistic reasons or the self-satisfaction of saving a virtual life. It is done either to earn points for one's own status or to increase the chances that the team will be able to accomplish its mission. Numerous examples occurred
where a player was not overtly working toward a goal and this resulted in chat harassment from other players demanding that player do actively participate. The ultimate structural indicator of this is disconnection from the server, the ultimate penalty tantamount to exile, for “inactivity”. This holds true even for someone connected as a spectator. Players are compelled to either participate in the feedback system or be summarily excluded.
CHAPTER 5

CONCLUSIONS

*RtCW* players displayed both intense competition as well as intricate cooperation. Players utilized the voice chat commands as well as the capability to communicate with unscripted chat to cooperate and achieve goals, insult opponents, complement team members and engage socially with one another. The most prominent type of cooperation was the exchange of health and ammo. The high demand and limited supply of these items induced players to cooperatively exchange them with other players in order to more effectively compete against others. In summary, within *RtCW* I found players involved in complex interactions that were significantly shaped by the play mechanics of the game. I also found normative expectations of players that amplified aspects of the play mechanics. Normative expectations included constant competitive action against opponents as well as providing cooperative assistance to team members. The expectations for cooperation were most significant for medics and lieutenants.

*RtCW* includes seemingly contradictory situations such as placing players in a war environment of extreme competition, while simultaneously revealing the arbitrary nature of conflicting groups as players are switched back and forth between teams. There is recognition for both individual achievement as well as
an overall acknowledgement of team-oriented success. This simultaneously encourages individual selfishness as well as individual sacrifice for the team. Players are both ultimately confined by the game code as to what is possible to do within the game and are simultaneously allowed the opportunity to anonymously rampage through a war zone. Players sit mostly alone in locations separated by long physical distance and also make friends, join teams, and chat and socialize amongst one another as though they were sitting at the same table playing cards. Playing the game involves minute movements of both hands while seated in front of a computer yet it results in sweaty-browed moments of excitement and fits of angry, frustrated messages. It is a polarizing activity in all of these ways.

While it is necessary to acknowledge the storyline and appearance of videogames, I assert that the underlying structures and logic of the game environment are at least as important. The different stages of death reveal the arbitrariness of, for example, the war scenario of *RtCW*. Rather than the players shooting guns and killing other players, the game scenario could instead be players “shooting” prayers from crosses and “saving” other players. There is no obvious violence, no gory graphics or realistic weaponry, in such a scenario but there is a very similar underlying system of logic. My analysis showed that many factors influence the actions of participants. Seemingly small differences such as the availability of health can result in significant increased cooperation among players even in an environment with intense competition. Players must first have the capability to send complementary and cooperative messages players in order
to do so. It may also be necessary to change other variables to encourage the complementary communication or the cooperative actions. Regardless, the environment of the videogame influences the actions of players within the game, and this must be first understood before we can understand how these messages translate to other effects on players outside of the game.

Bernard McGrane proposes that the most effective aspect of advertising is that people are convinced that it does not affect them individually despite years of proven success at doing just that. “That's one of advertisement's most brilliant accomplishments, to get us to believe that we're not affected by advertising” (Ewen 2001:114). A similar argument applies to videogames. Videogames are generally either considered to be mindless amusement or influential solely in terms of encouraging violent behavior. Dismissing videogames as mindless amusements ignores the fact that engaging in an activity for an extended period of time will have some influence on the participant. Dismissing videogames as only purveyors of violence oversimplifies a complex phenomenon and prevents us from exploring the wide variety of potential influences. Videogames should be explored and better understood by those of us who claim to study cultural activities. I agree with McLuhan's (1994) maxim that the medium is the message. We have a great deal of work to do in order to gain an understanding of the medium of the videogame.

Neil Postman (1985) argues that the medium of television removes the possibility of contradiction because it is a medium without context. The very medium of television presents all of its content to the viewer in one constant
stream. "Contradiction, in short, requires that statements and events be perceived as interrelated aspects of a continuous and coherent context. Disappear the context, or fragment it, and contradiction disappears" (Postman 1985:109). Postman believes that over time this removal of context has resonated to have broad implications; "transforming our culture into one vast arena for show business" (Postman 1985:80).

I am only addressing one specific videogame, in one genre, rather than the entire medium. Videogames have not yet dominated American culture to the extent of television, thereby limiting claims of broad cultural influence. Although my study was not entirely effective it did demonstrate some of the complexity of this videogame and the genre of FPS action videogames. Given the dearth of existing research in this area it is necessary to begin attempting to develop appropriate research methods. My analysis at least provides an example to others that may be useful for crafting more effective approaches.

Indeed I am not alone (Ye 2004) in claiming that videogames, at least action videogames, are a major new form of computer-mediated communication. Postman (1985) further argues that "a major new medium changes the structure of discourse, it does so by encouraging certain uses of the intellect, by favoring certain definitions of intelligence and wisdom, and by demanding a certain kind of content-in a phrase, by creating new forms of truth-telling" (p. 27). This is the crux of what I have attempted to address for RtCW as an example of the new medium of videogames. Beyond cooperation and competition, within RtCW, truth is achieving goals. Achieving goals requires active participation. There are point
rewards for assisting other players by offering them health or ammunition; player classes have complementary abilities which encourages cooperation with greater likelihood of progress within the game; and the subtraction of points for harming other team members including the possibility of removal from the game for doing excessive team damage. In sum, throughout the game, actions are directly tied to point rewards either positive or negative. Accumulation of points is desirable and the repetition of actions is required to earn them. All effort is directed incessantly at accomplishing objectives. There is no room for contemplation or reconsideration. Here efficiency is the always encouraged. Long deep thought will get you killed. Solutions are discovered by trial and error rather than logical analysis. Skill is measured numerically and is dependent on the ultimate mastery of manipulating what amounts to a few variables in a very specific feedback system. While these observations did not form into a cohesive conclusion, I assert a more general understanding of the medium of the videogame will require a number of studies of specific videogames from a variety of videogame genres.

The study of the effects of television evolved over a similar path. The first mention was in 1952 and was limited to concerns about violence. Violent content has remained the topic that overwhelmingly receives the most attention of investigators. However, a minority of media scholars (Mander 1978; Postman 1986) have introduced issues regarding other influences of television that are also important. Postman posits that television disrupts the cumulative, logical progression of thought that is inherent in reading. Rather television presents both related and unrelated ideas as continuous and this erodes analytical, rational
thought. The study of videogames is only beginning, but perhaps conclusions of similar importance will one day be reached if we move on to a later phase of analysis where more than just violence is considered.

Finally, beyond understanding the medium of the videogame there is a great deal of other potential for this type of computer-mediated communication. There are the beginnings of a movement to harness the appeal of videogames and construct the underlying logic of videogames for more traditionally educational purposes (Gee 2003). Achievements in this area will contribute to the work of others who are trying to consciously create videogame environments with educational messages beyond familiarity with warlike conditions.

I have made every effort to dispel the notion that videogames in general, and combat videogames specifically, are unimportant, impotent pastimes. This is my contribution to an emerging movement toward serious sociological analysis of videogames that are a significant component of the socializing media landscape.
### APPENDIX 1: CHAT FREQUENCIES

**Table 2. Coding and Frequency of Individual Voice Chat Statements**

<table>
<thead>
<tr>
<th>Number</th>
<th>Voice Chat Statement</th>
<th>Communication Type</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Path Cleared</td>
<td>F</td>
<td>11</td>
<td>0.05</td>
</tr>
<tr>
<td>2</td>
<td>Enemy is weakened!</td>
<td>F</td>
<td>481</td>
<td>2.33</td>
</tr>
<tr>
<td>3</td>
<td>All clear</td>
<td>A</td>
<td>181</td>
<td>0.88</td>
</tr>
<tr>
<td>4</td>
<td>Incoming</td>
<td>F</td>
<td>314</td>
<td>1.52</td>
</tr>
<tr>
<td>5</td>
<td>Fire in the hole</td>
<td>F</td>
<td>289</td>
<td>1.40</td>
</tr>
<tr>
<td>6</td>
<td>I'm on defense</td>
<td>F</td>
<td>13</td>
<td>0.06</td>
</tr>
<tr>
<td>7</td>
<td>I'm on offense</td>
<td>F</td>
<td>7</td>
<td>0.03</td>
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<td>8</td>
<td>Taking fire</td>
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**Requests**

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<tr>
<td>9</td>
<td>Medic!</td>
<td>F</td>
<td>3153</td>
<td>15.26</td>
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<tr>
<td>10</td>
<td>Ammo</td>
<td>F</td>
<td>1279</td>
<td>6.19</td>
</tr>
<tr>
<td>11</td>
<td>I need backup!</td>
<td>F</td>
<td>177</td>
<td>0.86</td>
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<tr>
<td>12</td>
<td>We need an engineer</td>
<td>F</td>
<td>51</td>
<td>0.25</td>
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<td>13</td>
<td>Cover me</td>
<td>F</td>
<td>147</td>
<td>0.71</td>
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<td>14</td>
<td>Hold your fire</td>
<td>F</td>
<td>64</td>
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<tr>
<td>15</td>
<td>Where to?</td>
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**Commands**

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<tr>
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<td>Follow me</td>
<td>F</td>
<td>46</td>
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<tr>
<td>17</td>
<td>Let's go</td>
<td>F</td>
<td>213</td>
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<td>Move</td>
<td>F</td>
<td>163</td>
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<td>Clear the path</td>
<td>F</td>
<td>80</td>
<td>0.39</td>
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<td>20</td>
<td>Defend our objective</td>
<td>F</td>
<td>244</td>
<td>1.18</td>
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<td>21</td>
<td>Disarm the dynamite</td>
<td>F</td>
<td>27</td>
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**Talk**

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<td>Yes (Team)</td>
<td>I</td>
<td>819</td>
<td>3.96</td>
</tr>
<tr>
<td>23</td>
<td>No (Team)</td>
<td>I</td>
<td>944</td>
<td>4.57</td>
</tr>
<tr>
<td>24</td>
<td>Thanks/Danke</td>
<td>S</td>
<td>2633</td>
<td>12.74</td>
</tr>
<tr>
<td>25</td>
<td>You're Welcome</td>
<td>S</td>
<td>170</td>
<td>0.82</td>
</tr>
<tr>
<td>26</td>
<td>Sorry</td>
<td></td>
<td>220</td>
<td>1.06</td>
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### Global

<table>
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<tr>
<th></th>
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<tr>
<td>Yes/Affirmative</td>
<td>I</td>
<td>996</td>
<td>4.82</td>
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<tr>
<td>No</td>
<td>I</td>
<td>386</td>
<td>1.87</td>
</tr>
<tr>
<td>Enemy is weakened</td>
<td>A</td>
<td>34</td>
<td>0.16</td>
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<tr>
<td>Greetings (All Forms)</td>
<td>S</td>
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<td>4.02</td>
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<tr>
<td>Hello</td>
<td>S</td>
<td>228</td>
<td>1.10</td>
</tr>
<tr>
<td>Hi.</td>
<td>S</td>
<td>376</td>
<td>1.82</td>
</tr>
<tr>
<td>Hey!</td>
<td>S</td>
<td>231</td>
<td>1.12</td>
</tr>
<tr>
<td>Bye!/Avitavein</td>
<td>S</td>
<td>407</td>
<td>1.97</td>
</tr>
<tr>
<td>Great shot!</td>
<td>S</td>
<td>1140</td>
<td>5.52</td>
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<table>
<thead>
<tr>
<th></th>
<th>Type</th>
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<th>%</th>
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</thead>
<tbody>
<tr>
<td>Cheer/Celebrate</td>
<td>A</td>
<td>2074</td>
<td>10.04</td>
</tr>
<tr>
<td>Yeah!</td>
<td>A</td>
<td>761</td>
<td>3.68</td>
</tr>
<tr>
<td>Woohoo!</td>
<td>A</td>
<td>778</td>
<td>3.77</td>
</tr>
<tr>
<td>Yee-haw!</td>
<td>A</td>
<td>380</td>
<td>1.84</td>
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<tr>
<td>Heh heh.</td>
<td>A</td>
<td>555</td>
<td>2.69</td>
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### More Global Chats

<table>
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<tr>
<td>Thanks</td>
<td>S</td>
<td>157</td>
<td>0.76</td>
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<tr>
<td>Youre Welcome</td>
<td>S</td>
<td>114</td>
<td>0.55</td>
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<tr>
<td>Oops</td>
<td>S</td>
<td>578</td>
<td>2.80</td>
</tr>
<tr>
<td>Sorry</td>
<td>S</td>
<td>549</td>
<td>2.66</td>
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<tr>
<td>Hold your fire</td>
<td>F</td>
<td>17</td>
<td>0.08</td>
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<tr>
<td>Good game</td>
<td>S</td>
<td>253</td>
<td>1.22</td>
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<table>
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<tr>
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<th>%</th>
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<tr>
<td>Player Class</td>
<td>F</td>
<td>449</td>
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<tr>
<td>I'm a medic.</td>
<td>F</td>
<td>279</td>
<td>1.35</td>
</tr>
<tr>
<td>I'm a lieutenant</td>
<td>F</td>
<td>61</td>
<td>0.30</td>
</tr>
<tr>
<td>I'm an engineer</td>
<td>F</td>
<td>59</td>
<td>0.29</td>
</tr>
<tr>
<td>I'm a soldier</td>
<td>F</td>
<td></td>
<td></td>
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</tbody>
</table>

**Totals**

<table>
<thead>
<tr>
<th></th>
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<th>%</th>
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<tbody>
<tr>
<td>20661</td>
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<td>100.00</td>
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</tbody>
</table>

F=Functional, S=Social, A=Argumentative, I=Indeterminate

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<table>
<thead>
<tr>
<th>Number of Players</th>
<th>Kills</th>
<th>Deaths</th>
<th>Number of Unscripted Chats (%)</th>
<th>Number of Voice Chats (%)</th>
<th>Number of Text Chats</th>
<th>Total Log Events</th>
<th>Hrs.</th>
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<tr>
<td>84</td>
<td>2434</td>
<td>2606</td>
<td>392 (13.71)</td>
<td>2467 (86.29)</td>
<td>2859</td>
<td>7275</td>
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<td>139</td>
<td>2178</td>
<td>2378</td>
<td>282 (11.68)</td>
<td>2132 (88.32)</td>
<td>2414</td>
<td>7281</td>
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<tr>
<td>53</td>
<td>1621</td>
<td>2047</td>
<td>720 (25.10)</td>
<td>2149 (74.90)</td>
<td>2869</td>
<td>11029</td>
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<tr>
<td>88</td>
<td>2209</td>
<td>2840</td>
<td>846 (20.91)</td>
<td>3200 (79.09)</td>
<td>4046</td>
<td>9418</td>
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<tr>
<td>85</td>
<td>2286</td>
<td>2987</td>
<td>919 (20.95)</td>
<td>3468 (79.05)</td>
<td>4387</td>
<td>9910</td>
<td>2</td>
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<tr>
<td>109</td>
<td>2946</td>
<td>3536</td>
<td>594 (23.61)</td>
<td>1922 (76.39)</td>
<td>2516</td>
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<td>67</td>
<td>1649</td>
<td>1775</td>
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<td>76</td>
<td>1942</td>
<td>2114</td>
<td>414 (18.83)</td>
<td>1785 (81.17)</td>
<td>2199</td>
<td>5775</td>
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<tr>
<td>109</td>
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<td>1745 (86.51)</td>
<td>2017</td>
<td>7134</td>
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<tr>
<td>810</td>
<td>19406</td>
<td>22935</td>
<td>4766 (18.74)</td>
<td>20661 (81.26)</td>
<td>25427</td>
<td>72131</td>
<td>18</td>
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</table>
BIBLIOGRAPHY


   Pp. 18-26 in Video Games, edited by Roman Espejo. Farmington Hills, MI:
   Greenhaven Press.

   (www.mudconnect.com/mudfaq/mudfaq-p1.html#q1)


Debord, Guy. 1994. The Society of the Spectacle. Translated by Donald N.

DeGaetano, Gloria and Dave Grossman. 1999. Stop Teaching Our Kids to Kill: A
   Call to Action Against T.V., Movie, and Video Game Violence. New York:


--------. 2000. United States Senate Committee on Commerce, Science, and Transportation hearing on "The Impact of Interactive Violence on


Ye, Zhan. 2004. “Genres as a Tool for Understanding and Analyzing User Experience in Games.” Demonstrated at the annual meeting of the Association for Computing Machinery’s Special Interest Group on Computer-Human Interaction, April 24-29, Vienna, Austria.
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Co-Chairperson, Dr. Matt Wray, Ph. D.
Committee Member, Dr. Bo Bernhard, Ph. D.
Graduate Faculty Representative, Dr. David Beisecker, Ph. D.