PLAYING WITH POWER: AN EXAMINATION OF A

MASSIVE MULTIPLAYER ONLINE

ROLE PLAYING GAME

BY

JAMES TYRONE ORPILLA ALVARADO

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Dissertation Committee:

Jana Price-Sharps, EdD

Donald I. Templer, PhD

Siobhan O'Toole, PhD
Committee Chairperson

May 27, 2005

                          Kevin O'Connor, PhD, Director
                          Clinical PhD Program

DEDICATION

I dedicate this dissertation to my parents, Jesus and Leticia Alvarado. They have always made their children's goals their goals. My dream to become a psychologist became their dream to help me achieve that goal. Thanks, Mom and Dad; without your support and guidance none of this would have ever been possible.

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ABSTRACT OF THE DISSERTATION

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James Tyrone Orpilla Alvarado

College of Arts and Sciences, Fresno Campus

Siobhan O'Toole, PhD

Dissertation Committee Chairperson

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Advances in technology and the maturation of the
Internet have led to the rise of interactive simulated
realities called Massive Multiplayer Online Role Playing
Games (MMORPGs). Each day thousands of people log on to
these worlds to socialize with each other and interface with
these environments. Their motivations for entering online
worlds and the methods they use to accomplish their goals
were the focus of this social science inquiry. A digital
spiral galaxy along with its inhabitants, which has been
recorded to number over 12,000, was investigated.

Ethnographic research methods yielded 12 interacting themes and methods players used to manipulate the themes to progress within the online environment. Results indicated that online worlds allowed players to use anonymity, multiplicity (the ability for one person to control multiple avatars in the same world), and the environment's limitations to further their goals and justify their actions. Cooperative and aggressive interactions between players were examined. Findings were congruent with Hirschi's (1969) control theory and supported the effects of social bonds in suppressing criminal activity. The research's implications to online addiction are discussed.

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Chapter 1

INTRODUCTION

The Internet is cited as a tool that has vastly changed the way people communicate and interact. Online communities have formed as a result of computer and Internet availability. While these communities are based in cyberspace, research has shown that actions online can have results of value offline.

In 2001, Castronova, Professor of Economics at California State University, Fullerton, published his findings that the world of Norrath had a Gross National Product somewhere between Russia and Bulgaria, making it the 77th richest country in the world. Norrath's currency traded on exchange markets at 0.0107 USD, which is higher than the Japanese yen. While roughly 60,000 people occupy Norrath at any given time, there are about 12,000 people who call it their permanent home. What is most remarkable about Norrath is not that its citizens are spread across the globe, and it is not that it is richer than countries like China and India. What is most remarkable about Norrath is that it has no geographical location. Norrath exists as a

virtual world located on 40 computers in San Diego, California (Castronova, 2001).

Norrath, an online community producing offline value, serves to illustrate the blurring of lines between the digital and the real worlds. Virtual online interactive environments, similar to Norrath, have redefined what a game is. In a traditional game there is a set goal that a player (gamer) must accomplish to win and end the game. Virtual worlds, however, are designed without a definite end or specific objectives that must be accomplished. The focus in these online games has been shifted from independent accomplishment of personal goals to a cooperative effort to fulfill a group's needs. Virtual worlds foster this environment by making character development toward a particular set of online abilities come at the choice of not developing other abilities. This results in a character being good at some things and not proficient at others. This encourages gamers to develop their character's specific skills and form alliances with other players who have skills that complement their own. Gamers can then use their skills and alliances to conquer virtual enemies, gather virtual wealth, and even form virtual nations. When looked at through a broad lens, activities within

virtual worlds represent a vast array of seemingly
unrelated occurrences that all have one common theme.
That theme is power.

Virtual worlds are about the accumulation and
holding of power. This power can be physical,
economic, or social. Physical power in a virtual world
is displayed through the use of developed skills to
exert an effect on the virtual world. This can be
expressed through the creation of objects or the
destruction of a virtual enemy or another player.
Power can also be the use of one's skills to change the
environment. Economic power is displayed through the
use of accumulated virtual wealth. Virtual worlds
typically have a form of currency that is used to
purchase services and objects within the world. Wealth
can also be defined by ownership of valuable property
or territory. Through the gathering and earning of
virtual wealth players gain the ability to exert
economic power over their environment. Finally, social
power can be divided into two categories: networking
and political power. In virtual worlds, gamers have
the ability to access other players as resources to
accomplish a goal. Through networking, players can
obtain virtual objects, information, and services.
Political power is another form of social power. This

form of social power is exerted when a gamer is capable of organizing and directing formal groups of players to accomplish a goal. These formal groups consist of players who officially band together under a common name or purpose to form a clan, sect, corporation, alliance, or nation in a virtual world.

This study explored physical, economic, and social power by examining interactions within an online community. Virtual worlds are characterized by three key components. The first, interactivity, refers to the ability of gamers to access virtual worlds' ability remotely and simultaneously. The actions of one person within this world are capable of affecting others within it. Physicality, the second component, is the illusion of being physically present in the world. This is created through text or graphical depictions that create a sense of a first-person perspective of being in the virtual world. The world is typically governed by physical laws similar to reality and is characterized by a scarcity of resources.

The third component, persistence, refers to the world's ability to run regardless of a game player's (gamer) presence or absence in it. The world is capable of remembering the location of people,

creatures, and objects as well as track ownership and relationships between them (Lindstrom, 2003).

The interactivity, physicality, and persistence of virtual game worlds create an environment for entertainment. This environment, however, also becomes a venue for anonymous socialization. This is a unique aspect of virtual communities that centers on an inhabitant's ability to craft his or her virtual presence independent of his or her real world self. This virtual self, also referred to as an avatar, can be any gender or ethnicity. Some virtual worlds also allow facial features, weight, and eye and hair color to be customized. An avatar's virtual persona is further enhanced by a person's ability to create and role play a new personality for it. Because there is no direct connection between a person and his or her digital self, people can use their avatars to do things within a virtual world without any social consequences to their real world persona.

This anonymity also gives people the ability to create and control multiple avatars within a virtual community. These alternates, or alts, grant a person another layer of anonymity. Through alts, players have the ability to act within a virtual world while shielding their main avatar, or main for short, from

any association with their alt's actions. Alts also grant multiplicity, the ability to maintain multiple simultaneous presences within a virtual world. With alts it is possible for a player to meet someone's main and two of their alts and yet be unaware that he or she is talking to three different avatars controlled by the same person. Anonymity and multiplicity create a social dynamic within online environments that is changing and redefining the way people communicate.

Castronova's (2001) study of Norrath illustrates how action and creations in a virtual world, a world intended to be a game, can translate to something that has actual worth in the real world. The Internet will continue to grow. That growth will be accompanied by an increased availability for people to use computer mediated communication (CMC) to interact on a work, social, or recreational level. The motivations and methods players utilize to progress within online game communities will provide insights into how people utilize the unique aspects of CMC and virtual environments to further their own agendas within work and social settings.

For people in forensic settings, this information will point to areas of a system that are prone to manipulation and possible methods of manipulations.

This information would allow people to prepare for and prevent system abuse through identifying vulnerabilities and exploits. Clinical practitioners would gain insight into the motivations behind occupants of online communities for their behaviors. This, in turn, can help point to possible solutions for phenomena such as cyber addiction and online crime.

Ethnographic research methods were used to examine the interactions within a virtual world. This approach aids in preserving the rich data provided. Hirschi's (1969) theory provided a framework of inquiry that expands on the ways people use the various forms of power in online communities. Existing research on confidence games aid in the analysis of interactions by providing insights into possible techniques players might use.

Chapter 2

LITERATURE REVIEW

Computer Mediated Communication

Computer mediated communication (CMC) is communication that is facilitated through the use of technology. Computer mediated communication (CMC) can take place either synchronously or asynchronously. In synchronous CMC the interlocutors are communicating simultaneously while in asynchronous CMC they are not (Dix, Finlay, Abowd, & Beale, 1993). Training and connection are the main differences between the two types of CMC, with synchronous CMC happening in real time between computers using any form of linking technology such as is found in video conferencing (Riva & Galimberti, 1998). Examples of asynchronous CMC are e-mail and postings on electronic bulletin boards. In both instances the medium is used by interlocutors to deposit and retrieve communication. The sender and the receiver do not have to be accessing the system simultaneously, nor do they need to have their computers connected, which are both requirements of synchronous CMC.

While the most frequently cited example of synchronous CMC is video conferencing, Internet relay chat (IRC) is a more widely used system (Riva & Galimberti, 1998). Variations of this system involve instant messaging (IM) software, which allows users to connect and chat with two or more individuals. The America Online instant messenger, Microsoft Messenger, and Yahoo Messenger are popular examples of this technology. Instant messaging (IM) allows users to create a private virtual room in cyberspace in which they can communicate. Another variant of IRC is found in the form of Multi User Dungeons or MUDs.

Multi User Dungeons

Multi user dungeons (MUDs) are virtual worlds, similar to chat rooms, where people can communicate and interact with each other and their virtual world. Multi user dungeons, or MUDs, are text-based virtual worlds that can be accessed by multiple participants (Utz, 2000). Unlike IMs, which are text-based conversations, MUDs allow users to relate in far more complex ways by creating a text-driven illusion of interaction. The MUDs worlds are comprised of multiple rooms that are complete with text-based descriptions, entrances, and exits. The rooms are designed to be

virtual areas where participants can congregate, communicate, and explore. The MUDs can also contain objects with which users can interact (Parks & Floyd, 1996). Some MUDs contain mobile interactive objects (MOBs) that serve as creatures that populate the virtual world.

Multi user dungeons (MUDs) were among the first virtual online worlds to be created. These initial computer worlds, however, had limitations; MUD interactions are purely text based (Kushner, 2004). Not only are communications limited to keystrokes but also descriptions of people, environments, objects, creatures, and even actions are text based (Utz, 2000). In essence, MUDs are interactive storybooks with human components playing the main characters.

Other limitations of MUDs can be found in their construction. The worlds are comprised of multiple rooms similar to an IM room. These rooms have text-based descriptions, entrances, exits, and contents (Utz, 2000). In this virtual space players move from one area to another by moving room to room, but the mechanics of movement parallel the turning to a page in a book more than an actual physical relocation. Movement to a new room allows a player to enter the

story taking place at that particular moment in that particular area (Parks & Floyd, 1996).

Being present in the same room as other players also had a significant role in initial MUDs. Besides creating an illusion of being in another person's presence, it allows players to cooperatively interact with the virtual environment and change a room's contents. Objects can be moved or removed, and virtual creatures can be killed, usually with virtual weapons (Utz, 2000). If these changes were permanent, however, then new players would be unable to relive the story in that room. The solution to the problem was the creation of a system that allowed rooms the ability to reverse changes made within them. Rooms, objects, and creatures in areas were constantly being refreshed. Changes made were undone, objects removed were replaced, MOBs killed were respawned, and sometimes belongings left behind were cleared out. This ensured that the particular stories intended for a certain location could be played out by the next set of players who wander into it. Thus changes made in these initial MUD worlds were short lived.

Further, the technology of the time limited the number of people who could exist in the same MUD simultaneously. During the mid 1990s, one variant,

CircleMUD, was limited to having approximately 58 or fewer players at a time (Elson, 1996). When these worlds filled up some systems would place new players in a new world that mirrored the last called shards (Crowd Control Productions, 2004). Thus it was possible for players to be in the same game but not in the same world.

These pioneering games helped set the stage for larger, more graphical, and interactive virtual worlds. These worlds will become more sophisticated as the Internet matures, computer power increases, and graphic software improves (Krantz, 1996). The current incarnation of these virtual worlds has arrived in the form of Massive Multiplayer Online Role Playing Games, or MMORPGs (Kushner, 2004).

Massive Multiplayer Online Role Playing Games

The developers of MMORPGs take advantage of the processing power and bandwidth available to modern gamers by creating virtual worlds where players can meaningfully relate to each other in cyberspace. These worlds are places of interaction where activities can be done together and later talked about. This is accomplished by creating environments that resemble a fantasy version of the real world. Entering these

detailed worlds aids inhabitants in a suspension of

reality that facilitates interactions (Kushner, 2004).

The word *massive* in MMORPG is one unique feature

that makes these worlds attractive. While previous MUD

worlds were only able to accommodate numbers of people

in the tens or hundreds (Elson, 1996), MMORPGs are

capable of handling populations in the thousands (Crowd

Control Productions, 2003). No longer is there a need

for shards, multiple worlds of parallel construction;

entering these worlds guarantees entry into the same

world as other players of the same game.

The existence of a player-driven economy is

another feature of MMORPGs. In typical games, which

involve a form of monetary exchange, the worth of

objects is set by the programmers, resulting in

controlled prices. Some MMORPG economies break away

from this model by allowing its participants to dictate

the world's economy through the laws of supply and

demand. In such player-driven economies the

availability and desirability of objects factor into

determining what a player is willing to pay to obtain

an item or receive an order to part with one (Crowd

Control Productions, 2003).

Another feature of these new systems is the

persistence of the worlds. Players of traditional

computer games can save their current place in the game and restore themselves to that point. The game world also stops existing when the player exits the game. Restoring to a saved point can undo changes made. Objects removed or damaged will be restored, creatures killed will be reborn; in essence, all changes made will be instantly undone. Traditional games have no long-term consequences for changing a room because its previous state can be restored. Persistent worlds, however, retain changes and continue to exist after the player exits. Items can be permanently destroyed and resources can be depleted. Players can continue to exist within and change the MMORPG world while other plays are offline (Crowd Control Productions, 2005a). Persistent world MMORPGs thus increase their ability to parallel reality by building in long-term social, environmental, and economic consequences for players. This, combined with a player-driven economy, helps distinguish MMORPGs from other games due to their unique interaction between participants, the environment, and the economy.

Advances in computer graphics have benefitted the development of multiplayer online games (Kee, 2003). Some of these new virtual worlds are no longer broken up into page-like rooms. They now feature near

seamless graphical representations (Kushner, 2004) of forests, castles, plains, and even galaxies. This graphical representation extends beyond the environment and includes items and creatures. The players themselves can also have their own appearances. In some virtual worlds these avatars can have their facial features morphed to create a unique virtual representation for a person (Crowd Control Productions, 2005a).

Virtual worlds are not only a new game, they are a new way in which people interact with one another (Kushner, 2004). As technology has advanced so has the sophistication of these online worlds. With each permutation, incarnations of virtual worlds come closer and closer to replicating reality in interactions, consequences, and representation. As such, they deserve the attention of the social sciences.

Early virtual environments, particularly chat rooms and MUDs, have been the focus of Internet addiction studies (Beard, 2002; Griffiths, 2000; Jabs, 1996; Young, 1998; Young & Rodgers, 1998). The MMORPGs, however, are a new phenomenon. Their population's size and the types of interactions it facilitates sets them apart from chat rooms and MUDs. An extensive search of the literature revealed that

while numerous aspects of online role playing have been examined, there are few studies that have been performed on MMORPGs. Yee's Daedalus Project (2004) represents one of the most ambitious examinations of MMORPGs. The Daedalus Project is a long-term, online surveying venture that examines a fantasy-based MMORPG called Everquest. Yee's research indicates that, among Everquest players surveyed, a majority of male (60.8%, n = 2,444) and female (72.0%, n = 285) participants expressed levels of benevolence and malevolence online that were similar to how they would express themselves in real life. The same was true relative to inhibition and disinhibition, with a majority of males (59.9%, n = 2,443) and females (66.2%, n = 384) stating that their demeanor online is similar to their demeanor in real life (Yee, 2004).

The current study attempted to expand Yee's research into another MMORPG called Eve-Online (Eve). Eve differs from Everquest in two main points. The first is the genera and the second is the size.

The World of Eve

Everquest is a fantasy MMORPG that takes place in a world populated by mythical creatures. Participants can wield both magic and weapons alike while roaming through dungeons, forests, and deserts to explore their world (Sony Online Entertainment, 2004). Eve, in drastic contrast, is a science fiction game taking place not on solid ground but in the vacuum of space. Participants in Eve pilot their ships through a virtual spiral galaxy comprised of numerous stars, each with its own celestial bodies (planets, moons, and asteroids), all of which are explorable (Crowd Control Productions, 2005a).

The large number of players and size of the virtual environments are what sets MMORPGs apart from all other types of online gaming. While an Everquest server is capable of handling roughly 1,000 simultaneous players in a single world, Eve is capable of handling players numbering in the thousands. Eve's designers created it to eventually support up to 100,000 players (Rausch, 2003). This virtual environment has consecutively broken records for the number of players in the same persistent world with over 10,000 players in 2004 (Crowd control Productions,

2004) and over 12,000 players in 2005 simultaneously inhabiting Eve (Crowd Control Productions, 2005b).

Eve is further set apart from other games by a player's freedom of movement and development within the environment. While most games have a clear objective and predetermined ways to pursue that objective, Eve leaves such decisions up to players (Crowd Control Productions, 2005a). In games like Everquest players begin the game by deciding what type of character they will play by choosing a class. Class choices differ greatly from game to game but, in general, they give the player a structured format by which his or her character can develop. In such systems a player can choose roles such as a warrior, a wizard, a priest, or even a rogue (Sony Online Entertainment, 2004). As the game progresses a character's growth is restricted to abilities related to its class: A fighter becomes better at fighting but will not progress at magic-using abilities. Eve replaces this system with one that allows players to choose which skills to develop and emphasize (Crowd control Productions, 2005a).

Eve's unstructured system is not just limited to the development of a player's abilities. Players can choose to work alone or band together to achieve their goals. Further, Eve also allows a person to choose to

work with or against other players by giving him or her the ability to extort, rob, attack, and even con other players in order to achieve his or her goals. Conversely, players can set bounties on other players as well as hunt other players to collect bounties.

Eve offers players a large community to interact with and the freedom to choose how their characters develop and interact. This makes the Eve galaxy a virtual universe where people can choose to play the role of a regular citizen, an enforcer of justice, or an element of criminality (Crowd Control Productions, 2005). These factors make Eve a rich potential source of social science data regarding interactions of CMC and concepts of justice.

Control Theory

Many theories of crime assert that people naturally obey laws and that crime is caused by pressure from special forces. These forces can be either biological (Walters, 1992), economic (Glaser & Rice, 1959), or social (Merton, 1957). Control theory takes an opposite view and states that people would naturally commit crime, and it is the presence of controlling factors that prevents delinquency. This stance changes the focus from why people commit crime

to why people do not commit crime (Vold, Bernard, & Snipes, 1998).

Thus, control theories postulate that it is not the person who is the cause of crime; rather, it is the inadequacy of the forces that are supposed to restrain criminal activity that are to blame. This perspective allows a researcher to view interactions within online communities as the product of environmental and social pressures on a player.

Early control theories began with Reiss (1951) reviewing the official court records of 1,110 White male juvenile probationers between the ages of 11 and 17 years. His research found that having weak ego and superego controls paired with either intensive psychotherapy in the community or treatment in a closed facility led to an increased likelihood of probation revocation. Reiss argued that the diagnosis and treatment recommendations were based on assessments of the client's ability to refrain from meeting needs in ways that conflicted with the norms and rules of the community. This ability to refrain is also known as a client's personal control. Reiss further noted that probation revocation was also likely when juveniles exhibited low attendance and behavior problems in school. He argued that these were indications of a

juvenile's lack of acceptance of social controls set by socially approved institutions. Reiss's observations became foundational for later control theories.

Later, in 1957, Toby theorized that, while all juveniles are tempted to break the law, some have much more to lose than others when they give in to temptation. Thus, the juvenile has a vested interest in behaving, a stake in conforming. Toby articulated the concept of stakes in conformity by citing the different perspectives experienced by a juvenile doing well in school and another doing poorly. A juvenile with a good school record faces legal ramifications as well as the possibilities of jeopardizing his or her future career. In contrast, a juvenile doing poorly only risks legal punishment. The less someone has to lose the lower his or her stakes are to conform. Toby expanded this concept by arguing that communities with large numbers of juveniles with low stakes in conformity can actually form groups that provide peer support for deviance. This would create a higher crime rate than what would be expected if the individual's, as opposed to the group's, stake in conformity was examined. Also, individuals with low stakes in conformity will be less likely to commit crimes if they

are in communities that lack support for delinquent

behaviors (Toby, 1957).

Nye (1958) took the concept of community affecting

stakes a step further by performing a study examining

the family as the most important source of social

control for adolescents. Nye argued that delinquency

was caused by the lack of social controls. Social

controls in this context refer to a wide array of

factors, including direct control through restrictions

and punishment, indirect control through the affections

of others, internal control of their conscience, and

the availability of a legitimate method to satisfy

their need. Nye argued that a violation of the law can

be avoided if a person's need can be adequately and

timely addressed. Under such conditions, a minimum of

direct, indirect, and internal controls will be needed

to maintain conformity.

Both Toby's and Nye's theories provided the

initial framework for modern control theories (Vold et

al., 1998). Matza (1964) articulated a control theory

based on delinquency and drift. His theory moves away

from concepts of constraints and emphasizes freedom and

the consequences of that freedom. Drift takes place in

areas of a social structure in which controlling

factors have been relaxed. In this unsecured state of

freedom a person is more likely to become delinquent.

Under this framework a theory of delinquency would not

describe the cause of delinquency. A theory of

delinquency would focus on what caused delinquent drift

through describing the conditions that loosened the

social restraints (Matza, 1964).

Matza noted that traditional theories of

delinquency hold that criminal behaviors are generated

by an offender's commitment to delinquent values.

Matza then argued that these behaviors are actually a

result of delinquents portraying themselves a certain

way to uphold an image. Private interviews with

delinquents revealed that they did not value the

criminal behavior. The delinquents described their

actions as morally wrong. They, however, cited

extenuating circumstances that allow them to perform

their criminal activities without guilt (Matza, 1964).

This shows that delinquents do not reject

society's values. They instead neutralize values

through the introduction of extenuating circumstances

that excuse a violation of the norm. This sense of

irresponsibility is based on a broad interpretation of

legal standards of extenuating circumstances. The

ability to accept this sense of irresponsibility is

encouraged by a sense of injustice, which is derived

from a broad interpretation of legal standards of

justice to argue that one has been treated unfairly.

This sense of injustice is best viewed as an attitude

that one can be guilty yet unjustly treated if the

system does not comply to one's own excessively

stringent interpretations of how one deserves to be

processed (Matza, 1964).

It is a sense of irresponsibility and injustice

that releases the hold that social pressures once had

on an offender. This, in turn, caused the offenders to

be in a state of drift in which they were free to

choose between lawful and unlawful behaviors. It is

during this stage that the positive forces of

delinquency, forces that influence delinquent behavior,

caused an offender to act unlawfully. This freedom

causes offenders to feel uncertain about the future as

well as unable to control their own fate. During this

state offenders feel compelled to take control of their

destiny by taking action. So, something is done to

create a situation in which they know they directly

affected the outcome. They attempt to become the cause

of events and take actions that lead to delinquent

behaviors. Once such an action is taken, it becomes

easier to do so because the offender has already done

the necessary rationalization to commit a delinquent act without guilt (Matza, 1964).

Hirschi (1969) took a similar stance when he noted that it is unnecessary to explain the motivation for delinquency because everyone is capable of committing delinquent acts. Under this rationale, it is not the motivation for delinquency that is important. It is what prevents people from committing delinquent acts that should be studied. Hirschi proposed a control theory where an individual's bonds to social groups reduce the likelihood of delinquency. Thus, it is the close bonds to one's family, social circle, community, and society that provide the preventative force that keeps delinquency at bay (Hirschi, 1969).

Hirschi's (1969) theory involves four elements: attachment, commitment, involvement, and belief. Together these elements provide the necessary restraints that prevent the natural impulses to act delinquently. Attachment refers to a social bond in which an individual has affection for and sensitivity toward others. Commitment is the investment a person has in society. Commitment further refers to the stake a person has in maintaining his or her current social standing by conforming to society's standards. Involvement refers to how occupied a person is with his

or her daily activities. It represents the premise
that the more involved a person is in daily activities
the less opportunities he or she has to act
delinquently. Lastly, belief represents the variation
in how compelled people feel to conform to the rules of
a society. Thus, the less belief a person has in rules
the less likely the person is to conform to them.

Hirschi (1969) found support for his theory by
sampling 4,000 junior and senior high school youths.
He found that boys who were more closely attached to
their parents were less likely to report committing
delinquent acts than were boys who reported not being
as closely attached. These results held true
regardless of the participant's race, class, or peer's
level of delinquency. This illustrated the element of
attachment in control theory. Further, juveniles who
reported delinquent acts were also more likely to
report poor grades, not caring about teachers'
opinions, disliking school, and rejecting school
authority. Hirschi argued that such indicators show a
lack of attachment to the controlling forces exhibited
by school, thus their delinquency is consistent with
control theory. The survey also found that, when
social controls are weakened, association with
delinquent companions could increase delinquent

behavior. Association with delinquent friends only leads to delinquency when the juvenile was found to have lowered stakes in conformity.

Hirschi (1969) also found that the educational and occupational goals and expectations of delinquents were set at a lower level than juveniles who did not offend. Further, regardless of expectations, the higher the aspirations of the juveniles the lower the rate of their delinquency. Such results relate to Hirschi's concept of commitment, which describes the stake a person has in society (Hirschi, 1969). Juveniles who perceive a possible future that is dependent on their conforming to society will be less likely to become delinquent than others without any perspective future.

Hirschi (1969) also found that delinquent juveniles were more likely to report being bored, spending more time talking to friends, spending less time on homework, and spending time riding around in cars. The element of involvement, which describes how occupied a person is by daily activities, is supported by this evidence. The delinquent juveniles described had more time available. This, based on the element of involvement, equates more time to perform delinquent acts.

Hirschi's (1969) research also addressed the element of belief. He found a strong correlation between participants who reported delinquent behavior and those who reported a favorable attitude toward circumventing the law if it were possible to do so without consequences. Thus people who were less likely to believe in obeying the laws were more likely to be delinquent.

Control Theory and Game Play

Control theory was chosen to best describe the interactions within Eve. This is because of its premise that everyone is capable of criminality and that social forces prevent criminal activity. Eve, being a game, puts players against players. While the game has no actual end goal, players establish their own objectives, such as the accumulation of wealth, territory, resources, or followers.

Ways of Obtaining Power

   Con is a shortened term for confidence.
Confidence games, or con games, are crimes that use
persuasion and deception to obtain a particular goal.
They differ from other forms of crime because they do
not use violence or physical harm to achieve their
objective. Instead, con games rely on a combination of
clever wordings and slights of hand. The con artist
gains the confidence of the victim or mark and then
uses that trust to manipulate the situation in the con
artist's favor (Swierczynski, 2003).

   A victim of a con game is commonly referred to as
a mark. Historically, the term *mark* is derived from
the world of crooked carnival games. When carnival
game operators found someone who fell prey to their
tricks they would discretely use chalk to leave a mark
on the person's back. This would help other crooked
game operators to identify the person as an easy victim
for carnival scams (Swierczynski, 2003).

   Con artists can be broken down into five different
groups based on the types of cons they perform. They
can be classified as being a grifter, an imposter, a
business opportunist, an insider, and a guy next door.
Each type of con artist uses a different approach and

persona to obtain his or her desired goal (Swierczynski, 2003).

Grifters are associated with short-term con games lasting only a few hours. Typically they work on street corner scams, like asking for money for gas or short changing scams in bars and convenience stores. They typically run small operations and are looking to obtain cash in any way possible besides working (Swierczynski, 2003).

Imposters are the next class of con artists. While all con artists play a role to manipulate their mark, imposters actually assume the identity of another person or a profession to achieve their goal. The con artists can perform this by stealing a uniform, credentials, or personal information to help complete their disguise (Swierczynski, 2003).

The business opportunist can artists sets up operations designed to defraud people and institutions. These cons are typically performed under the guise of a legitimate business transaction. These cons are typically complex and yield a large sum for the artist (Swierczynski, 2003).

The insider category encompasses any con artist who joins a corporation or works with an organization with the intention of eventually robbing them. These

are the embezzlers and corporate con artists who find

ways to funnel company money into their personal

holdings. Embezzlement is such a rampant crime that

one out of every three failed businesses can be

attributed to an insider siphoning profits out of the

organization (Swierczynski, 2003).

Con artists, the guy next door, constitute the

last category. Con artists subtly perform their scams.

They innocently find their way into a mark's life and

become an integral part of it. They gain the mark's

trust and confidence for the purpose of later leeching

off and stealing whatever they can (Swierczynski,

2003).

Con Game Positions

While one person can perpetrate a con game,

sometimes more accomplices are needed to ensure that

the scam goes smoothly. This is particularly true for

larger cons involving greater payoffs as well as a

longer time commitment. Under such situations each

additional con artist plays a particular role that

reinforces the main con artist's position.

The first position is the roper. A roper's job is

to bring marks into the con game (Swierczynski, 2003).

While the main con artist does the con, the roper

identifies and brings the marks to the con game. In three-card monte games, ropers encourage the curious to join in the game using any method necessary.

The next position, the shill, plays the role of a supporting actor within the con (Swierczynski, 2003). The shill's duty is to reinforce the con game by pretending to go along with the events of the con, thereby encouraging the mark to believe that the created situation is real. In the three-card monte example a roper encourages a mark to join the game. The mark approaches the table to join another person apparently playing the game. This second person, however, is a shill.

The muscle man position is designated to handle controlling the mark if the con game starts to turn against the con artists. In such situations the muscle man's job is to calm down or scare away marks. During a three-card monte game the muscle man would attempt to placate or scare away an unruly mark who just lost his or her money.

The final position, the wall man, acts as a lookout. His job is to watch for any possible element that could interfere with the con game that is in play. Such elements could be an approaching police officer, previous marks, as well as friends or relatives of the

intended mark. The wall man in a three-card monte game would keep his eyes open for police officers.

Types of Cons

Con games can be broken down into two categories based on the time investment they require. Short cons and big cons differ not only in duration but also in payoff. A short con involves a small number of meetings, sometimes as little as one. Big cons are complex and involve multiple meetings but can yield a large profit for the artists.

Short cons can be easily broken down into six main components. There is the motivation, which is the reward promised to the mark. This can be monetary or fulfillment of some other need the mark has. The next component is the come on. This is the story the con artist uses to manipulate the mark. The third component is the shill. This component is a person or a group of people who help to reinforce the scam. The next component is the swap. This is the point where the mark gives up his or her money for something else that is worthless. Stress is another component in the con game. Its purpose is to put pressure on the mark to keep him or her from thinking too much about what is happening. The final component of a short con is the

block. The block is any element that dissuades a mark from going to the police. This could be the mark willingly participating in an illegal activity. It can also be the embarrassment of being conned out of a large sum of money.

Big cons, by contrast, cannot be broken down as easily as short cons. These con games take days, weeks, and sometimes months to set up. Big cons are more rare than short cons. The modern versions of big cons take the form of business cams, such as those that took place with Enron and WorldCom (Swierczynski, 2003, p. 11).

Business Con Games

Businesses exist to make money. This makes any business, regardless of size, a popular target for con artists. A business's money is obtained by a con artist in one of two ways. The first way involves an outsider who finds or creates a weakness in the organization that can be exploited. The second way is through becoming an insider and knowing all the weaknesses and how to exploit them (Swierczynski, 2003).

Asset misappropriation is a broad category of business con games. This can take place through

fraudulent disbursements of assets, skimming, and larceny. Fraudulent disbursements take place when a legitimate transaction is faked in order to mask embezzlement. Skimming takes place when company money is taken by an employee before it hits the accounting records. An example of this is when employees pocket part of a payment and then charge less than what they should. The employee thus takes the money before it is registered on the company's books. The third type of asset misappropriation, or larceny, takes place when money is taken after it enters the company's accounting books. An example of this would be an employee who steals from the cash register at the end of the day (Swierczynski, 2003).

Con Games and Eve

Eve is a world of individuals, corporations, and alliances (Crowd Control Productions, 2005a). Thousands of people converge within this virtual world on a daily basis. While some prefer to obtain wealth through mining and business, some players use cons to financially advance within the world. Perpetration of con games is facilitated by the anonymity and multiplicity found within Eve. Anonymity allows a con artist to hide behind multiple identities to ensure that they are unassociated with previous actions. Multiplicity allows a con artist to play multiple roles in a con game. A skilled Eve con artist can play roper, shill, muscle, and wall man all at the same time.

Eve's organization of players into corporations and alliances also facilitates the perpetration of con games. Con artists can become trusted friends to a corporation or a member of it. They can then use their position to obtain some or all of the corporation's assets.

Con games provide a useful lens with which to view some of Eve's social interactions. The roles and games con artists play can aid in the descriptions of some gamers' actions. They can help in identifying if a con

game is taking place and what purpose a player is

serving in that game.

Chapter 3

METHODS

To study interactions the researcher used a multimethod approach of ethnographic research by collecting data through focus groups, observations, participation, and interviews with players on Eve. The researcher read websites that he was referred to by players as well as listed to Eve-related media produced by players. To further follow the development of hypotheses and possible subjective influences upon the research, the researcher kept a journal that tracked the ongoing project events and his thoughts, feelings, and reactions to them. Structure was added by using Kelly's (1955) three-phase creativity cycle, which organized the various data sources into a coherent research project.

Three-Phase Creativity Cycle

Three phases took place, with each phase utilizing specific data gathering and processing techniques. The first phase, circumspection, involved gathering all thoughts, issues, and materials that were relevant to a topic for the purpose of highlighting important issues. Focus groups were used during this primary phase. The

next phase, preemption, was where the issues in Phase 1 were explored and evaluated by the researcher. During this phase observations and participation were conducted. Casual conversations between observer and participants were recorded and using during this phase. Further, media in the form of player-created songs and websites were examined. The final phase, control, is a process of clarification. This took place to ensure that the products of Phases 1 and 2 were true representations of the group's experiences. During this phase interviews were conducted with players who used different styles of progressing in Eve.

Informed Consent

All interviews took place within the game environment (in game). Informed consent was given in two ways. The first was in a character's biography (bio) and the second was in chat room entrance messages. Bio informed consent was administered through an avatar used to interact with the online environment and interview players. The avatar included a text description that other players read in its bio field. All informed consent information was entered in the bio field, which participants were asked to read before the interview began. Participants were then

asked specifically at the onset of the chat if they were 18 years or older, if they read the human subjects form in the bio, and if they agreed to participate under the conditions outlined in the form. This portion of the chat was kept as proof of participants' consent to having their interview included in the study.

The second form of informed consent was administered when participants entered a room created by the researcher. The room displayed a message containing the informed consent information and transmitted a copy of the form onto the participant's computer. Participants were then asked specifically at the onset of the chat if they were 18 years or older, if they read the human subjects form displayed, and if they agreed to participate under the conditions outlined in the form. This portion of the chat was kept as proof of participants' consent to having their interview included in the study.

Some participants automatically received a copy of the human subjects form when they entered the chat room created for interviewing. This occurred because the Eve program automatically tracks and records all conversations onto a player's computer. Participants were informed on how to obtain a copy of the human

subjects form from their chat logs through directions
included in the consent form.

Confidentiality

Collected transcripts and records were stored in a
computer, which was then password locked. No personal
identifying information was collected on the
participants. Since all players have unique names for
their avatars, names and affiliations were used to
identify players. Avatar names and identifying
information were changed or removed for the publication
of the transcripts. Digital and hard copies of
transcripts and other records were kept in secure
locations accessible only by the researcher and the
dissertation committee.

Focus Groups

A general call for participants was conducted to
gather focus group members. Solicitations for pirates,
active corporate members, and con artists/corporate
spies were placed on Eve bulletin boards and advertised
on Eve-related sites. Participants were also recruited
by word-of-mouth and directly requesting available
people to join. A total of 14 players participated,
with 5 pirates, 4 corporate members, and 5 con artists
participating in their respective groups.

Members met in a password-protected, in-game chat channel to discuss information specific to their particular group. Participants were encouraged to use alternate characters (alts) to protect the identity of their main character (main). Participants were asked how they became interested in Eve. Participants were then asked what they thought the goal of playing Eve was and what it meant to win at playing Eve. They were also asked to state different methods they used to progress ahead of other characters. Then participants were asked to discuss what led them to their current position in Eve and where they planned to take their character in the future (for exact questions, see Appendix A). Supplementary questions were added throughout the focus groups to expand on various answers that required further inquiry.

Observation and Participation

Through an avatar the researcher spent a minimum of 20 hours traveling through areas of Eve to observe and participate in the cooperative and aggressive behaviors of other players. A journal including relevant dates, times, locations, and events was kept by the researcher during the observation phase. Observations took place by the researcher using

available channels to identify a system of interest.
The researcher also traveled through systems to
encounter players or groups of players in hopes of
watching and interacting with them. The researcher
used public avatar profile information as a method of
narrowing the search for players to observe and
question in Eve. This information includes character
bio information, security status, and corporation
affiliation.

Corporation members and pirates were observed.
Participation took place through stealing a
corporation's goods, camping with pirates, intruding
inside claimed space, running a market scam, and
participating in a corporate activity. All usable
conversations were recorded, transcribed, and
processed.

Miners working cooperatively were observed. The
researcher then used techniques described by
participants in Phase 1 to procure some of the observed
players' goods. After several thefts the researcher
then returned the goods to the observed players and
initiated a conversation.

While organizing a corporate mining project a
player noted to the researcher that he was just
attacked by a group of pirates while attempting to

gather materials for the event. The researcher used
this opportunity to observe piracy and headed to the
system where the attack occurred. Upon reaching the
system, the researcher was informed by a pirate that
their group was just ending their blockade but was
willing to talk. This conversation was recorded, and
the researcher returned to the system another day to
observe and converse with the pirates again. Following
observations the researcher used an alt avatar to
participate in pirating. The researcher eventually
attacked and aided in the destruction of another
player's avatar.

Intruding upon an alliance's territory was done to
better understand the effects of exploration and risk
taking in an online environment. The researcher used
an avatar and ship of considerable value in the online
community to increase the impact of his avatar's and
ship's destruction. Upon reaching his destination
inside the hostile territory the researcher then headed
out. During his exit he encountered players patrolling
their territory who then attempted to destroy his
vessel. The researcher engaged one of them in
conversation to be used as part of the project.

A marketing scam was perpetrated through the
creation of a character identical to one selling an

object that was easily misrepresented with a cheaper version of it. The con alt was then used to place the cheaper goods with a faulty label and inflated price on the market. The scam was successful, and the researcher recorded the results.

A mining activity was arranged with a corporate member to help him obtain a better ship. The researcher arranged a location for them to meet. The corporate member and researcher met on two occasions to produce material for the ship. The first instance involved only mining. The second instance involved mining and combat to produce currency for the purchase of difficult-to-procure materials. During a mining operation a possible aggressor was identified and questioned. The researcher used the interaction as a chance to participate in and observe the effects of charity by donating a large sum of online currency to the character. The conversation was then recorded and added to the study's material.

The presence of members of a particular corporation or alliance in large numbers was used to determine organized groups of players. Actions and interactions were observed and recorded. In one instance participation immediately followed observations. During participation the researcher

explained the purpose of his interactions and received informed consent from players whose conversations were included in the study.

Conversations

Eve is a computer world with both a graphical and a textual interface. The Eve program records all text-based conversations in which a player engages. The usage of both private and public chat rooms to engage in social interactions allowed for all conversations to be easily recorded and transcribed. Conversations broadcasted in public channels were included in the study. Private conversations in secure channels were included when participants gave consent.

Media

Samples of media in the form of songs and websites were included in the study. The collection process for Eve-specific songs was based on song popularity as defined by the song's download frequency at a website associated with streaming music for Eve players. The top four songs found during the data collection process were transcribed with individual prose placed on numbered lines. Websites mentioned by participants were examined, and relevant information from them were included in the study.

Focus Group Data Analysis

The transcripts from the three focus groups were analyzed in similar fashions. Each line of the transcripts was numbered. From there concepts were broken down into individual thoughts. An individual focus group transcript was examined for the presence of various discourses, the pattern of things that can and cannot be said. Next, objective referents, things that were referred to in the interview, were pulled from the text. Then the subjective experience of the participants was inferred from the text. All concepts found were written down and referenced to the appropriate lines of text.

After the pirate focus group information was analyzed the next focus group containing corporate members was analyzed. Unique concepts that emerged were used to create new categories. This new list was used to analyze the con artist focus group. The resulting concepts were next collapsed into common themes. Model Phase 1 was eventually created to describe the data and retain the highly interactive nature of the themes found. These themes were explored in the observation and participation phase.

Observation, Participation, and
Conversation Analysis

The observation journal text, participation text, and conversation text were broken down into numbered lines to facilitate analysis. Next, individual units of thoughts were derived from the journal entries. These units of thought were compared to themes that emerged during Phase 1. Model Phase 1 was also used to find concepts in the examined media. Songs and websites were analyzed for discourses, objective referents, and subjective experience that conformed to previously found themes. Unique data were preserved to be used later to edit the emerging model. Concepts that did not conform to the themes in Model Phase 1 were examined to produce new themes and concepts. Phase 1 data were examined to look for evidence of concepts that emerged in Phase 2. The compiled data were used to create new concepts, which were then used to modify Model Phase 1 to create Model Phase 2.

Interviews

Two interviews were conducted to clarify Model
Phase 2's ability to capture the interactions of the
online community. Participants were asked to elaborate
on some of the themes and interactions in Model Phase
2. The interviews were analyzed for concepts of which
conformed to themes and interactions found within Model
Phase 2. Unique concepts were used to examine previous
data to create a new theme and modify Model Phase 2
into Model Phase 3.

Chapter 4

RESULTS

The results from Phase 1 were used to construct a
wide range of themes. These themes were combined to
produce several main themes, which interacted with one
another. These themes and interactions were refined
throughout the project's course, resulting in the
following themes: Avatar, Commerce, Emotions of Self,
Group Affiliation, Individual and Group Interactions
and Actions, Memorabilia, Mobility, Offline Identity,
Perceived Value, Property Ownership Change, Reaction of
Others, and Reputation.

To better understand the findings relevant
concepts are discussed first. This is followed by a
description of the 12 main themes. Then the
interactions that take place between the themes are
discussed. Transcripts used the date and time stamps
generated by Eve to identify individual lines. This
was combined with a tag placed before the date and time
stamp to designate the phase and type of conversation.
Transcripts from Phase 1 begin with P1, transcripts
from Phase 2 begin with P2, and transcripts from Phase

3 begin with P3. All names and identifying information were either changed or blocked out.

Concepts

A hostile interaction between players of Eve prompts the digital environment to produce three items related to the outcome of the event. The first item is the corpse of a defeated opponent. The next two items are in game e-mails, Eve mails, generated to mark the death of an avatar. These are kill mails and death mails.

The corpse of an opponent appears at the location where his or her avatar was killed. These objects have a physical presence in the digital universe and are labeled to identify them as representing a specific dead avatar. Kill mails inform a player of the death of a victim and the players involved in the event. Death mails inform a player of the involved parties in the event that his or her avatar is killed. Both Eve mails are sent to a player following the death of an avatar.

Gate camping is a phenomenon where players strategically place their avatars at the entrances and exits into systems to attack travelers. During gate camping a pirate can work alone or in a group. Some

pirates will attack and destroy all travelers while others will attempt to collect a toll for safe passage.

System security in Eve revolves around interlinked solar systems in Eve, each having a security rating ranging from 1.0 to 0.0. The lower the security rating of a system is the less protective Eve's environmental AI police, called Concord, will be. Systems with security ratings of 1.0 through 0.5 have varying degrees of protection for players in which Concord will react to anyone who acts hostile toward another player. Concord reacts by sending AI ships to the site of the interaction and attacking the offending party. The lower the system's security rating the slower Concord's response time will be. Concord ships will not come to help a victim in systems with security ratings of 0.4 and below.

Main Themes Found

Avatar

This is the digital projection of a person into an online community. It does not represent what the person's real world self is like. Rather, it represents the results of his or her initial avatar creation combined with the consequences of choices he or she has made throughout his or her residency in the

online community. It also represents the knowledge and skills that the character in the game possesses. Through the avatar a player interacts with the digital universe. An avatar is directly affected by the online player's actions and its reputation. Through creating avatars, switching avatars, and controlling multiple avatars (P2 Pirating 3 15:30:56--Pirating 3 15:32:21) a player is capable of using a new identity to interact with the universe to circumvent reputation issues incurred by one avatar (P2 Pirating 06:02:13--P2 Pirating 06:02:52).

Commerce

This is the ability to trade currency or property for other property or service (P1 Corporations 21:15:27--P1 Corporations 21:17:04). Commerce is not the act of trading. This theme represents the ability to trade, which is affected directly by an avatar's mobility, reputation, and ownership of property.

Emotions of Self

This represents the emotional response of a player to events that happen to his or her avatar. While it is technically part of the Offline Identity category, it was separated to better show the interactions that take place with it. Factors that directly affect a

player's Emotional Self are the reactions of others,
memorabilia, the perceived value of an object or event
involved, the reputation of the avatar, and changes in
the avatar.

Group Affiliation

This is the state of belonging or being associated
to a particular group. The association can be
recognized by the player or by others who encounter the
player. Group affiliation is directly impacted by a
player's avatar, reputation, and individual and group
interactions and actions.

Individual and Group
Interactions and
Actions

This encompasses all activities that a participant
engaged in alone or with the help of others. These
activities could involve interaction with the system,
such as attacking nonplayer characters (NPCs), changing
a ship configuration, or changing one's biography.
This theme also encompasses working alone or with a
group to interact with the environment, a single
player, or a group of players. Further, the activities
and interactions can be the result of a previous
interaction with another individual or group.

Memorabilia

This category represents material within the digital (P2 Pirating 05:19:16, P2 Pirating 05:21:35) and real world (P2 Pirating 05:19:54--P2 Pirating 05:20:11) that serve to remind a participant of an event. Memorabilia is directly affected by the perceived value associated with the material (P2 Pirating 05:21:35--P2 Pirating 05:22:23), the reaction of others (P2 Spy 03:49:49--P2 Spy 03:50:05), and a player's ability, through his or her mobility, to collect the memorabilia.

Mobility

One method online environments use to create physicality is through giving avatars the ability to travel through a digital landscape. This category represents the ability to move an avatar from one part of a digital realm to another. Mobility is directly affected by an avatar's reputation as well as the property which it owns. Further, mobility can be affected by the reactions of others who can restrict movement (P2 Pirating 05:53:04--P2 Pirating 05:53:46, P2 Corporate P2:33:08--P2 Corporate 02:39:44). Avatars with low security ratings or bad reputations are unable to travel freely through some sections of an online

community. To counter this, a player can create
another identity with a clean record. Thus mobility is
conferred by using an alternate character to allow a
person the freedom of movement to gain property (P2
Pirating 3 15:13:31--P2 Pirating 3 15:14:54).

Offline Identity

This encompasses who a person is in real life, the
player. The player interacts with an online community
through a digital character called an avatar. A
person's emotions can be directly affected by
interactions between his or her avatar and the online
community.

Perceived Value

This theme represents the perceived value the
player or another player has given to an event and
objects related to that event. Perceived value is a
judgment players make relative to the worth they assign
to actions or objects. It is directly affected by
property ownership and individual and group
interactions and actions.

Property Ownership Change

Property ownership covers owning digital objects
such as ships and blueprints to build other property.

This category also includes claims laid to territory in the digital landscape, which is considered to impart the owners with a form of power in the online community (P1 Corporations 21:30:30--P1 Corporations 21:31:13). Property ownership change is directly affected by the reactions of others, commerce, group affiliation, and individual and group actions and interactions.

Reaction of Others

    This is the reactions another person has to the actions of the player's avatar. Reactions include actions that take place in the online world, such as attacking, writing e-mail to the player, a public broadcast, transferring goods to the player, and having a conversation with the player (P2 Pirating 1 05:08:26). This theme also includes the emotional reaction of the other player in the real world and actions they do in reaction to an event in the digital world. The reactions of others are directly affected by individual and group interactions, actions, and the reputation of an avatar (P2 Pirating 06:01:53--P2 Pirating 06:04:29).

Reputation

    Reputation is how an avatar is regarded in the eyes of a digital community. This is comprised of what

people know by word of mouth as well as information
published about the avatar. Having a good reputation
within online worlds is perceived by players as one
method of forwarding their agendas (P1 Corporations
21:15:27--P1 Corporations 21:17:04). Both word of
mouth and published information can be spread by the
avatar, an alternate of the same player, other players,
or the environment.

<div align="center">*Interactions*</div>

The themes are concepts that were found to be
central to a player's interactions with the online
world. Those themes were found to interact causing a
player to flow from one theme to another in order to
reach a desired result. These themes were then
organized into a model to illustrate the interactions
between them (Figure 1).

Avatar

Emotion Self. Changes to a person's online
persona create an emotional response in the player that
affects him or her in the real world. These changes
can be in the avatar's skill level (P1 Corporations
21:03:22), appearance (P1 Pirates 18:15:33, P1 Pirates
18:52:26, P1 Pirates 18:50:55), or physical state. An

avatar's physical state can be secure, insecure, or unsecure state. A secure state is found when an avatar is in a ship with adequate defenses. An insecure state is reached when the avatar is in a ship lacking adequate offensive and defensive resources for its current situation. An insecure state is also met when an avatar's vessel is under attack. An unsecure state is met when an avatar is found defenseless with death imminent or having just occurred (P2 Pirating 06:09:56).

Group Affiliation. A participant's avatar's identity has progressed to become an accepted part of an online group or the avatar's actions have made it associated with a group (P2 Pirating 06:15:57).
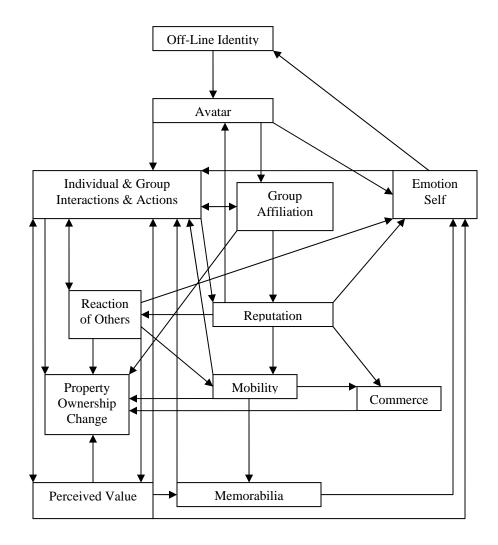
Figure 1. Main themes found in online environments and the

interactions between them.

Individual and Group Interactions and Actions. A player uses an avatar to interact with the online world. The avatar is used to perform actions within the world that can affect the world as well as other players within it. Through multiple avatars a player is capable of creating multiplicity in the online world. By doing this, the player is capable of gaining benefits of being two people at once (P2 Pirating 3 15:44:56--P2 Pirating 3 15:45:30).

Commerce

Property Ownership Change. Through the avatar a player is capable of engaging in commerce. Through commerce an avatar is capable of exchanging property, currency, or a service for each other.

Offline Identity. Events in the online world create an emotional response in a player that directly affects him or her in the real world.

Individual and Group Interactions and Actions. An emotional reaction of a person can compel him or her to act or interact with others or the environment. This can either encourage a negative interaction such as combat (P1 Pirates 18:18:04-P1 Pirates 18:18:09, P2 Pirating 04:59:04) or a positive interaction such as

helping a person (P2 Pirating 05:23:00--P2 Pirating 05:23:35, P1 Corporations 21:08:40). Further, fear of imminent attack can compel a person to seek a safe hiding spot (P2 Pirating 2 04:07:52). The threat does not have to be real or confirmed, the perception of a possible threat is enough to compel players to seek safety (P2 Pirating 2 04:10:02--P2 Pirating 2 04:11:15). Fear resulting in a lack of trust can also dissuade players from interacting with other players on a certain level, such as being fully accepted in participating in a group's activity (P2 Pirating 3 14:43:24--P2 Pirating 3 14:44:50).

Group Affiliation

Individual and Group Interactions and Actions. Belonging to a particular group has allowed a participant to engage in activities with that group. Participants in the same corporation and alliance tend to engage in activities together or for each other (P2 Spy 03:56:15--P2 Spy 03:58:19). Group affiliation increases social interactions between players as well as cooperative endeavors (P1 Corporations 20:44:22--P1 Corporations 20:46:03). Being affiliated with an organization can provide protection from attack by players (P2 Pirating 3 14:46:39--P2 Pirating 3

14:47:11). Group affiliation creates an expectation of helpful interactions when a player is in need (P1 Corporations 20:59:55). It can compel another player to provide help when it is needed (P1 Corporations 21:08:40). Further, group affiliation has the ability to prevent a person from participating with a group. Players who are perceived to be affiliated with a group may be prevented from participating with other groups.

Property Ownership Change. Being affiliated with a group can result in property ownership. Some groups have a communal attitude, which compels members to share resources with others (P1 Corporations 21:07:12, P2 Corporate 2 23:34:59--P2 Corporate 2 23:35:38). This help might be contingent on the perception of whether the person actually needs the help (P2 Corporate 2 23:35:38). Group affiliation resulting in property change can occur on an individual level; some players report receiving or giving property to another player. This can also take place on a larger scale where portions of an organization's resources are shared amongst players (P1 Corporations 20:53:43--P1 Corporations 20:54:35).

Reputation. Becoming affiliated with an organization can positively or negatively impact a

person's reputation. Participants report that
affiliation with an organization can result in
friendliness, fear, or hostility from others (P2
Pirating 2 04:27:53).

Individual and Group
Interactions and Actions

Group Affiliation. Activity with a group can
result in a player's increased affiliation to that
group. The player is recognized as becoming more
associated with that group by people within the group
and others outside of the group (P2 Pirating 2
04:56:57--P2 Pirating 2 04:57:23). Helpful group
interactions also produce an expectation of an
increased chance that help would be reciprocated when a
player is in need (P1 Corporations 20:08:01--P1
Corporations 21:08:40). Positive group interactions,
such as group combat against a common enemy, can result
in increased group affiliation (P1 corporations
20:47:36). While interactions between a player and a
group, such as pirates, might cause outsiders to
perceive a player as being affiliated with that group,
the group itself can still refrain from considering the
person as one of them and exclude him or her from

aspects of group interactions (P2 Pirating 3 14:43:24--
P2 Pirating 3 14:44:10).

Perceived Value. A value is assigned to events or
products of events before a player makes an emotional
reaction. If a player perceives that the interaction
yielded a positive result (P1 Corporations 20:59:00--P1
Corporations 21:00:38) then the player himself or
herself can have a positive emotional reaction to the
interaction. Player actions can also result in the
creation of items that are perceived to have value.
That value can be sentimental, such as a battleship
that is the result of a group's work (P1 Corporations
20:46:34--P1 Corporations 20:47:21). The event itself
can have a value that directly stimulates the person to
have an emotional response (P1 Corporations 20:46:34--
P1 Corporations 20:47:36, P1 Corporations 20:49:46).
Objects perceived to represent an event are saved and
become memorabilia.

Emotions of Self Through Perceived Value. An
action as an individual (P2 Spy 03:58:19) or group (P2
Pirating 05:05:20) when perceived as having value can
emotionally stimulate a person (P2 Pirating 05:09:21).
Working on a task as a group can create feelings of
enjoyment amongst players (P1 Corporations 21:07:18).

This enjoyment of interactions with others is seen as a driving force for players to continue to inhabit online communities (P1 Corporations 20:41:57--P1 Corporations 20:43:26). The product of aggressive interactions, kill mails, can also be a source of emotional stimulation and a reason to seek out combat (P2 Spy 03:43:28--P2 Spy 03:44:56). Feelings of superiority resulting from destroying an opponent are noted as a reason for continuing to interact in an online community (P2 Song1 20--P2 Song1 21).

Property Ownership Change. The actions of an individual or a group can result in a gain of or change in property ownership. Property can be the results of interactions such as combat (P2 Pirating 05:31:39--P2 Pirating 05:32:29) or payment of a toll (P2 Pirating 1 05:06:13--P2 Pirating 1 05:07:33). Property can also be gained from interactions with the environment (P1 Corporations 21:03:56--P1 Corporations 21:04:51) to produce materials. These actions lead to ownership of items, such as minerals, which can then be acted upon again by a group to produce another object, such as a ship.

Reaction of Others. When a group containing a player or the player alone interacts with another

player or group of players, the outcome results in a reaction of others. This reaction to the interaction can be positive, such as receiving an expensive piece of equipment (p1 Corporations 20:59:00--P1 Corporations 21:00:38) or online currency (P2 Charity 01:17:46--P2 Charity 01:20:44). A perception of a positive interaction can lead to a player feeling good about himself or herself and the interaction. The player's presence can have an unintended result, such as a reaction of fear or suspicion from others (P2 Charity 00:29:39--P2 Charity 00:30:51). The interaction can also be negative, such as an attack, and result in a negative reaction from the other player (P1 Pirates 18:15:59). This reaction can then result in the production of memorabilia (P1 Pirates 18:15:16, P1 Pirates 18:16:03--P1 Pirates 18:16:26). For some players the emotional reaction of another player is the desired result of a negative interaction, such as theft (P1 Scammers 22:30:01).

Reputation. The actions of an individual or a group can result in a change in the reputation of an avatar. A negative interaction, such as killing someone, can damage

an avatar's reputation to the point where it becomes hunted by the offended group (P2 Pirating 3 14:44:50-- P2 Pirating 3 14:46:19).

Memorabilia. A player keeps material because of its emotionally and cognitively stimulating effect (P2 Pirating 05:47:28--P2 Pirating 05:48:00). The memorabilia can be in the form of hate mail received for an act of aggression (P1 Pirates 18:13:13--P1 Pirates 18:13:21) or theft (P1 Scammers 22:17:44--P1 Scammers 22:18:09). Hate mail, contrary to the purpose of it being sent, is sometimes viewed as a source of humor, enjoyment, and satisfaction (P1 Scammers 22:17:44--P1 Scammers 22:18:27). Loss of memorabilia, such as one's first ship, can also be the source of frustration and anger (P2 Corporate 02:22:36--P2 Corporate 02:22:58).

Individual and Group Interactions and Actions. Memorabilia can serve as a reminder of previous mistakes and compel a player to act a certain way to avoid those mistakes. Players keep death mails, system-generated motivation of their own demise, as a reminder of defeat. The mails then provide the player with motivation to prevent further actions that would result in a loss (P2 Spy 03:50:29--P2 Spy 03:52:31).

Also, memorabilia can be used to interact with other
players. One player noted using another player's
corpse as a means of mocking his opponents (P2 Spy
03:49:49--P2 Spy 03:50:05). Media also suggest corpses
can serve to instill fear in others (P2 Song 2 36).

Mobility

   Commerce. The ability to move freely through
areas allows a person to partake in trade with other
players. A reduction in mobility due to wars and
security status issues (P2 Pirating 06:07:15--P2
Pirating 06:07:56) results in players being unable to
purchase items at reasonable prices or at all. To
facilitate commerce some players increase their
mobility by using alts to aid in the transportation of
goods (P1 Corporations 21:17:15--P1 Corporations
21:18:35).

   Individual and Group Interactions and Actions.
Mobility of an avatar can lead to both individual and
group interactions. The ability to secretly move in a
cloaked vessel allows players to facilitate the
strategic movement of allies (P2 Pirating 2 04:14:26--
P2 Pirating 2 04:15:09). Mobility facilitated by a

cloak can also allow safe passage in hostile areas (P2 Pirating 2 04:57:36--P2 Pirating 2 04:57:56).

Memorabilia. Mobility is an issue when collecting memorabilia from hard to reach locations. For pirates, mobility is imparted with the usage of alts with good security statuses that can freely move through a system (P2 Pirating 2 04:40:22--P2 Pirating 2 04:42:41).

Property Ownership. Movement through an online community is needed to obtain objects in other parts of it (P2 Corporate 02:30:39--P2 Corporate 02:33:08).

Offline Identity

A player's personal choices are expressed in the digital world through his or her avatar. The avatar is a creation of the player. It does not have to resemble the player's real world self in any way. Further, a player can achieve multiplicity by controlling multiple avatars.

Perceived Value

Emotions of Self. Perceiving that another lost something of value can directly emotionally stimulate a person (P1 Pirates 18:12:52). If the person is perceived as being capable of handling the loss or

deserving the loss then joy can be experienced (P2
Pirating 05:06:48, P2 Pirating 05:11:29--P2 Pirating
05:13:03). Regret can also be experienced if the
person is perceived as not being able to handle the
loss (P2 Pirating 05:27:49--P2 Pirating 05:28:07). The
perceived value of a ship being piloted can also result
in fear. One participant noted that the presence of a
cloaked vessel made him nervous even if he was in a
ship with superior fire power (P2 Pirating 2 04:13:37--
P2 Pirating 2 04:13:44). The value of such a vessel is
found in its ability to facilitate the mobility of
others (P2 Pirating 2 04:14:32--P2 Pirating 2
04:15:09).

   Individual and Group Interactions and Actions.
The perceived value of an object or interaction can
compel a player to act (P2 Spy 03:11:10--P2 Spy
03:13:16, P2 Spy 03:23:10--P2 Spy 03:23:23). Players
may also attack other players because they perceive
their actions as being of a lesser value than their own
(P2 Pirating 05:33:13--P2 Pirating 05:34:02).

   Memorabilia. If an object in the real world or
game is perceived to have value it will be kept by the
player as memorabilia of the event associated with it
(P2 Spy 03:49:29--P2 Spy 03:50:05). This memorabilia

can represent the event or serve as a reminder of the event. Memorabilia generated by the online world comes in the form of corpses and kill mails. Memorabilia created by players can come in the form of hate mail (P1 Scammers 22:35:21--P1 Scammers 22:35:45), recordings (P1 Pirates 18:39:20--P1 Pirates 18:39:32), and websites (Vogon, 2005).

Property Ownership Change. In some interactions a player is forced to decide whether or not to pay an aggressive player a fee to be left alone. An example of this can be seen when players pay pirates who are camping at a gate to prevent their avatar from dying (P2 Pirating 1 05:09:11). Before the victim relinquishes his or her currency or property he or she judges if the exchange is worth the probability of loss, which could happen if the pirate's demands are not met.

Property Ownership Change

Commerce. Owning a piece of property allows one to sell it (P2 Pirating 05:32:29). Further, the property itself may become a source of material for commerce. Property can come in the form of territory,

currency, or objects that can be exchanged for other territory, currency, objects, or services.

Mobility. Ownership of property directly affects a person's ability to move throughout a digital world. Objects used to travel can grant an avatar evasive abilities (P2 Pirating 06:06:39--P2 Pirating 06:06:58). It can also allow the player the ability to transport goods.

Perceived Value. The reaction to ownership of a piece of property is highly dependent on the perceived value a player prescribes to the gained items. If a player has a need for an object, then the perceived value can result in a positive emotional response (P2 Corporate 7 04:23:49--P2 Corporate 7 04:24:57).

Reaction of Others

Emotion Self. Knowing one has affected another's emotions leads to one's own emotional gratification (P1 Pirates 18:17:07, P2 Pirating 06:01:53--P2 Pirating 06:04:29). For some players it is a sense of satisfaction and belonging when helping another person and perceiving that he or she is happy. For other players, the sense of gratification, joy, and satisfaction is derived from evidence that another

player has been adversely affected by their actions (P1 Pirates 18:12:13, P2 Pirating 1 04:43:41) or the actions of their team mates (P2 Pirating 1 04:43:25--P2 Pirating 1 04:43:34).

The emotional effect of another's reaction to a player is directly related to the nature of the other's reaction. In an attack, if the victim's response is negative the attacker will gain a sense of satisfaction (P2 Pirating 05:28:42, P2 Pirating 05:30:02). A negative reaction from a victim can also result in public ridicule (P2 Pirating 1 04:23:36--P2 Pirating 1 04:23:58). If, however, the victim is perceived as not deserving the incurred loss, the feeling experienced by the player can be remorse (P2 Pirating 05:27:49--P2 Pirating 05:28:07).

Individual and Group Interactions and Actions. An individual reacts to an event by instigating or continuing interactions with the player or a group of players. A positive example of this type of reaction is a player helping another player out because of a previous positive interaction (P1 Corporations 21:08:06--P1 Corporations 20:59:55). A previous negative interaction can also compel a player to attack another player (Vogon, 2005).

Perceived Value. Another player's emotional response can result in the creation of something that the player perceives as having value. This perception of value can lead to the digital or real world object becoming memorabilia of an event. For negative interactions this commonly comes in the form of hate mail. The hate mail is generated by someone as a reaction to a negative interaction between him or her and another player. The player then prescribes value to the hate mail as a reminder of the event and it becomes memorabilia.

Mobility. The actions of another player can restrict mobility by preventing travel through systems. Pirates blockading gates can restrict the flow of traffic through a system. The result is a decrease in mobility of a player (P2 Pirating 05:53:04--P2 Pirating 05:53:44).

Property Ownership. Another player's emotional response resulted in the player gaining something. A positive emotion, such as charity and kinship, resulted in a player receiving property or currency from someone. Fear can also compel some others to give a

player property or online currency (P2 Pirating 1
05:06:13--P2 Pirating 1 05:07:33).

Reputation

   Commerce. An avatar's reputation can facilitate
commerce in two ways. The first is through its ability
to advertise what services and items an avatar has
available for purchase or trade. The second is through
the avatar's reputation as spread by other players to
other players.

   Emotion Other. An avatar's reputation is capable
of affecting the emotions of others through inciting
fear and anxiety (P2 Pirating 05:10:08--P2 Pirating
05:10:44) in other players. This can occur when an
avatar's reputation precedes it. It can also occur
when the avatar's reputation is evident in visible
system records.

   Emotion Self. A sense of satisfaction is obtained
by a player who perceives his or her reputation to be
in a desirable state (P2 Pirating 05:10:08). Open
system records that indicate a player's reputation can
result in a feeling of accomplishment and empowerment.
This is especially true if the player has previously
experienced a reaction of fear (P1 Pirates 18:50:42)

from other players to their displayed reputation (P1
Pirates 18:50:36).

Group Affiliation. The reputation of an avatar
can affect its affiliation with others. An avatar can
attempt to disguise its affiliation by attempting to
change its reputation (P2 Pirating 1 04:07:13--P2
Pirating 1 04:07:23). In this instance known pirates
attempt to disguise their identity by claiming to be
miners. A player can also purposefully manipulate
system records that directly affect his or her
reputation in hopes of increasing his or her ability to
instill fear in other players.

Mobility. An avatar who is seen positively by the
system and population will have easy movement within
and between systems. A negative perception of an
avatar can result in restricted mobility (P2 Pirating
06:01:53--P2 Pirating 06:02:52). This restriction is
imposed both by the environment and by other players.

Avatar. Reputation is a part of an avatar's
online identity and reflects all the interaction the
avatar has had with the system and with other players.
Players can easily change their reputation by creating
a new avatar. This, however, comes at the consequence

of a reduced ability to manipulate the online world due

to the reduced skills available to the newly formed

avatar (P2 Pirating 3 15:01:35).

Chapter 5

DISCUSSION

Themes and Interactions

The project resulted in two interrelated pools of data, which bare relevance to the posed research questions. These pools were the 12 themes and the methods players used to manipulate these themes to progress within the system. The elements of each pool can be used to identify areas of possible manipulation within online worlds. The pools also offer insight into the motivations behind actions of individuals interacting with an online community.

Central Concepts

The model of online interactions contains 12 major themes. Each theme and the relationships between them represent important aspects of online interactions. An examination of their relevance to forensic and clinical issues will yield useful information in dealing with problems found in online communities.

Avatar

Avatars become the embodiment of a person's initial creation choices and online interactions. An avatar's reputation reflects all of its online interactions with the environment and others. An avatar is also the online presence that a player uses to gain group affiliation. Avatars serve as a starting point of entry into an online community. The ability to create multiple and disposable avatars allows a person to continually renew his or her reputation and affiliations as well as create multiple identities. Players have noted using different characters for different types of interactions.

Alt wars give a player the ability to act aggressively while protecting his or her main avatar's reputation and group affiliation. While some in online communities look down upon it, the phenomenon is an accepted part of online communities. This can become problematic in future online interactions if this becomes accepted as the norm. It encourages people to split their interactions into different personas embodied by avatars. Interactions then become dichotomized with pleasant and hostile interactions being expected from only certain avatars.

Players who use an avatar to engage others in hostile acts run the risk of that avatar losing its affiliation to some groups. This loss would impact its reputation, abilities to interact with others, and its property ownership. Such a threat is further encouragement to dichotomize one's personas through multiple avatars.

Investment in Avatars

Investment in an avatar and its subsequent ability to affect a player in the real world stems from several sources. The first is that an avatar becomes the embodiment of offline and online efforts of a player. A player chooses an avatar's name, appearance, and sometimes abilities. These choices serve as initial investments in the form of effort in the real world. Along this line the reputation of an avatar is the result of online interactions, group affiliations, and the reactions of others. Reputation, which is linked to an avatar, is the sum of a person's offline efforts and online experiences. Further, an avatar becomes the means through which a person can project physicality in an online community. This physicality is linked to group affiliations and individual and group interactions and actions.

Avatars as Vehicles

A new perspective to take on avatars is that they serve as a vehicle. Under this perspective an anonymous player is not affiliated with an online social group; it is the avatar that is affiliated with a group. Players use the avatar as a vehicle to become affiliated with that group whenever they control it. This is because while a person may feel affiliated to a certain online group that affiliation is tied to an avatar. The avatar is the physical presence that is linked to group affiliation. If the player attempts to interact with the group with a different avatar, it would be considered an outsider. The only way this can be resolved is through bridging the new avatar's identity with the old one.

An avatar imparts physicality through its ability to interact with others and the environment in an online community. This physicality not only gives a player the ability to socially interact with others, it also allows the player to affect others and the environment through developed skills. These skills are tied to an avatar and learned over time. This creates value in an avatar by it becoming the means through which certain skills can be exercised.

Together these investments and aspects of physicality can emotionally affect a person in the real world. This takes place through the person's emotional attachment to his or her avatar. Thus if a player reacts emotionally to an event that directly affects his or her avatar, the player is actually reacting to an event that is affecting his or her investment, sense of group affiliation, and ability to interact in the online community.

Clinical Insights on Avatar Investment

Clinically, this perspective on avatars gives insights into possible reasons behind the phenomenon of cyber addiction. Players who are overattached to an avatar could be drawn by the investments they have made in the character offline through time spent on a system, payments for entrance into the community, payment for equipment used to access the online environment, and creative efforts made to construct the avatar. While these actions serve to increase investment in an avatar, their purpose is to develop an avatar. Therefore, the purpose of an avatar's existence should be looked at for investment in an online character.

An avatar is the sum of an online presence such as skills, ability to interact, group affiliations, and the avatar's reputation. From these themes one can derive that an avatar gives players a sense of empowerment, an ability to interact with others, a sense of belonging, and a sense of importance. For psychologically healthy players, online communities impart enjoyment from fulfilling these needs. For others, however, addiction to an online community is an indication of a real world need that has resulted in an overinvestment in a fictitious character whose purpose is to artificially supplement that need. An addiction and reliance to online interactions indicates that a player does not have the adequate offline social, physical, or emotional resources, or a combination of either resources, to fulfill his or her needs. Removing access to an avatar effectively severs players from their only available means of fulfilling their needs.

Emotions of Self

The emotional reactions a player has to an online experience is central to the gaming experience, for it is the one theme in online interactions that directly affects a persons' offline self. Research also points

to a desired emotional reaction to be the ultimate goal for observed online interactions. This importance of emotional stimulation to gamers is another interesting outcome of the research. Because, if people were playing Eve to accumulate and exercise power, ultimately that power is defined as the ability to influence one's own emotions through a complex series of interactions within the online world. The networked program serves as a medium through which a player can interact with others to achieve a desired emotional stimulation.

Directly and Indirectly Emotionally Stimulating Self

Through viewing a player's own emotional stimulation as the ultimate goal, actions of the offline and online self are respectively attempts to directly or indirectly stimulate an emotional reaction. Direct stimulation occurs through choices that a player makes to alter his or her avatar. These choices are made to enhance the player's ability to interact with the online world through his or her avatar. Because of this, the emotions they elicit are directly related to the way choices affect the avatar. Developing skills to produce defensive abilities produces feelings of security while developing skills for offensive

abilities produces feelings of empowerment. The act of sculpting and naming an avatar also fulfills a need to be perceived a certain way, such as being feared or being affiliated to a certain group.

The ability to directly stimulate one's emotions is limited to the emotions resulting from changing an avatar's presence. Indirect stimulation, however, is far more complex and varied due to the wide assortment of interactions the environment and other players provide. Through an avatar a player can indirectly stimulate his or her own emotional response through the Individual and Group Interactions and Actions theme, which eventually leads to stimulation through Perceived Value, Memorabilia, the Reaction of Others, and Reputation.

*Indirect Stimulation and Forensic
Implications*

The outcome of interaction with the environment or others can have a secondary effect of stimulating a player's emotions if the event or a product of the event is perceived to have value to the player. This is seen when pirates feel empowered through defeating another person and when corporate members feel a sense of self-satisfaction from helping someone. Each of these events involves a player's perception of having

affected someone. Whether this interaction is perceived as being of positive or negative value to the victim or friend determines the player's own emotional reaction. Understanding the value a player associates with an action is the key to understanding the emotional need that the player is attempting to fulfill through his or her online interactions.

Through interactions with others or the environment a player can produce or acquire property that can become memorabilia. These are objects that are capable of affecting a player's emotions by reminding him or her of events that are associated with the object. Memorabilia can come in the form of something produced by the environment, the act, or the player to record the event. Another form of memorabilia is e-mail or other recorded messages or communications between players. These include hate mail, kill mail, and death mail. Hate mails are e-mails received from another player that contain emotionally charged negative messages. Kill mails are messages created by the environment confirming the destruction of another's avatar. Death mails are messages generated by a system that inform a player of the death of his or her avatar.

For some players the reactions of others is the ultimate point of an interaction. Perception of this reaction emotionally stimulates a player and can prompt further interactions to receive repeated stimulation. The actual real world emotional reaction of the other player does not matter. What does matter is if that player is perceived to react a certain way. Forensically this concept is pivotal to halting unwanted interactions in an online community. Through stifling and muting any controllable reaction that could result in an emotional response, a victim can dissuade further interactions.

An avatar's reputation is the sum of a person's online experiences. Every interaction a person does in an online community adds to an avatar's reputation. This reputation eventually becomes an irreplaceable unique aspect of someone's online persona. Evidence indicates a reputation is so important that some players will artificially inflate their reputation to help incite a needed emotional response in others.

Repeated attempts to artificially inflate one's reputation with increased measures should not be taken lightly. One example of this would be a player who purchases increasingly larger and larger amounts of online currency with real world money. Another example

would be a player using an alt to spread information about his or her main.

Acts such as these are indications of a player's inability to deal with situations in conventional means. The player has already left the real world to fulfill his or her needs in an artificial world. These worlds have rules by which avatars progress. A player who attempts to artificially progress his or her avatar is attempting to bypass character development stages designed into the environment and followed by other players. This is problematic because the player has already entered an artificial world to gain emotional stimulation. Resources used to inflate his or her avatar's reputation proportionately reflect that person's need to be perceived a certain way. Repeated increased dedication of resources are therefore an indication that the player's real world need is so great and his or her coping strategies are so inadequate that he or she is unable to use a fantasy world to develop his or her avatar's persona.

Methods Players Used

Group Affiliation

Players can use aspects of group affiliation to their advantage. A hostile player can attempt to trick

a victim into becoming affiliated with him or her temporarily in order to then attack him or her (P2 Spy 03:14:28). Or, a hostile player can attempt to become part of a group with the ultimate goal of attacking a person (P2 Pirating 3 14:43:24--P2 Pirating 3 14:45:06) or stealing from the organization (P1 Pirates 18:42:15).

Reputation

An avatar's reputation within the online community can drastically impact its ability to travel and interact within it. Players can manipulate their avatar's reputation which, in turn, grants them freedom of movement and action. This can take place by manipulating perceptions through conversations and through avatars.

Broadcasting disinformation in public or private channels is one method of positively changing one's reputation. Through feigning innocence thieves and pirates can attempt to deny an act ever happened or shift the blame to someone else. Victims report attackers denying an act when confronted (P2 Corporate 02:55:04--P2 Corporate 02:55:08). And thieves report publicly denying pilfering another player's property (P1 Scammers 22:20:50). Denying an act is sometimes

accompanied by shifting the blame to another player and
is a tactic used by both thieves (P1 Scammers 22:21:24,
P1 Scammers 22:20:51) and pirates (P2 Corporate
02:55:04). This allows perpetrators the ability to
either evade or perpetrate again. Some perpetrators
claim to be so convincing that others believe them and
eventually support their story (P1 Scammers 22:21:32).

Players can positively change their reputation by
legitimizing their actions through becoming
mercenaries. This allows them to attack others by
hiring out their services (P2 Pirating 06:00:58). By
doing this they can fulfill their need for combat while
fulfilling another person's need to secure his or her
territory (P2 Pirating 06:01:26).

For player pirates instilling fear is the point of
the game. This ability centers on an avatar's
appearance in the game (P1 Pirates 18:55:42--P1 Pirates
18:55:49). Visual cues that identify an avatar as
someone to be feared, such as security status or an
avatar's name, are valued by some players (P1 Pirates
18:50:36, P1 Pirates 18:50:55). These players can
artificially manipulate records in order to increase an
avatar's ability to instill fear in others (P3
Interview 1 20:34:25--P3 Interview 1 20:37:04).

When an avatar's reputation prevents a player from adequately interacting with an online world, such as restricting travel, another avatar with a different reputation can be used to act. This is a tactic commonly used by people with negative reputations that restrict their movement. In such cases an alt is used to transport goods (P1 corporations 21:17:15--P1 Corporations 21:18:35). Alternate avatars can also be used to shield a main avatar from the negative consequences of hostile interactions (P3 Interview 2 16:24:40). Players can use alts to act as pirates and engage in alt wars. An alt war is a war waged by one side that uses alts to engage in hostile interactions. Such a war is designed to anonymously cause grief to another group of players by using expendable avatars (P3 Interview 2 16:20:38 0--P3 Interview 2 16:24:59).

Players also report using limitations of the digital environment to their advantage. The environment only considers acts of violence as criminal behavior. Theft, therefore, is not considered illegal by the environment. Since players can only safely attack others who are criminally flagged, thieves can use that aspect of the environment to protect them while performing theft (P1 Scammers 22:21:30). One thief stated that stealing would not be possible

without help from the environment to deter his victims from attacking him while he loots their property (P1 Scammers 22:21:30). This is because if a victim does attack a thief, then the victim would be registered by the program as the aggressor and be flagged a criminal. And, this would result in the victim being attacked by the system.

These events punish a victim once for his or her loss and then again if he or she attempts to defend his or her property. A thief is rewarded with his or her loot and possibly a second time by the destruction of his or her victim. The system encourages criminal behavior through lacking repercussions and providing deviants a justification for their criminal behavior.

Mobility

Territory is claimed by controlling entrance and exit points. This is done by players who exercise a legitimate claim over a section of space (P2 Spy 03:41:35--P2 Spy 03:42:54) and those who wish to illegitimately and temporarily control traffic through an area of space (P2 Pirating 05:53:04--P2 Pirating 05:54:15). Temporary control over a section of space allows a player to force others to relinquish currency

or property for safe passage (P2 Pirating 05:54:01--P2 Pirating 05:54:25).

Individual and Group Actions and Interactions

Teamwork is used for both nonaggressive (P2 Theft 21:00:27--P2 Theft 21:04:46, P2 Corporate 02:18:15) and aggressive acts (P1 Pirates 17:46:04, P1 Pirates 18:07:24, P1 Pirates 18:16:10). Amongst aggressors there is an agreement that, when working together, they will not harm one another (P2 Pirating 2 04:56:57--P2 Pirating 2 04:57:23). This facilitates pirates' needs to act in large numbers to attack other players. When a physical presence in an online community is inadequate to reach a desired result, multiplicity is used. Multiplicity allows players to be their own teammate. Through alts players enhance the effectiveness of their main avatar's attack (P2 Pirating 3 15:44:56--P2 Pirating 3 15:45:30), which increases their chances of success.

Interactions with others were found to be enhanced by a repertoire of emoticons designed to increase a

sense of physicality, project emotion, and sometimes incite emotions in others. These emoticons conveyed physical expressions such as happiness with : =D (P1 Pirates 18:49:05), :D (P1 Pirates 18:50:55), and :P (P1 Pirates 18:39:11). Laughter was expressed by players typing ^_^ (P1 Scammers 22:25:48) or lol (P2 Pirating 05:54:29). The latter symbol, while being recognized as an acronym for laugh out loud can also translate to two arms up in the air. Another example of gestures through emotions is seen in waving \o (P1 Corporations 20:08:40). Emoticons can also convey a sense of blundering >.< (P1 Scammers 22:02:47), indifference :/ (P1 Pirates 17:35:39), winking ;) (P1 Corporations 21:24:57), love <3 (P1 Pirates 17:36:22), crying T_T (P1 Scammers 22:28:30), and dismay......-_-......... (P2 Corporate 02:08:12).

Justifications

Some players have found ways to legitimize their need to attack others by hiring out their services as mercenaries (P2 Pirating 06:00:58). By doing this they can fulfill their need for combat while fulfilling another person's need to secure his or her territory (P2 Pirating 06:01:26). While it legitimizes their actions to themselves and those who hired them, the

victims could still be unwilling participants in an altercation. Another attempt at legitimizing one's offenses is used by thieves who claim that the environment supports theft by allowing people to go unpunished for stealing (P1 Scammers 22:10:23--P1 Scammers 22:10:30). This, in turn, justifies their actions as a legitimate part of the game.

Players also attempt to justify their actions through blaming another player for their own victimization (P1 Scammers 22:34:23). Players claim that victimization could be easily avoided if others took the time to inform themselves and protect themselves properly (P1 Scammers 22:46:02, P1 Scammers 22:10:53--P1 Scammers 22:10:58). One player noted that the tools to avoid theft are present, and players who fail to use them deserve to be robbed (P1 Scammers 22:46:02).

Another method players use to commit piracy and theft is recontextualizing the event in their minds. This can be done by either redefining the event or the outcome of the event. Thieves redefine their acts as *removal* rather than stealing (P1 Scammers 22:16:12). This implies that property was available to be taken. Another attempt at redefining an event is seen when victims are referred to as *customers* by thieves (P1

Scammers 22:28:52). This serves to confuse the actual
role of both groups in the thieves' mind by implying
that one is providing a service that the other is
expecting. This concept is directly tied to the
recontextualization of the outcome of an event. Some
aggressors attempt to redefine an event as a valuable
educational experience to victims (Vogon, 2005). Under
this guise a perpetrator convinces himself or herself
that his or her action, which he or she acknowledges as
wrong, serves some greater good. Another attempt to
redefine the outcome of an event is when attackers
claim their actions actually add to the experience of
others (P1 Pirates 18:26:52). By doing this aggressors
legitimize their actions by claiming they are supposed
to attack others under certain situations (P2 Pirating
05:34:58).

　　　Some players' interactions with victims also serve
to minimize the effects of theft or attacks. One
player noted that he socially interacted nicely with
others but physically interacted with the same people
violently (P2 Pirating 2 04:53:42). One pirate quoted
Winston Churchill to explain this phenomenon: "When
you have to kill a man it costs nothing to be polite"
(P2 Pirating 2 04:55:33). The pairing of contradictory
verbalizations and actions is a trait found in people

with antisocial personality disorder. This disconnection between what is said and what is done reflects a disregard for others' emotions, a personality trait that has been linked to criminality.

Another method of minimizing acts of theft and violence is done through devaluing the other player's style of interacting with the environment. For thieves, this is defining the act of stealing as being superior to the act of mining (P1 Scammers 22:30:01--P1 Scammers 22:30:47). For pirates this is viewing the accumulation of online property as not truly accomplishing anything in the game (P1 Pirates 18:26:52). Some thieves note that the objects stolen are fictitious. This, in turn, makes the theft acceptable (P1 Scammers 22:08:30--P1 Scammers 22:08:43). Some players make a delineation between the theft of fictitious property and real property (P1 Scammers 22:09:50). This, however, does not account for the real reactions and real emotions that some players claim is the desired outcome of the theft or piracy (P1 Pirates 18:13:13, P1 Pirates 18:17:42).

Tied to the concept of delineating between fictitious and real property is the value prescribed to objects in a digital world. Media indicated a perception that some players are noted to take the game

too seriously (P2 Song2 77--P2 Song2 80). This concept
was also reflected in statements by thieves (P1
Scammers 22:30:45). When this occurs a player is seen
as beginning to overprescribe value to online property
and interactions. One participant's comments alluded
to this by noting that some online experiences are
better than physical intimacy (P1 Pirates 18:18:30).
There were, however, others who disagreed with the
participant (P1 Pirates 18:18:57), which indicated that
the view might not be commonly held.

Victims

The medium of an online community allows a person
to appear physically present but actually be
preoccupied in the real world. This leaves the person
open to victimization in an online community if he or
she is not paying attention (P2 Theft 21:06:06). This
can occur when a player is not paying attention to
events in an online world. Victimization was also
noted to occur when the avatar of a thief did not
appear threatening (P2 Theft 21:06:43). In situations
where a victim is unable to retaliate, a player can
minimize the offense by claiming that the amount stolen
did not have much value (P2 Theft 21:09:37). Victims
also use this tactic of devaluing for the destruction

of their property or the death of their avatar. They
reason that the impending loss will not cost them much
(P2 Pirating 1 05:09:11).

The MMORPG environments are designed to mimic a
fantasy world; the only restrictions to this
representation is the environment's programming.
Creative players explore these limitations and invent
solutions for their various needs in the world.
Emoticons are used to express emotions. A player can
control multiple avatars through multiplicity. The
online environment creates unique perspectives for
victims and criminals.

Con Games and Power

Examination of interactions found that Eve's
elements supported a person's ability to perpetrate a
con. Players noted using two or more avatars
simultaneously to reach a desired result during combat.
Players use alts to protect their main avatar's
reputation as well as give them a greater degree of
mobility. Players have also noted that infiltrating
corporations to steal from them does occur (P1
Corporations 21:12:04). This study, however, has not
found any evidence of players using the available
elements of the online community to perpetrate a large

scale con game involving two or more avatars controlled by the same person. Cons and thefts observed utilize an individual avatar to orchestrate the theft.

One interesting element that did arise is the awareness of the environment being an actor within a theft or con game. Players noted that some thefts would not be possible without the protection provided by the environment. Thieves tend to stay in systems with security ratings of 1.0 through 0.5, which allows them to steal under the protection of Concord.

This is noteworthy because it shows how the limitations of an AI security system in a digital world can create a belief that one's actions, however wrong they may seem, are acceptable. This is because an AI security system, if not properly programmed, can be taken advantage of by inhabitants of an online community. The ability to use the environment to do an act, such as theft, gives players a sense that what they are doing is valid (P1 Scammers 22:10:23--P1 Scammers 22:10:30) instead of exploiting the system's limitations.

Control Theory and Eve

Players who engage in cooperative efforts to produce objects in Eve take on a different perspective

than do aggressive players. Cooperative gamers look

down upon others who engage in piracy and thievery.

The research has shown that production-based groups

reject (P1 corporations 21:10:21--P1 Corporations

21:11:13) those who engage in piracy and thievery.

They have rules of conduct that they expect others with

whom they are affiliated to conform. Findings indicate

that individual members of production-based groups

conform to the groups' norms because of the nature of

their primary activity: the creation of objects within

the digital world.

Hirschi's (1969) control theory states that the

motivations behind crime are not as important as the

elements that prevent a crime from happening. While

evidence did show that players used their avatars

almost exclusively because of their motivations to gain

reactions from others, their methods used conformed to

the expectations of Hirschi's control theory. Some

players engaged in piracy and thievery for the purpose

of gaining emotional stimulation in the form of

excitement and empowerment. Others formed

organizations that produced emotional stimulation

rooted in a sense of community and camaraderie.

The limitations of the digital environment were

major factors for pirates and scammers. System

security ratings were found to limit the mobility of pirates and were noted as a motivation for some to legitimize their actions by becoming mercenaries. In this sense, system security helped deter crime in areas of high security space. System security, however, also created a means for pirates and thieves to justify their actions through claiming that the digital environment's lack of response to aggression or thievery is an indicator that such acts are an acceptable action in that particular system. This rationale is flawed because, while it uses the artificial environment's acceptance of the event, it does not factor in the emotional reaction of a victim in the real world--a reaction that some pirates and thieves state is the ultimate goal of an interaction.

The act of creating an object in Eve takes a large amount of time and resources. The data indicate that pirate and scammer activities lacked the coordinated and cooperative efforts to produce commodities in the digital environment. While some worked together to perform scams and gate camping, these efforts were short lived. Production-based players form a mutually beneficial relationship by helping one another achieve goals. Hirschi's (1969) four elements that provide

restraint can all be found in the process of producing an item.

The first element, attachment, can be found in the sense of community and camaraderie, which is developed when players work side by side with one another. During some mundane tasks, such as mining, players talk with one another and strengthen social bonds. Without group attachment a player has the ability to attack others without fear of social consequences.

The next element, commitment, is fostered through the act of helping and being helped. Production-based players rely on one another for materials to continue building. A communal atmosphere is formed where players realize that they depend on their social connections to obtain goods. Those who forfeit group affiliation are at risk of being cut off from needed supplies. The reciprocal nature of these communities also perpetuates an expectation of helping others and receiving help when there is a need. Together these factors of production create the element of commitment within online communities. This is why players band together in Eve to form corporations and alliances. Security and productivity increase when players band together and pool their resources.

Involvement, the third element, can be found within the act of obtaining materials for production. Players in production-based groups are expected to supply a steady flow of materials. The time commitments for mining and building reduce the possibility of a player having free time to explore piracy and theft.

The final element, belief, can be found in the reactions of miners who are scammed and have faced pirates. The emotional reactions of victims clearly illustrate a sense of having one's rights violated when attacked or robbed. Players who expend hours to obtain materials assign a value to those resources. Those who do not steal do so out of a belief that others value the digital property they acquired. Production-based players refrain from stealing and piracy because this belief means that the theft and destruction of another person's property would be a violation of something that someone else valued.

Conclusion

Eve is a vast digital universe. Players have been found to be logging on to gratify a need for some form of emotional stimulation. Some players seek a sense of empowerment, and others seek a sense of camaraderie.

To achieve these goals players have been found to take advantage of the unique aspects of CMC. While Eve may be a game, the techniques and methods found can be used to understand real world interactions. The model generated provides insights into why people partake in online communities. The techniques illustrate methods anonymous community members can use to promote their agendas. The justifications discussed show how perpetrators use a lack of repercussions from the environment as a way of rationalizing their own actions.

One of the original queries posed during the beginning of the study was to explore the nature of power in an online community. This study provides evidence that some, if not all, people inhabit online worlds for emotional stimulation. Power conferred by online currency, relationships, and military strength all serve to help a player interact with and manipulate the environment. The ultimate purpose of these interactions is to achieve an altered affective state. Power in Eve is the power to use the resources of the artificial environment to emotionally stimulate oneself in the real world.

Online communities will continue to grow in size and complexity. As this occurs so will the

opportunities for people to develop both beneficial and pathological relationships with one another. These digital worlds have become a means through which people artificially stimulate their affective states. If these communities continue to grow in their ability to facilitate human interactions, they will eventually transform the Internet from a conduit for information into an emotional superhighway.

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APPENDICES

APPENDIX A

FOCUS GROUP QUESTIONS

APPENDIX B

INTERVIEW QUESTIONS

APPENDIX C

TRANSCRIPTS