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Information Behavior and Meaning-Making in Virtual Play Spaces:

A Case Study of City of Heroes

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Information Behavior and Meaning-Making in Virtual Play Spaces: A Case Study of City of Heroes

by

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This work is dedicated to

All My Heroes, Real or Imagined, Living or Dead

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Information Behavior and Meaning-Making in Virtual Play Spaces: A Case Study of City of Heroes

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The intent of the researcher was initially to examine two questions: How are groups and/or peer cultures formed in the virtual play space of Massive Multiplayer Role Playing Games (MMORPGs), particularly City of Heroes; and how do information behavior theories, including meaning-making, and play theories, particularly in combination, might serve to explain the phenomenon of group formation and maintenance? Two other questions emerged and were added to the study. What, if any, other in-game social relationships can be explained or understood in light of information behavior theories, including meaning-making, and play theories, separately or in

combination? What, if anything do in-game social relationships contribute to successful play, particularly in terms of information and meaning? The researcher gathered data through participant observation, examination of the official and unofficial Web pages relating to the game City of Heroes and other data gleaned from casual conversation with other game researchers, players and people in the game industry. Information seeking in the game was described using McKenzie's (2002) model of information practices. Meaning-making was examined through the lens of dramaturgy (Hare & Blumberg, 1988; Brissett & Edgley, 1990; Goffman, 1959, 1974). The researcher found that group formation and maintenance was not as important at this time in this particular game as was first assumed. However, temporary teaming added significantly to the play experience. Further, the researcher determined that the virtual play space must be considered as a "deliberately created culture" with both real seeming and obviously artificial elements. There were parallels in the virtual play space to elements of everyday life information seeking in real space. Finally, the "deliberately created culture" had important similarities to a theatrical space, and the examination of the play space through the elements of dramaturgy led to further understanding of how meanings are made in the social interactions of the space, and how those meanings aid in the game play.

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Chapter One—An Introduction

1.1 Introduction

Virtual play spaces are undoubtedly new places for both children and adults to play, as they are according to Sutton-Smith (1997), "a new play form allowing adults to play almost as amorphously as children" (p.178). In fact Rheingold contends that play, "is the first thing most people do when they find themselves immersed in a virtual world" (p.373).

This research set out to answer the following questions about the formation and maintenance of peer cultures and teams in the virtual play space City of Heroes (CoH) using both information behavior theory and play theory.

-How are groups and/or peer cultures formed in the virtual play space of MMORPGs, particularly CoH?

-How, if at all, do information behavior theories, meaning-making, and play theories, particularly in combination, serve to explain the phenomenon of group formation and maintenance?

Additional questions were asked regarding other aspects of play theory, information behavior and meaning making as they related to the virtual play space.

-What, if any, other in-game social relationships can be explained or understood in light of information behavior theories, including meaning-making, and play theories, separately or in combination?

-What, if anything do in-game social relationships contribute to successful play, particularly in terms of information and meaning?

The researcher performed a descriptive analysis, considering City of Heroes (CoH) as a deliberately created culture that included both real seeming and obviously artificial elements. Both the real-seeming and artificial elements provided feedback regarding the state of the play space and the actions within it to the players. As part of descriptive analysis, the researcher used an everyday life information practices model to demonstrate how players found or were provided with the available information.

Finally, as "deliberately created cultures'" CoH, and other virtual places, have a theatrical quality. Plays performed before audiences are also deliberately created representations of reality. To examine meaning-making in the virtual play space of CoH the researcher reviewed it in theatrical terms through the dramaturgical perspective, using the work of many dramaturgical analysts as a basis (Goffman, 1959; Hare and Blumberg, 1988 ; Brissett and Edgley, 1990).

1. 2 Background about online games

Online games are played over computer networks, particularly the Internet. The games allow for two or more distant players to meet and share their game of choice, thus creating, in effect, a virtual place to play.

There are many types of online games, including traditional card games and board games with connection capabilities, as well as fantasy role-playing games. Recently, so-called massive multi-player online role-playing games (MMORPGs) have combined the concept of a graphical virtual community with the forum of play. This particular type of game constitutes the virtual play spaces considered in this study.

In such games players are presented with a persistent world to discover and with which players can interact. The gamer is allowed to choose a role (or roles) within certain designated limits and then to proceed into the game to play that role as he or she sees fit. Players interact with each other to achieve certain quests or goals and in the process often create cohesive groups, some of them quite elaborate and extensive.

Multiplayer role playing games have existed for decades on the computer in text forms such as MUDs (Multi-User Domains) and MOOs (Object oriented MUDs) for example, but within the last decade they have become more elaborate, adding graphics to multiplayer environments. They may have as many as a hundred times the number of total players, and more players can play simultaneously. For instance, currently available data regarding online games show that the total number of users of a popular MOO named LambdaMOO is 3,000 (LambdaMOO Wikipedia entry, 2006).

In 2004, EverQuest, one popular MMORPG, reportedly had users in the hundreds of thousands (EverQuest Wikipedia entry, 2006).

There are a variety of types of online communities, some for sharing information, buying and selling, and so forth, like Craigslist (http://www.craigslist.org/). Others are available for sharing political information with like-minded people, for fulfilling work or school goals, or for social interaction (for instance see Orkut at http://www.orkut.com)

MMORPGs are particular kinds of online communities that encompass both social interaction and immersive play in an "alternative environment." Murray (1997) offers insight into the social nature of online games when she refers to MUDs as gaming environments that allow distant players to interact in ways that are shared by the players as an alternative reality they all live in together. Yee's (2001) work shows that one of the most important reasons his respondents played MMORPGs was enjoyment of social interaction.

Many adults share in the alternative reality of games, spending many hours a week involved in massive multiplayer games. While gamers can choose to play as relative loners, many join others in elaborate types of social interactions in more or less cohesive groups often called teams or guilds. A majority of Yee's (2001) respondents, for instance, belong to guilds. In many ways these virtual worlds take on an aura of reality for the players. They are seemingly real places where players can choose who they want to be, without the constraints of the outside world, by designing avatars with characteristics they themselves choose. Their groups or guilds take on the role of groups of friends, with some of the friends being considered closer than those

in the outside world (Yee, 2001). The study examined whether information behavior and play combine to create the specialized groups found within the alternative world of the MMORPG, and if so, how they aid the operation of these groups.

1.2.1 Historical Background

MMORPGs spring from a variety of sources as diverse as improvisational troupes, children's playground games, groups such as the Society for Creative Anachronism, as well as pencil and paper role-playing games. The most well known of the pencil and paper type games is Dungeons and Dragons, which has been often vilified as somehow satanic or evil (Cardwell, 1994). Online fantasy games today continue to be controversial. The most often heard criticisms are that the games are addictive and antisocial.

Dungeons and Dragons and similar games have some particular traits in common with their online successors. First, one of the major appeals of pencil and paper role-playing games to players is the negotiation of rules as they play. The game's makers certainly provide a structure but they include considerable flexibility for interpretation (Fine, 1983). As the players negotiate the rules, they also negotiate the meanings of their actions and to some degree at least the actions of others within the game.

A second striking similarity is the degree of identification the player has with his or her in-game counterpart. While under most circumstances the player is clear on the difference between the avatar[1] "self" and the everyday "self" there is considerable blurring of lines. Since players overtly create the avatars and use them to act in the

[1] The depiction the player designs to embody herself in the game

virtual play space, it becomes difficult to discuss these "virtual selves" separately from the players' selves.

MMORPG environments come in a variety of styles, but the vast majority of them can be described as "Tolkeinesque" (Thompson, 2004). That is, they are imaginary worlds of myth and magic. Like Tolkein's Middle Earth described in The Hobbit (1937) and The Lord of the Rings (1954-55), they are populated by creatures (identified in many games as races) such as elves, dwarves and humans. Games tend also to have the same kind of appeal to the sense of high adventure and possess the strict division of good and evil as Tolkein's works do (Fine 1983). Other games, such as Anarchy Online (1999) have post- apocalyptic science fiction themes, and CoH's (2004) theme comes from the pages of superhero comic books. Regardless of the fantastic nature of the games, players and researchers alike view them as "places" that become as real to many players as the outside world the players live in (Castranova, 2003).

1.3 Research Goals

This study is an in-depth ethnographic study of the players of City of Heroes (CoH), as represented by their avatars. An avatar is the on-screen representation that a gamer has chosen to "embody" herself online. CoH, the MMORPG or virtual play space studied here went online in 2004 and had approximately 100,000 subscribers as of March of 2005 (NCSoft, Cryptic and Top Cow Productions making comic book series, posted 3/01/05, para. 3). The number of users at this time is not entirely clear, although it is clear that, with the addition of an add-on that allows players to play as

villains as well as heroes, the number of players has increased. New groups or teams are being formed regularly, and team formation is highly supported by the game's structure. Because it was a new enough game for players to be forming groups regularly, rather than an older game that was either losing players or had groups that are so established that it was difficult for new players to be accepted into them, CoH seemed particularly appropriate for research into group formation and maintenance. The game's support of many types of teams also made it a good environment for the study of a variety of other group interactions. Furthermore, it has one of the most advanced avatar creation systems in an MMORPG to date, allowing players to imbue their avatars with unique identities.

Although a small number of free online multiplayer games are available, CoH is a commercial game. This game requires an initial purchase of the software and a monthly fee to play.

Within virtual play spaces, players have the ability to create anonymous personae that do not have to adhere to the social conventions of the offline world. Nevertheless, small groups, with their own rules and mores, are clearly created and maintained within virtual play spaces. Some of the rules are imposed from outside the game world, but the players themselves create many of the social definitions, mores and the like. Sometimes these conventions and mores seem to reflect the world outside the game, and other times to bear little resemblance to "real life."

This research is an attempt to study information behavior, and meaning-making, as represented *inside* the game world and not between the in-game world and the outside world. Naturally, the game draws upon the outside culture that surrounds it

to complete the depiction of an alternate world for the players. Further, the players draw on their own experience in the outside culture to operate in the new virtual play space. Therefore, it is never completely possible to divorce the inside world of the game from the outside world.

The second research goal was to discover if and how the concepts and theories of play arising from a variety of disciplines enter into the process of building and maintaining peer cultures within the game world. The last goal was to determine the importance of the concepts in play theory and information behavior in other in-game relationships.

The purpose of this research, then, was to examine whether the conflation of play theory and information behavior theory, predominantly meaning-making research, served to explain the development and maintenance of peer cultures within the virtual world of the game or games and, if so, how.

1.4 Significance of the Research

Research in this field is important for a number of reasons, including the size of the online gaming industry and the rate at which it is growing. Poole (2000) asserts that video games in general are more popular than TV, movies and movie rentals. A 2006 Entertainment Software Association report gave estimates that "video game software sales for consoles, PCs, mobile, and online hit $8.2 billion in 2004 and are forecasted to grow to $15 billion in 2010, the report estimated that the industry would support over 250,000 jobs by 2009 -- a 75% increase over the 144,000 full-time jobs

the industry supported in 2004" (Video Games : Serious Business for America's Economy, para. 3).

Online gaming is growing as well. An estimated 50 percent of all Americans, most of them adults, play video games. Of these, 43 percent of the most frequent game players play online games. Revenue from MMORPGS (which often require a monthly fee to play) is expected to grow from $300 million in 2002 to $1.8 billion by 2005 (Pham 2002). Statistics from 2005 show that MMORPGs exceeded the prediction to have $2 billion in revenue in that year, and the revenues are now predicted to reach $3 billion plus by 2011 (Thorsen, 2006).

In addition to the amount of money spent on online games, many people spend a great deal of time on them. Often the players of these games are adults who work outside the home, yet the average time spent per week playing one such game was reported to be 23.9 hours (Yee 2001). Online role-playing game (RPG) players often report being lost in a game for hours at a time. The players' descriptions of their experience in the games closely resemble the descriptions of "flow" in earlier studies (Csikzentmihalyi 1975). Flow is essentially a state in which the person performing an activity, whether it is painting, rock climbing, learning something new, reading or the like, knows that that he can do it. He possesses adequate skills, but the activity is still challenging, leaving the person neither anxious nor bored, but rather engrossed in the moment. Qualities that are related to the flow experience are complete involvement, a focus on the present moment, and a sense of being outside one's everyday reality.

Finally, it is important to study any leisure activity, because oftentimes it is the "expressive" activities, as opposed to the "instrumental" ones, which are important to

the meaning of and satisfaction with an individual's daily life, particularly his or her work life. Csikszentmihalyi (1981) points out that, although there seems to be an implicit assumption that the meaning of leisure grows out of work, in fact the opposite may very well be true. "Thus it could be argued that the most basic meaning of work and other instrumental activities is naturally determined by reference to meanings developed in leisure settings rather than vice-versa." (p. 333). Despite Csikszentmihalyi's assertion that the meaning of work may grow out of the meaning of play, studies of meaning-making and other information behaviors as an element of leisure pursuits are few.

With increasing numbers of games available and increasing numbers of people playing, it is important to know what happens in the context of the game, particularly since Turkle (1997), Yee (2002), Lee (2000) and Leslie (1993) have noted important ways in which people bring their in-game characters and associations back to their outside lives and vice-versa.

1.5 Scope of the Study

In CoH the world consists of Paragon City and environs where good is constantly battling evil. In this particular play space the avatars, the embodiments that players have chosen for their characters, are comic book-like superheroes.

CoH, like most virtual play spaces, is a complicated environment with many zones and characters (both players and non-player characters) to interact with. Another of the characteristics of many such games is that players are sent to perform quests or missions. In CoH these missions are most commonly assigned to individual players by non-player characters called contacts. Players can have more than one active mission at a

time, and, when a mission is completed for any given contact, the player returns to that contact to either be directed to another mission or sent to another contact. When players join in teams, the team leader selects which mission to take on, choosing from the missions assigned to any of the individual team members. There are also a variety of mission types, including regular missions, task force missions and player versus player (PvP) missions. The last of these refers to duels between individuals or teams rather than the more standard quests in which players are seeking to defeat non-player villains. Originally such contests took place in specific zones known as arenas, but, with the addition of City of Villains (CoV) to CoH in 2005, there are now some crossover zones where one might come face to face with another player's villain character. Since this change occurred at the very end of the data collection period for this study the crossover areas were not a part of this study.

CoH is run with client-server architecture, which means that basically only a part of the game, the client, is on the player's machine. The server part of the game is run on remote machines that a player must log into in order to play. The client and the server are designed to work together to create the full game. There are 11 North American servers available for CoH. Players can choose any of them to play on. While having a number of servers is intended to distribute the game load, other variations have arisen through game play, and sometimes players will try several servers before choosing one or two to concentrate their playing time on. Much of a player's choice may depend on trial and error in determining the server that suits her. All of the servers are running the same game world, and there are officially no differences. There are slight variations in tone brought about by the players themselves. Some servers, for instance are geared toward

more socially oriented players, others to players who are most interested in staying within their chosen role, and some have attracted more hard-core gamers. Most servers, however, are mixed in terms of types and motivations of players. The variations in tone are all unofficial and created by the players themselves. Each of the eleven North American servers has a name set by the game's makers. Each of the titles is reminiscent of some heroic notion, for instance: Victory, Protector, Freedom, Virtue, etc. The researcher selected the Justice server for this research. Justice, as will be discussed later is, in general, a more social server. Although the initial choice of this server was completely arbitrary owing to the fact that it fell at the top of the server list, the researcher continued there because the social nature seemed most suited to the research.

Numerous archetypes or classes of avatars are also offered, each with its own initial powers and with its own capacity to add only certain classes of powers. The researcher preferred to be able to follow more than lead, and to play in groups more than alone in order to spend more time observing group and play dynamics and meaning-making, She therefore chose an archetype with empathic and supportive powers. The researcher created her avatar using the controller archetype (see Appendix I) and played and observed using only this avatar.

1.6 Concepts

There are a number of concepts relevant to this research that are briefly described here. They include concepts surrounding the virtual play space, culture and peer culture, play rhetorics and role-playing games. Also included is a very brief overview of information behavior theory.

Each Massive Multiplayer Online Role-Playing Game is a computer game based on a persistent, graphical, virtual world that players can enter and leave at any time. In order to experience the virtual environment, the player creates a character (or sometimes characters) to play. The character is displayed on the screen as an avatar, a visual representation of the character that one is playing. In addition, other avatars represent characters currently present in the game world. Because of the confusion when discussing the virtual or game world versus the outside or "real world," the term "game world" or "in-game" will refer to the virtual play space or in-game environment, and the terms "outside world," "real space" or "real life" will refer to the non-virtual. In-game environments include five common elements: shared space, shared presence, shared sense of time, a way to communicate, and a way to share items in and of the environment (Manninen 2000b).

In the course of this research the terms "player" and "gamer" will be used interchangeably to mean those who participate in the virtual play space. Often within the game industry "gamers" is the preferred term.

1.6.1 Micro-cultures and peer cultures

Micro-cultures and peer cultures are segments of an overall culture. "Peer cultures" and "micro-cultures" are used interchangeably to refer to groups formed within games. Information behavior and meaning-making, as well as play theory (any of a variety of theories, arising from many disciplines, about what play is, why people engage in it and what the effects are) may have a role in both formation and maintenance of the peer cultures or micro-cultures. In this research culture consisted of three basic elements:

the things people do (cultural behavior), the things people know (cultural knowledge) and the things people make and use (cultural artifacts) (Spradley, 1980, Bodley, 1994). Since online games exist as bits and bytes through which people navigate their avatars (also composed of bit and bytes), it may be difficult to grasp the concept that virtual play spaces may be studied as cultures. The games, however, possess the same basic elements of any culture: cultural behavior, as expressed by the speech and movement of the avatars; cultural artifacts, virtual items that signal wealth and status; and cultural knowledge, presumably displayed in the communication which is one of the five common elements of MMORPG environments mentioned above. Speech may be the most important behavior in the MMORPG since facial expression, natural movement and so on are limited by the software.

Spradley (1980) and Bodley (1994) argue that culture is not biologically defined, but rather conceive of culture as learned or acquired. From the perspective of the symbolic interactionists like Cooley (1902) and Mead (1934) society and culture shape and constrain conduct, but they are also the products of conduct, including meaning-making and play. It was these theories that were most likely to allow some elucidation of how individuals generate cultural groups, because the theoretical foundations of symbolic interactionism lie in the concept that individuals and cultures are "in a state of mutual simultaneous shaping" (Lincoln and Guba, 1985, p. 37). That is, culture has an effect on the identity of an individual, just as individuals have an effect on the making of a culture. Both culture and the individual are then constructed by the interaction among individuals and between the culture and individuals. By the nature of being virtual, play spaces could not have biologically defined cultures. People from a variety of cultures play

MMORPGs together, but the games seem to develop cultures all their own. From the newly created culture evolve the sort of micro-cultures and the peer groups sometimes discussed by play theorists.

1.6.2 Virtual play spaces and the virtual sandbox

While MMORPGs have previously been defined as a particular type of computer game some people in the games industry regard them as not quite "games" at all, defining a game as having a definite beginning and a definite end state or end states (that is, at least one win condition). MMORPGs are likened (rather dismissively) by at least one of the game makers interviewed in prior research (Adams, 2002) as "not games, but virtual sandboxes." In some ways this is an apt description of a virtual play space in which people can try on different roles and imaginary quests can be undertaken—a place to engage in imaginary play, somewhat as young children do, rather than a "game" to play.

It is commonly understood that children engage in play in which the scripts are continuously improvised, moving between dramatic passages and negotiation of the scenarios being played out, and that adults participate in rational, rule-governed and goal directed actions (Cowan, 2000). But many adults engage in dramatic forms of play in such organizations as Civil War reenactment groups, the Society for Creative Anachronism, Rendezvous (in which people come together in an enactment of the meetings of the early frontier fur traders), and the Baker Street Irregulars (in which groups of Sherlock Holmes fans meet and share Holmes trivia and speculation). Even Star Trek conventions bring people together to create a pretend presence outside their

normal day-to-day lives. MMORPGs do the same, and therefore also echo "children's" play.

1.6.3 Virtual play spaces

One of the essential elements of play described by Roger Callois (1961) is that it is "circumscribed within limits of space and time, defined and fixed in advance." There are two ways, in the instance of online games, that one could conceptualize the limits of time and space for virtual play spaces. One of them is the physical space one must occupy in order to play, for example, sitting at a desk using a computer. Far more important and to the point in this research, however, is the concept of a "virtual play space." The makers of CoH describe their game thus:

> Soar high above a towering metropolis in *City of Heroes*®, the massively multiplayer online game where you and thousands of other players take on the roles of super-powered heroes, fighting to save Paragon City from a rising tide of crime…From street muggings of innocent bystanders in alleyways to malevolent felons plotting in their hidden lairs, Paragon City is riddled with wrongdoers. Take to the streets and clean up crime, confront the madmen, bring down the gangs and continue your own ongoing quest for justice on the streets of Paragon City (PlayNC, 2006, para. 1 and 2).

The game makers are clearly describing a place or space where the play is to happen. Thus virtual play spaces are those that exist only in a virtual environment.

1.6.4 Rhetorics of play

Brian Sutton-Smith (1997) identifies seven rhetorics of play, that is, seven groupings of the ways in which researchers have viewed play over the years, generally based on the academic disciplines from which each grouping comes. Four of the rhetorics or disciplinary backgrounds of play theory are of particular interest in this research. These theories grow out of four disciplines: psychiatry, anthropology/folklore, art/literature and sociology. They are referred to as the rhetorics of self, identity, the imaginary and power respectively. The scope of these theories suggests that there are matters of identity and community extant within the study of play that are vital to this research. The rhetorics that concern self and identity, especially, relate to the questions of peer culture formation being explored here. It is important to note that the rhetorics, although roughly grouped by discipline, are not distinct and mutually exclusive, but rather overlap and interact with one another.

1.6.5 Peer culture theory in the world of play

According to Frost, Wortham, and Reifel (2005), "There are many notions of peer culture but most seem to assume [that] children, as they interact, create communities of participants who share common values, interests and rituals." (p. 54). Although many theorists believe that play is a vehicle for children's development,

under this set of theories play becomes an activity that is important in its own right and not part of some individual developmental scheme.

Singer and Singer (1990) suggest that children's make-believe games continue into adulthood in the form of such activities as Renaissance Fairs and that such imaginative activities enrich adult life. The participants of such groups share an identity that consists of values, interests and rituals, just as the participants in children's games do.

In this study, the researcher's interest was exploring the ways in which peer cultures are formed and maintained in virtual play spaces. These concepts provide a basis for viewing peer culture formation in this alternate environment.

1.6.6 Role-playing games

"Role-playing games (RPGs) themselves seem to be unheard of outside of certain circles. It is hard for role-players to explain what RPGs are to non-gamers; and it is even harder for non-gamers to understand what the appeal of RPGs is. RPGs are not just games; they are an experience " (Yee, 1999, p. 1). Role-playing games on the computer seem to have grown from the roots of Dungeons and Dragons and similar games (still enjoyed by many) in the 1970s to something far more technologically sophisticated. Types of role-playing games include everything from the pencil and paper types involving many-sided dice and innumerable calculations, such as Dungeons and Dragons, to live action improvisational role-playing clubs to such fantasy groups as the Society for Creative Anachronism and military re-enactment groups, to MUDs and online RPGs.

Virtual play spaces or MMORPGs are a special case of role-playing games. In this case the environment is provided online, and unlike some computer RPGs one can play with many other people at one time.

1.6.7 Information Behavior Theory

Just as play theory grows from the roots of many disciplines, information behavior theory encompasses a wide variety of theories. This research utilized what are generally referred to as sense-making and meaning-making theories. This collection of related theories include among them Everyday Life Information Seeking Theory (ELIS) (Savolainen, 1995), sense-making, (Dervin, 1983), folk psychology (Bruner, 1990) and the dramaturgical perspective (Hare and Blumberg, 1988).

Each of the above-mentioned meaning-making theories arises from a different disciplinary background and views meaning-making from a different perspective. Sense-making began with communications scholar Brenda Dervin (1983) and has been adapted by many other researchers in a variety of disciplines (See the Sense-making Web site, 2005). It has been used in numerous ways to examine how both individuals and groups of individuals make sense of their world. ELIS is a product of information science and has as its primary concern how groups of people seek information to maintain coherence within their communities (e.g. a work community, a particular status, or any other group) and therefore attain mastery of life. The focus of ELIS is on the group, although oftentimes the models in ELIS are derived from the sort of individualistic study that is characteristic of sense-making. Bruner's (1990) notion of folk psychology is inseparably connected with the concept of meaning-

making within and through culture. Finally, Hare and Blumberg (1988) credit sociologists and social psychologists with taking a dramaturgical approach to meaning making using the interacting group as the unit for study.

In this research McKenzie's (2002) model of information practices, a version of everyday life information seeking was used to examine some general information seeking behaviors of players, and apparent information seeking behaviors of avatars. Because of the social nature of the research, the making of meaning in an interacting group seemed appropriate, and therefore, the meaning-making portion of the analysis relies heavily on the dramaturgical approach.

1.7 Limitations of the Current Study's Scope

This study is an examination of information behavior and the formation and maintenance of peer cultures in one online game or virtual play space, CoH. There are multiple virtual play spaces available for study, and any one of these offers a great number of choices or challenges in choosing what to concentrate on in studying it. It is necessary to narrow the scope of the study considerably in hopes of getting a deep and detailed enough picture to be useful to others, whether researchers, readers or players. While this narrowing is necessary, it is also dangerous in that the researcher may become so myopically focused that other important evidence is ignored or dismissed out of hand.

1.7.1 Limitation of scope by server

The game purchased is a client program, that is, only the client part of the client-server architecture mentioned earlier. In order to play, the gamer must create a character and log on to one of several servers. In the case of CoH there are 11 North American servers and 4 European servers. Of the European servers, two are primarily English speaking, one is French and the last is German. While there is some possible crossover between North American and European servers, the creators of the game have kept them largely separate. There are a number of European players who began their play on North American servers before the European ones became available, and many of them still play on those servers.

All of the servers consist of the same persistent environment, but are populated by various different avatars at any given time. Over time the cultures of the servers have changed slightly. The game's makers do not dictate the alteration in the culture or tone of each server. These changes are emergent based on the player population that chooses each. For example one server may become the chosen server for those who are serious about role-play, another may be a more social server, as evidenced by the number of social activities that take place, such as dance parties, beauty pageants and so on. So while the intent is for gamers to play in the same, but parallel, virtual play space no matter which server they choose, there are subtle differences. In considering the intended depth of the research and the time required to accomplish that, only one server, the Justice Server was chosen for in-depth study. As I noted earlier, the Justice server was initially chosen arbitrarily, but was later determined to be appropriate to the study of group formation due to its social nature.

1.7.2 Limitation of observational standpoint

Before entering the play space of CoH, a player must select an archetype or role (e.g. controller, scrapper), with a particular type of origin (science, technology, magic and so on). Descriptions of the particular types of archetype and origins are available in Appendix I and Appendix II. The researcher selected as her main avatar a controller with a science origin. Once this character was established it was the only one that she played beyond the very low levels of the game. The reason for final selection of this character type was the ability to stand back and observe the action of others on a team, but still participate. There are a variety of powers available for selection for an avatar of this archetype and origin, among them powers of control over the elements such as earth, fire, gravity and ice, as well as mind control. The researcher chose mind control and empathetic powers, such as healing, teleportation and resurrecting since they seemed to allow the best opportunity to participate at a distance from others. All of the choices that the researcher made in creating and playing this avatar, as well as her play style, affected the observations made in the game.

1.7.3 Limitation of scope by type of play

CoH allows for two types of play, defined as player versus player (PvP), which was confined to areas called arenas,[2] and playing versus the non-player characters (NPCs) provided by the game. The quests against the non-player villains seem to be

[2] The games now has an add-on called City of Villains which allows players to create villainous characters and fight heroes in PvP zones. The add-on came out just as the study was ending.

the default, but there are arenas in the game where individuals or teams of individuals go to pit themselves against one another. There are many players who choose only to play in PvP mode. For the purpose of this research, however the researcher studied only the quests involving non-player characters (NPC) as villains.

1.7.4 Limitation of scope by mission type

CoH also has a number of mission types, primarily divided into standard quests and Task Forces (TF). Task Forces are longer and more difficult missions that might require many hours to play. While CoH is designed to make such missions available to even the most casual gamer by allowing for playing it a little at a time on a TF team, and then agreeing to meet at another time to continue, it seems as if it is sometimes difficult to find people who are able to TF because of the commitment of time. This research is limited to standard quests, because Task Forces that would or could stay together were more difficult to find.

1.8 Other Limitations

1.8.1 Studying avatars

One of the most difficult dilemmas for the researcher is the anonymity of the game environment. Avatars, the digital representations people have chosen and to some extent designed for themselves, conceal the identities of the players who chose or created them. It is difficult to say that one is not dealing with "real" people, because avatars serve as the vehicles by which players express their chosen identities within the game. The avatars can, in fact, be seen as another dramatic representation of

identity that is played out within a specific environment (See Goffman, 1959). It is nearly impossible, however, to examine the creation and maintenance of peer cultures in the game except by observation of avatars.

The ability to choose and create avatars as a means to construct personal identity in the game world is one way that role-playing games differ from other games. In essence, any kind of game can be construed as a role-playing game (RPG). A player may take the role of a fighter in a fighting game, the coach or player in sports and so on. However, the RPG character is not a pre-ordained role (that is, there are expectations of the role of the second baseman or fighter). Naturally there are restrictions in character creation. In City of Heroes before City of Villains was added all of the characters were required to be of a heroic type. However the choices in character creation and role-playing are an integral part of the game-play experience (Poole, 2000). Therefore, it was the information behavior, meaning-making and play displayed by the avatar or chosen character that the researcher wished to study.

It is obvious that behind every avatar is a human, and that the human factor complicates matters. The avatar and the human are inextricably linked, and it is possible that humans are exploring meanings by way of an assumed identity embodied by the avatar. It seems apparent that the meaning-making displayed by the avatar may offer some implications about the meaning-making of the human. However, the researcher attempted to explore meaning-making within the game world rather than directly to the human in the outside world.

1.8.2 Limitations of method

Because this research is qualitative it is open to criticism as impressionistic and "not objective." Often there is also allegation that the researcher's "biases" invalidate the research (Lincoln and Guba, 1985; Denzin and Lincoln, 2000).

These perceived limitations are addressed further in Chapter Three, but qualitative researchers generally understand all research as value-laden. Researchers must be circumspect about their backgrounds and "biases," but recognize that these qualities can be strengths.

1.9 Structure of this Dissertation

There are seven chapters in the dissertation; in Chapter One the researcher has provided a broad introduction to the subject. Chapter Two provides a review of the literature on play, particularly as it relates to video games. The structure of Chapter Two is based on Brain Sutton-Smith's (1997) work on the rhetorics of play. Also included in Chapter Two is an overview of the literature on information behavior and meaning-making from the social and cognitive viewpoints with a particular emphasis on those concepts that are of particular importance to this research.

Chapter Three is a brief review of the qualitative research paradigm. It also includes broad concepts of the methods employed in order to perform this particular research, as well as the specific methods of data collection and analysis.

Chapters Four contains a descriptive analysis of the virtual play space and relates it to McKenzie's (2002) two dimensional model of information practices in

context. Chapter Five examines the research in further depth by the use of dramaturgical analysis.

Chapter Six contains further explanation of how the research answers the research questions. And finally, Chapter Seven includes a brief retrospective of the project, a summary of the work, some reflections on methodology and suggestions for future research.

Chapter Two- A Multidisciplinary View of Play Theory and Information Behavior Literature

Although video games have been in existence for over 40 years, it is only recently that we have begun considering them as a legitimate object of research (Poole, 2000). This research includes viewing the educational, psychological, social, physiological, narrative and dramaturgical aspects. Further work has been done on the aesthetics and design of games, including such aspects as interface. Little work has been done on the information behavior and meaning-making aspects of video games and video game playing.

Perhaps because of the relatively recent acceptance of game study as an important research venue, much of what is available consists of opinion and concept papers and articles. It is necessary and important to look at this kind of work, as well as considering the more rigorous research being done in Europe (Aarseth, 1997; Game Research, 2003; Manninen 2000a; Manninen, 2000b: Eskelinen, 2001 etc.) All of these elements put together will help to illustrate the important range of attitudes about video games both in academe and among the general public.

Conclusions can be drawn from the work on both child and adult play and gaming. Brougère (1999) suggests that, "Reflections on children's play has produced a number of results that could enrich the analysis of simulation/gaming situations. In fact, the adult/child opposition is undoubtedly a false opposition that conceals deeply rooted continuities." (p. 143). With this in mind, research on video games and play from both the child and adult perspectives is included in this review of the literature.

There are also a number of other literatures that offer some insight into the study of video games and computer games. These literatures include, but are not limited to, computer-networked forms other than games (Etzioni & Etzioni, 1999; Manninen, 2000b), social psychology (Lee, 2000; McDonald & Kim, 2001), popular culture (Berger, 2002); addiction (Yee, 2002; Greenberg, Lewis & Dodd, 1999); hypertext (Aarseth, 1997; Douglas & Hargadon, 2000) and peer culture (Frost, Wortham & Reifel, 2005; Singer & Singer, 1990). While these literatures may be touched upon in the course of the literature review, they are not the main focus.

Brian Sutton-Smith (1997) suggests what he calls the rhetorics of play. That is, seven ways in which researchers have viewed play over the years. Each rhetoric is based on the research about play in a particular discipline. The rhetorics are not entirely mutually exclusive, but rather overlap with one another. Some of these aspects of play are important to the consideration of video games as a research interest. All of Sutton-Smith's (1997) rhetorics are included except the rhetoric of fate, or what Callois (1961) calls alea. This particular rhetoric was excluded because it does not appear to have as much direct association with video games (with the possible exception of online gambling) as the others.

2.1 The Rhetorics of Progress

Often people, particularly educators, think of play as a means to an end. Elementary school rooms for example are often equipped with manipulable objects to aid in the developmental progress and thinking skills of the children in essentially fun ways.

Computer games offer interesting parallels. For instance Adams (2002) in a pilot study about thinking and information behaviors in adult video game players found that the gamers interviewed did talk about their gaming in terms of cognitive processes. Intriguingly, the game of choice for those interviewed was Civilization III (Firaxis Games, 2001). The game promotes cognitive processes, but Nicastro (1999) believes that such games may promote mistaken ideas about history. He particularly points out the tendency to promote Western ideals and outmoded anthropological notions.

Gee (2003) posited, after attempting his young son's video games and then trying some games more suited to older audiences that the type of learning that can take place in video games can be both frustrating and life enhancing. He concludes that, although game designers probably do not read academic texts on cognitive science, the learning that takes place in video games is in line with cognitive theories. He believes, in fact, that video game learning is more in line with these theories than the teaching and learning being offered in the schools currently. Some of Gee's ideas echo work done 2 decades earlier by Patricia Greenfield (1984).

There is currently a great deal of controversy over whether video games are good for children, bad for children or somewhere in between. There have been similar studies of television as a medium with negative effects (Singer & Singer, 1990; Postman. 1986).

Much has been made of the ability of simulations and games to teach children (Gee, 2003) and adults (Filipczak, 1997) in ways that traditional computer-based training could not. Many attempts are now being made to merge the compelling nature of gaming with instruction for a number of industries, from military to banking to anthropology. By adding gradually to the difficulty or complexity of a skill or idea to be learned, a simulation can afford learners a chance to gradually increase their abilities. Even such bloody games as Unreal Tournament (Epic Games, 1999) have underlying elements that have been adapted to other purposes (Flipczak, 1997).

Among other sources, hospital studies show game players make better surgeons (Dobnick, 2004), articles highlight the military's conviction that game players make better war fighters (Silberman 2004), and in their book, Got Game: How the Gamer Generation is Reshaping Business Forever, Beck and Wade (2004) conclude that game players make better business people. Prensky (2004) claims that people can learn Covey's (1989) Habits of Highly Successful People by playing video games.

The elements of gaming are being studied seriously in many circles for their pedagogical import. One such academic group is the Learning Games Initiative (LGI) that describes its mission this way, "LGI's research and teaching is designed to fashion bridges among departments, academic and community organizations, and educational institutions around the world." (What is LGI?, para. 3).

While the rhetoric of progress in not foremost of those rhetorics of interest in this research, much of the literature suggests that some kind of learning is accomplished through playing games. This would seem to indicate that players are finding or creating some sort of meaning for themselves as they play.

2. 2 The rhetorics of power

Traditionally, the power rhetorics have grown out of politics and war, and expressed themselves in athletic contests and feats of prowess. Their other main form has been in the area of intellectual strategy, which shares the element of contest (Sutton-Smith 1997, p. 74).

Perhaps one of the most interesting examples of the power rhetorics being exhibited in video game form are those games that are sometimes referred to as strategy games, particularly those involved in civilization building. In such games the player is allowed to be the force behind history, waging war and seeking political alliances. This type of play brings the idea of power directly into play, as the player becomes the "cyber Caesar" (Nicastro, 1999).

A recent game Republic: The Revolution (Hassabis, 2003) is unabashedly political. Because of the meticulous representation of power politics in this game in which the developers made use of a number of sociological sources to develop the Artificial Intelligence (AI), there is now discussion within academic circles about using similar types of AI for research purposes (Hermida, 2003).

Naturally, there are other games in which the object is to demonstrate power over your enemy whether he/she is computer-generated or a real person on the end other end of an Internet connection. These include such first person shooter games as Doom II (id Software, 2001), Quake II (id Software, 1997), Duke Nukem (3D Realms, 1996) and Unreal Tournament (Epic Games, 1999). Even the virtual play space discussed in this research, CoH, has as one element the possession of specific powers to defeat the enemy.

An added element in CoH (and other such play spaces) is the ability to also possess powers to be used in support of ones allies.

2.3 The Rhetorics of Identity

These rhetorics are concerned with community identity built through play. Generally speaking they relate to festivals and so forth, but they can relate to community building in general. Traditionally, the building of community took place in the agora or marketplace, now, say Internet scholars, it must take place on the net. Many of the same aspects of community building through play are apparent both in the real and virtual worlds.

The initial questions of formation and maintenance of peer cultures in CoH rely heavily on the rhetoric of identity and community building. It seems as if not only are in-game communities and groups formed, but also groups of interested players form communities outside the game in forums, group Web pages and groups of people off-line who are interested in virtual play spaces.

2.3.1 Community Building

To understand community building through play it is important to look first at the concept of peer culture theory. According to Frost, Wortham & Reifel (2005), under this set of theories play becomes an activity that is important in its own right and not part of some individual developmental scheme.

Just as children create their own peer cultures through play, so, the Singers (1990) believe, do adults. Citing such organizations as the Baker Street Irregulars and the

Society for Creative Anachronism, as well as organizations like the Knights of Columbus and the Freemasons, they suggest that play involving common interests and rituals builds a comfortable peer culture for some adults.

The theories of peer culture for both children and adults bring with them the disturbing suggestion that play as a context for the creation of peer culture has both positive and negative aspects (Frost, Wortham & Reifel 2001; Singer & Singer 1990).

On the positive side aspects like social cohesion and role exploration, (Frost, Wortham & Reifel 2001) and harmless or benevolent groups (Singer & Singer 1990) are apparent. With the advent of open-source game engines and java, more attempts are being made to build stronger cultural understandings of particular groups, and between groups. In one example, students in a California High School investigated their cultural background (in this case a largely Hispanic background) to build a game called *Tropical America* (Jenkins & Squire, 2003).

On the negative side, such aspects as prejudice and bullying can be found (Frost, Wortham & Reifel 2001). One extreme example of the negative implications in adulthood pointed to by Singer & Singer (1990) is the formation of such groups as the Ku Klux Klan. Video games have their own equivalent not only in violent commercial games, but also in games that are created by hate groups. With the prevalence of the ability of people to make their own games through the use of freely available game engines, comes the ability of such peer groups to produce products such as the National Alliance's (a white supremacist group) *Ethnic Cleansing* (Jenkins & Squire, 2003).

2.3.2 The Online Experience

Peer theory is relevant to video games, particularly online video games in a number of ways. Many online players form elaborate groups or clans (Yee 2001). The study of this part of the social world of the RPG alone could be enhanced by the theories of peer culture. Related to the identity rhetorics, oftentimes guilds or clans will show affiliation by using the same color schemes in their character's dress (Mannimen, 2000). This is similar to team identity in sports, or national identity in festivals and the like.

Just as bullying can be a part of peer culture in the real world, bullying or "griefing" (Pham 2002) in the online world suggest the negative aspects of the social world of the online RPG experienced by gamers also requires study. Even such innocuous games as the Sims Online (Maxis, 2002), which is intended for family audiences and includes no shooting or other violence, has engendered such bullying groups as "The Sims Mafia" (Wadham, 2003).

2.3.3 Gaming and Gender

Another aspect of peer culture which bridges the gap between real-world and online communities is the fact that communities of boys particularly, tend to form around discussions of particular games (Facer, Sutherland, Furlong & Furlong, 2001). In studies of children in the United Kingdom they found that the offline exchange of information about current games is a currency by which friendship is constructed between boys and prioritizes these activities as a masculine pursuit.

Some researchers are asking questions about the gender issues in gaming. One notable example is a book edited by Cassell and Jenkins (1998) called, From Barbie to

Mortal Combat: Gender and Computer Games, in which a number of authors and researchers explore the subject. Of particular interest at that time were the few game companies starting up specifically to make games that were based on sociological and ethnographic research about girls. In a follow up to this book Jenkins (2001) described the reasons why many such companies did not survive as stand-alone entities. He observes that industry sources are claiming many more women playing computer games, but that they tend to play more traditional games, such as cards, etc. rather than crossing the "gender barrier." Despite progress the commercial and cultural space of computer games still tends to be predominantly male (Jenkins, 2001).

2.4. The Rhetorics of the Imaginary

Sutton-Smith (1997) in his chapter on the rhetorics of the imaginary refers to this rhetoric as a gathering place for all who believe that some kind of transformation is a fundamental part of play. Janet Murray (1997) cites transformation along with agency and immersion as important aspects of the computer game. Certainly the shared fantasy element of role-playing games referred to by Fine (1983) speaks to the creative and transformative nature of play.

The rhetoric of the imaginary is also identified with such labels as creativity, art, imagination, and even literary word play. All of these labels apply at differing levels to video games. One might even include the research on the aesthetic qualities of video games in this set of rhetorics. Certainly the dramatic nature of the virtual play space falls into this category as well.

2.4.1 Creativity.

One of the major aspects of creativity in online RPGs is in Avatar creation and control. The avatar is the visual representation of the player's character, and while there is some limitation as to character classes and appearances, there is also considerable creative freedom. One respondent to Yee's (1999) survey stated" I think of my characters as a creative outlet for me." (p. 16).

Manninen (2000) applied Communicative Action Theory to the computer-mediated interaction in multiplayer games. He observed, among other things a dramaturgical approach to avatar creation, "Avatar appearance can be used to reflect players' style and attitude…and even the names of the avatars can indicate a powerful dramaturgical act." (p. 156).

In a more particular case of the dramaturgical approach to self-representation, Leslie (1993) reports the case of a young man who had played on the Multi-User Domains (MUDs), which are the text version of online RPGs, enough that he was bored. The young man decided as a "performance art piece" to see if he could convincingly take on the persona of a woman. While quite successful at the ruse, he eventually had to give up the persona due to the sexual harassment he found was rampant in the MUDs. Many people in online games experiment with gender switching, whether for trying on a different role, or other reasons (Yee, 1999, 2001, 2002; Adams, 2002).

2.4.2 Literary notions of play

Sutton-Smith (1997) says that, "there is a point at which play and literature are the same thing." (p. 136) and points out that during the process of creating a written work,

the mind cannot help but be imaginative (p. 137). Huizinga (1955) equates literary play, particularly poetry, with bridging the gap between the savage and the civilized. Beavis (1998) advocates the study of games themselves as narrative in elementary school. In so doing she suggests that she might be "inciting moral panic" among educators, parents and others who feel that there is no place for the study of games in schools. Story, narrative, creative writing and word play all have their parts to play in video games, particularly those that are interactive.

Hayes-Roth (1999) considers three types of interactive story genres: Activity-enhanced; Hyper-story; and Immersive story experience. The third of these was her major focus. Using a technique called directed improvisation, users, both children and adults were encouraged to get into the story. Hayes-Roth concluded from her studies that adults had a more difficult time immersing themselves in an interactive story; however, she felt that the programs developed for this study might serve as story-telling environments that "offer to both children and adults, the special delight of creative play" (p. 256).

Another example of creative literary work in games is The Sims photo album feature written about by Frasca (2001). The Sims (Maxis, 2000) is an open-ended simulation with no win point, which allows one to build a house and family and take care of them, much like a grown-up electronic dollhouse. One of the game's features is a photo album into which one can put screen shots from his or her Sims family and add captions. Much to the surprise of the game's developers, people were using this feature to write stories, either realistic or fantastical, and uploading them to the Web.

In the world of the Multi-User Dungeon (MUD), which is a precursor to today's online role-playing games everything is created in words, not only player interactions, but new spaces as well. MUDs still exist alongside their graphical counterparts. Aarseth (1997) points out that "MUDs are a textual phenomena, based entirely on writing in an aesthetic, typically pleasure-driven mode." (p. 146). In discussing the question of the literariness of the MUD environment, Aarseth concludes with a statement "MUDs are not the poor relatives of more artistic textual media but contain a potential for textual complexity and diversity that is far from mastered, or even conjectured at the present time. Although the notion of improvisation entails a dangerously unfocused and romantic image of the aesthetic process…it might make us more sensitive to the aesthetics of the MUD exchange, and, I hope, make us see this phenomenon as a meaningful, intelligible mode of literary communication." (p 161)

Aarseth (1997) also talks about adventure games and the attempts to use the techniques of literary criticism to analyze them. "Two of the most common approaches to video games seem to be apologetics and trivialization. Both generally fail to grasp the intrinsic qualities of the genre because they both privilege the aesthetic ideal of another genre, that of narrative literature, typically the novel." (p.106). The apologists tend to see video adventure games as something that will eventually yield literary masterpieces which will take their place in the canon.

Aarseth sees both the apologists and the trivialists as wrong in that "The adventure game is an artistic genre of its own, a unique aesthetic field of possibilities, which must be judged on its own terms." (p.107) There are others who agree that online RPGs and other games should be studied on their own terms rather than as traditional

narrative (Eskelinen, 2001; Frasca, 1999). Frasca (1999) proposed the term "ludology" to "refer to the yet non-existent 'discipline that studies game and play activities'." Frasca began a Web site called ludology.org and has maintained the site since 2001. Among other things, it is a place for theorists to discuss ludology.

2.4.3 Happiness

Price (1985) in examining all types of videogames, from arcades to home systems notes, "Whatever the reasons, video games are machines that are so well adapted to human nature that humans will pay to interact with them for long periods of time." (p.119). In the anecdotal responses in all three of Yee's (1999, 2001, 2002) works players report their enjoyment of online RPGs, and also their deep level of involvement with them.

Csikszentmihalyi (1975) points out the seemingly obvious, which is the "simple fact that play is enjoyable in itself." (p. 42). He interviewed a variety of rock climbers, chess players, basketball players and composers to discover if there are common pleasurable experiences reported across a variety of play experiences, if it is possible to identify common elements in the production of these experiences, and finally whether such experiences are limited to play alone. An interesting parallel occurs between Csikszentmihalyi's respondents' reports of the intensity of involvement in a game to the point that they cannot say 'it's just a game' and Yee's (2002) respondents who sometimes report their involvement in online RPGs as just a game, and other times cannot.

Poole (2000) adopts parts of Csikszentmihalyi's concept of flow in regard to the playing of video games, although he takes a critical view of the model behind flow,

which posits a zone between anxiety and boredom in which flow exists. Douglas and Hargadon (2000) in studying hypertext situations, including games, expand the concept to what they call 'the pleasure principle' which includes flow, as well as engagement and immersion. Immersion, in an interesting parallel to the flow state, is described as:

> *Immersion*, is a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus (Murray, 1997, p. 98).

2.5 The Rhetorics of Self

In explicating the rhetorics of self, Sutton-Smith (1997) emphasizes the study of the individual's experience in play. Many of the psychological theories of play fall into this category, which tends to see play more as an attitude than as observable behavior.

In terms of adults playing of games in general Csikszentmihalyi (2001) points out that although there seems to be an implicit assumption that the meaning of leisure grows out of work, in fact the opposite may very well be true. "Thus it could be argued that the most basic meaning of work and other instrumental activities is naturally determined by reference to meanings developed in leisure settings rather than vice-versa." (p. 333) Csikszentmihalyi's work in this regard is reminiscent of the ancient concept that people are most free and whole when they are at play.

An important part of the analysis of CoH is the way in which role and self interact and how that is affected by social interaction in the game. It is also important to note that the anonymous nature of virtual play spaces allows people to play quite freely with the concept of self or selves.

2.5.1 Developing the Self

The social psychologist George Herbert Meade in his studies of the development of the self, regarded mind and self as emerging from the interaction of the human organism and its social environment (Mead, 1934). Technology is clearly a part of the modern social environment. In terms of online RPGs, in particular, the technology involved is interactive. We interact with people through the medium of computers. They cannot help but have some impact in shaping the self.

Adams (2002) in her preliminary study of player of Online Role-Playing games records one player's feelings about the issue of character creation in the online world of the game "the online world allows him to hone how he wishes he were in the real world, or experiment with who he wants to be." (p. 16), thereby using leisure activities to relate back into the real world. Turnea (2004) contends that, "The whole idea is to give yourself a new identity in a world where you have powers and inclinations alien to your experience in the real world."

Lee's (2000) work on self-efficacy in the MUD environment brings many of the same issues of bringing skill learned in leisure into the real world. Lee's work on the MUD and self-efficacy is founded in the theoretical framework of the social psychologist Albert Bandura. Bandura (1986, as quoted in Lee, 2000) defines self-efficacy as

"People's judgments of their capabilities to organize and execute a course of action required to attain designated types of performance." (p. 179). In other words, it is what people think of their ability to effect a certain situation by their own action. While Bandura's work concentrated primarily on measures of self-efficacy in specific situations (i.e. with phobics), other researchers have expanded on the concept. Sherer et al (1982, as cited in Lee, 2000) went beyond the specific domain to suggest that success across a number of domains can positively affect self-efficacy in unexpected situations.

According to Bandura (1977,1997, as cited in Lee, 2000) there are four major sources of efficacy expectations: performance accomplishments; vicarious experience; verbal persuasion and emotional arousal. The reason that the theory of self-efficacy is important to the question of what gamers think they are getting from their play in the social world of the RPG is that by interacting in the online world they are exposed to precisely the sources of self-efficacy that theorists discuss in ways they might not otherwise be exposed.

Other research also shows people taking important meanings and skills learned in the leisure space of online video gaming into the real world. For instance, an online gamer can try on a leadership role, as one woman did in accepting the leadership of her in-game clan (Yee, 2001) only to find herself more confident and successful in leadership both inside and outside the game. Another woman, an engineer named Marcia, cited her experience as a "wizard" or administrator in one of the MUDs as the reason for her promotion (Leslie, 1993). These experiences make clear that people can try on new roles and skills such as making decisions that are usually available only to specialists (Price, 1985).

Sherry Turkle (1994) has written an entire book about the creation/discovery of self in the world of MUDs and chatrooms called "Life on the Screen: Identity in the Age of the Internet." She talks specifically how the social interaction on the Web helps shape personal identity. Her work examines the flexibility, fluidity and multiplicity of identities that people assume with relative ease in virtual environments. In a later work, Turkle (1997) talks about computational objects, such as games, accessed through Internet connections as "evocative; interacting with them provokes reflection on the nature of the self." (p. 1093).

Richard Smith and Pamela Curtin (1998) examine the impact of computer games on young children and the implications for the classroom. They make the point that "We suspect that for these children, winning and beating the machine and the game are crucial elements of self-construction—elements in which human characteristics merge with the technological." (p.221). They point out that the interaction with the games is both emotionally charged (p.220) and "always a social act" (p. 224), both of which help to shape how the young people think of themselves.

Building on the idea of the computer game as a social act and using the perspective of the "social self," McDonald and Kim (2001) distributed questionnaires related to game playing to elementary and high school students. The students were also interviewed regarding game play, their favorite characters, how they described themselves, and how they would describe their ideal self. After testing their hypotheses regarding the identification of self with the game characters, the researchers found that although the overt identification fades as children mature, they continue to use similar dimensions in describing themselves and their favorite characters.

2.5.2 Social relationships online

Murray (1997) offers an insight into the social nature of online games when she refers to MUDs (Multi-User Domains) as gaming environments that allow distant players to interact via sustained collaborative storytelling that is "not meant to be watched or listened to but shared by the players as an alternative reality they all live in together." (p.44).

A number of research studies have been done on the creation of identity and character in cyberspace, particularly in the Object Oriented MUDs (MOOs) and MUDs (Turkle 1984, 1997; Brody, 1995). Yee (2002) has done some work looking at the digital identities that players create for themselves.

Turkle's (1997) work is devoted to identity in the Internet era, and she makes a case for a fluidity of identity emerging among devotees of cyberspace (among them MOO and MUD participants, and online gamers). In the online world one can have and live out many identities. In the guise of these identities, people 'live' all sorts of interactions from romance to deliberate mischief and aggravation (Pham, 2002). Turkle observes, "Since the excitement of the game depends on having personal relationships and being part of a MUD community's developing politics and projects, it is hard to participate just a little" (p. 184).

Yee's (2002) essay, "Mosaic," looked at some of the issues of friendship in online RPG environments. He found that around 40% of the people surveyed over the top five massive multiplayer RPGs had online friends they considered comparable to or better

than their real life friends (p.4). This is naturally confusing to people who do not have similar experience, since it does not seem logical that anything real or lasting can come out of a "make-believe" world. One 39-year-old female player is quoted in Yee's "Mosaic" (2002) as saying:

> I've been playing for over two and a half years. Like most people, I have found that you can make real friends in this game once you realize there's someone behind the toon. You look forward to seeing them every time you play; when they are gone you feel the loss. The day our guild leader retired from EQ [EverQuest], we held a ceremony in her honor. As the MC of the ceremony, I was startled to realize I was crying real tears when we said goodbye.

MUDs, MOOs, Online RPGs and other virtual spaces also allow people who are handicapped or otherwise fear rejection to have a haven where they can present themselves in whatever way they wish. In such spaces all can participate in virtual food fights, quests, business interactions and love affairs, all without ever meeting in person (Leslie, 1993).

In fact, Yee, probably the most prolific author on MMORPGs to date, has concentrated almost solely on psychological and social factors. He has conducted five in-depth studies that employ primarily survey techniques. He has examined who plays MMORPGs, how personal relationships are built, and motivational factors for play among other things. Yee's studies are perhaps the best available to date; but they do have

one significant flaw. He recruits his participants from Web sites devoted to online games, giving him a sample made up of the most dedicated players of these games, as opposed to casual gamers. Casual gamers are less likely to visit these sites. He bases conclusions about players of the games in general on the data gathered from this group of participants. He does, in an updated footnote to his 2000 work, attempt to counter this criticism by pointing out that demographic statistics, such as age, gender and so on, of those who actually are participating in the game worlds resemble those in his sample. The demographic samples to which he compares his work to do not necessarily reflect the audience intended for any game, but rather demographics collected by the game makers of those who take part in their games.

Jakkobsson and Taylor (2003) present another view of the way social networks are built in EverQuest, comparing them to typical romanticized versions of mafia family connections. The researchers use a variety of methodological approaches, primarily online ethnography and participant observation, as well as some interviews of players. The researchers also made an examination of written communications from bulletin boards and Web pages devoted to the MMORPG EverQuest. They consider informal groups, more established groups and guilds as social networks. Jakobbsen and Taylor evaluate these groups in relation to concepts such as trust, honor and reputation.

2.6 The Rhetoric of Frivolity

According to Sutton-Smith (1997) this concept of play views play as not serious and as simply fun. The research in the rhetoric of frivolity often deals with popular

culture. People often shrug off video games as frivolous because they are merely popular culture, but the players often take their games very seriously.

A thorough, though not scholarly, examination of the history of video games as an element of popular culture is found in DeMaria and Wilson's (2002) High Score! The Illustrated History of Electronic Games. Other histories of the various aspects of video gaming are available as well. They include, for instance, general histories such as Kent's (2001), a history of Nintendo (Sheff and Eddy, 1999), a history of arcade games (Sellers, 2001), and a history of the influence of Japanese video games on video gaming (Kohler, 2004).

Aarseth (1997) in his book Cybertext: Perspectives on Ergodic Literature refers to those whom he calls trivialists with respect to video adventure games. To the trivialist, games are only games and cannot attain the sophistication of a novel. Aarseth claims that the point is irrelevant because games must be considered on their own merit rather than criticized as literature.

While elements of the theatrical nature of CoH are considered in this research in regards to the question of meaning-making, the game itself is not considered as either a literary or cinematic object. Rather it is considered in light of its own environment.

2.7 The Dark Side of Gaming

Any review of video or computer game literature would be incomplete without some mention of the research into the darker side of gaming. For most people the immediate image of the dark side of gaming is violence. There is a belief among media theorists, policy makers and others that violent video games promote violence. Craig

Anderson (2003), a leading researcher in the field of video game violence says this:

> Two features of video games fuel renewed interest by researchers, public policy makers, and the general public. First, the active role required by video games is a double-edged sword. It helps educational video games be excellent teaching tools for motivational and learning process reasons. But, it also may make violent video games even more hazardous than violent television or cinema. Second, the arrival of a new generation of ultraviolent video games beginning in the early 1990s and continuing unabated to the present resulted in large numbers of children and youths actively participating in entertainment violence that went way beyond anything available to them on television or in movies.

While Anderson claims it should be long over, the controversy continues about the effects of both positive and negative aspects of gaming.

2.7.1 Addiction

Another of the less attractive undersides that online computer games are blamed for is addiction. According to a 1993 article in The Atlantic, "Not surprisingly, MUD addiction flourishes, some players spend as much as eighty hours a week on the games, and tales of MUDders who have flunked out of college as a result of their obsession are common." (Leslie, 1993, p. 1, online database version). A most extreme example of this phenomenon is the case of Samuel Simpson, a boy of two, who plays Nintendo games 10 hours a day and is inconsolable when removed from them (Yelland & Lloyd, 2001).

The players themselves have a mixed take on the question of addiction. Yee posits that some of them resist the term because of the amount of blame put on RPGs for all kinds of evil. However, 10-20% of players in Yee's (2002) study admit to addictive behavior. Examples include the 26 year-old male who plays EverQuest (EQ) for 12 hours at a time even though he realizes that he should be doing something else and the 27 year-old female who sits her two and a half year old daughter in front of the television so that the mother can play EQ uninterrupted (Yee, 2001). Many players trivialized the issue saying that game abuse certainly was not as serious an issue as substance abuse (Yee, 2002).

There is a dearth of information that compares game addiction to other addictions. However, Greenberg, Lewis and Dodd (1999) studied game addiction alongside other types of addiction. The research compared game addiction with coffee, chocolate, alcohol, cigarettes, exercise, gambling, Internet use and television. Although game addiction was found to have a negative effect on self-esteem, it was rated lowest for addiction among the activity-related addictions in this study.

2.7.2 Gender-related violence and harassment

While some forms of violence and "griefing" were mentioned earlier there is another form of violence that is rarely considered in the literature, but exists nonetheless—online rape. Dibbell (1998) in an online article describes a particularly vicious example of this kind of action, in this case in a MOO. Although the violence takes place as words on a screen, it seems to have some of the same psychological effects as a physical rape.

Games, of course, are not the only place in cyberspace where such violent gender-related matters arise. For instance, Lessig (1999) tells the story of Jake, a seemingly mild mannered university student who wrote graphic stories of rape, kidnapping, torture and murder of women for publication in cyberspace. He was "set free in cyberspace to become the author of this violence" (p. 16), something he could not do in "real space."

Not only is there gender-related violence in-game, there is also a culture of gender-related violence in game advertising. Nikki Douglas (2006), long time editor and writer on grrlgamer.com, a Web site devoted to women who game, pointed out in a recent editorial that:

> In the April 2006 issue of Computer Gaming World there is a gatefold ad for the new Hitman game. It is a woman lying in lingerie on a bed in slut-pumps with a bullet-hole in her forehead. The tagline is "Beautifully executed."

She continues with her reaction to the ad:

> This is wrong on so many levels that I can barely articulate how it made me feel. Violated. Disgusted. Sick. Violence against women is very real and it is not a cheeky or funny thing. What this ad suggests is that not only does the Hitman kill the beautiful woman but he has his way with her first. Great. Violence against women and possible rape. All to sell a game to men. Will gamers get to kill this beautiful woman in the game after having sex with her? Is that the lure of the game? Shame on Eidos for this repugnant ad and even more shame on Computer Gaming World (which

used to be a relatively female friendly gaming magazine) for running it (para. 11-12).

2.7.3 Gender switching

In a preliminary study of Online Role Playing Games Adams (2002) found that each of her participants spoke of people gender switching in the online environment. Some of the gender switching appeared to be quite innocent, for instance choosing a character of the opposite gender because the player wanted to play a certain type of character class that contained only males or only females, or that had powers specified as intrinsic within the game to only one gender or the other. Other times, however, gender switching was done deliberately with the idea of confusing others, even to the point of attempting to "hit on" other players. There is also some evidence that male players will play female characters in order to get help from male players. Of course, as noted above, sometimes appearing as female can open a player to gender-related harassment. It is generally impossible to know, except by guessing, whether an avatar is played by a male or a female, unless the player shares that information. Due to the anonymity of the environment, even such an admission can be suspect.

2.8 Interface and Design

Johnson-Eilola (1998) likens modernist thinking to "living in time" and postmodernist thinking to "living in space" with a constant stimulation and an "all at once shout" (p. 185). Through casual observation of computer games and the children and young adults who are playing them, he has concluded that the design of game interfaces supports the postmodern. He claims that, "Children learn here [in the interfaces] to deal

tactically with contingency, multiplicity, and uncertainty. Modernists are compelled to understand the rules before playing a game…postmodernists are capable of working such chaotic environments from within, moment by moment" (p. 195).

Wilson (2006) addresses the problem of a distracting interface in this way:

> For many years, game developers have spoken of the goal of achieving a cinema-quality experience in a video game. One of the key ingredients for such an experience is the successful immersion of the player into the game world. Just as a filmmaker doesn't want a viewer to stop and think, 'This is only a movie,' a game developer should strive to avoid moments that cause a gamer to think, 'This is just a game' (p.1).

In CoH, it is necessary to deal with a chaotic and distracting environment in order to succeed.

2.9 Theories of Information Behavior and Meaning-Making in the Research

In its earlier incarnations, what we now call information behavior, or sometimes information-seeking behavior was known as the study of information needs and uses. The study in this area was almost entirely constrained to the study of scientists, engineers and other types of technical and professional groups, and documents specific to these groups This early research was primarily quantitative and positivistic. Goodall (n.d.) refers to this research as the "physical paradigm." Later the physical paradigm gave way to what are often referred to as the "cognitive viewpoint" and the "social approaches." The

difference between the physical and cognitive approaches are expressed this way, "The difference between these two approaches---the cognitive and the physical—is largely one of unit-of-analysis. In the physical paradigm, the focus is the document or the institution while the cognitive viewpoint uses the individual and the ways in which they construct information as the unit of focus" (Varlejs, 1987).

In 1976, Brenda Dervin's work begins to explore a shift from physical paradigms to a more user-centered one by examining and countering ten "dubious assumptions" she found in earlier writings. Case (2002) has cast these dubious assumptions as "Myths about information and information seeking" (p. 7)

Myth 1 is that, "only "objective" information is valuable" Dervin, 1976, quoted in Case, 2002, p. 8). This concept has problems in that people tend to rely on easily available sources of information, such as friends, family, whomever or whatever can offer us the first satisfactory response rather than the best solution. Williamson (1998) and Haythornewaite and Wellman (1998) suggest that family, friends and acquaintances make, up in large part, one's "information neighborhood" a concept regarding the people and places one goes to find information.

The concept of accepting the first satisfactory answer rather than continuing on to find the best solution seems to be supported in other literature by Zipf's (1949) principle of least effort. While Zipf did not claim his principle was theory, others have cited it (Poole, 1985) as a paradigm that allows for propositions to be derived.

Myth 4 is that, "Information can only be acquired by formal sources" (Dervin, 1976, quoted in Case, 2002, p. 8). Dervin maintains that, while those who work in educational institutions may believe that formal sources are the only sources of

information, it does not fit the way in which people gather information from their families, friends and others throughout their lives. Many other theorists, among them McKenzie (2002), whose model in part involves non-directed monitoring and unsolicited advice as means for information gathering, Erdelez (1997, 1999), whose work on accidental discovery or information encountering examines how people may encounter formal or informal sources or Choo's typology (1998) which has its lowest level undirected viewing or sensing of information.

Myth 7 is that, "It is always possible to make information available or accessible" (Dervin 1976, quoted in Case, 2002, p. 9)in debunking this myth, Dervin points out that information systems have limitations and that people often have unique, and unpredictable, questions that they find their own answers to.

Finally, myth 9 is "that time and space—individual situations—can be ignored in addressing information seeking and use" (Dervin, 1976, quoted in Case, 2002, p. 9). But it is often the seekers "definition of the situation" that shapes her need. The notion of time and space, and the definition of situation were particularly important in this research, since they are important to the both Everyday Life Information Seeking (ELIS) and dramaturgy that served in large part as analytic lenses for the work

In the early 1980's the study of information needs and uses began to take a more user-centered approach to the problem of what may be called information behavior. Brenda Dervin and Michael Nilan (1986) provide an overview of the shift from "uses" to "user-centered" approaches to the subject. This much-cited chapter is often seen as a turning point in user studies. A number of researchers arrived more or less independently at the user-centered approach to the study of information behavior. Wilson (1994) refers

to Belkin, Oddy, and Brooks (1982), Dervin and Nilan (1986) and Wilson (1981) as some of the most influential researchers in the early stages of user-centered research. Because they take a user-centered approach, Dervin's (1976) work and Dervin and Nilan's (1986) chapter in the Annual Review of Information Science and Technology, are considered by many to be the turning point that led the field to a more cognitive viewpoint.

In the last two decades a presumably new set of approaches to information seeking and behavior appeared alongside the cognitive. Chatman's (1996, 199) work is often cited as a turning point toward a less cognitive and individualistic approach (Pettigrew, Fidel and Bruce. 2001). Goodall (n.d.) refers to these as the "social approaches" and contends that they and the cognitive approaches are both aspects of the same movement within the literature of the library and information science that emerged through the influence of the social sciences.

The multidisciplinary nature of information behavior research is one of its strengths. Much of the method and theory is drawn from a variety of social sciences and professional literatures. Wilson (1994) identifies at least six other overlapping fields of study where information behavior or "user studies" is involved. He names specifically; Communication, Marketing, Personality, Computer Systems, Media Studies and Health Communication studies. Donald Case (2002) in his broad review of information seeking, needs and behavior studies names the following disciplines from which he drew examples; information studies, communications, psychology, management, business, medicine, and public health. The researcher also contends that there is a place for sociology and social psychology within the literature. The dramaturgical approach

provides another step into the examination of not only information behavior but meaning-making on a social scale.

Dramaturgical approaches do not seem to appear in the literature of the field of information behavior, although information behavior studies do include concepts from Goffman (1959, 1967), particularly the ideas of presentation of self and face work (Burnett, Besant and Chatman, 2001; Ellis, Oldridge and Vasconcelos, 2004).

2.9.1 An overview of the information behavior and meaning-making research used in this study

Just as play theory grows from the roots of many disciplines, what is referred to as information behavior theory encompasses a wide variety of disciplinary studies as mentioned above. This research is based on four overlapping types of theory, all related to the information behavior and the making of meaning. The sets of theory considered as primary to this research include, but are not limited to, Everyday Life Information Seeking Theory (ELIS) (Savolainen, 1995; McKenzie, 2002), sense-making, (Dervin, 1983), folk psychology, (Bruner 1990), and dramaturgical analysis (Hare and Blumberg 1988).

Each of the above-mentioned meaning-making theories arises from a different disciplinary background and views meaning-making from a different perspective. Sense-making was developed in the 1970s by communications scholar Brenda Dervin (1983). Many other researchers in a variety of disciplines including library and information science have adapted it to their own use (See the Sense-making website, 2005). It is described alternately as theory and methodology, and it is perhaps both. Sense-making has been used in innumerable ways to examine how both individuals

and groups of individuals make sense of their worlds. It makes no distinction between information and knowledge. Dervin (1999) says this about the sense-making approach:

> In this view, knowledge is the sense made at a particular point in time-space by someone. Sometimes, it gets shared and codified: sometimes a number of people agree upon it; sometimes it enters into a formalized discourse and gets published; sometimes it gets tested in other times and spaces and takes on the status of facts. Sometimes, it is fleeting and unexpressed. Sometimes it is hidden and suppressed…Sometimes it requires reconceptualizing a world (p. 36).

ELIS is a product of information science and has as its primary concern how groups of people seek information to maintain coherence within their communities whether a work community, a particular status, or any other group or understand everyday life situations and therefore attain mastery of life. The focus of ELIS is on the information practices of a particular group of people. Some models have been suggested for ELIS, among them Savolainen's (1995) model and the two dimensional model of information practices proposed by McKenzie (2002). McKenzie's model was a product of her ELIS research with women pregnant with twins. [3]

In defining folk psychology or commonsense psychology, Hutto (2004) contends that, "It is almost universally assumed that the main business of commonsense psychology to provide reliable *predictions* and *explanations* of the actions of others" (p. 548). Bruner's (1990) notion of folk psychology is inseparably

[3] McKenzie became interested in multiple-birth pregnancies when she herself had twins. See also Carey, McKechnie & McKenzie (2001) for further information on her multiple birth studies.

connected with the concept of meaning-making within and through culture. In Bruner's words, "It is man's [sic] participation in culture and realization of his mental powers *through* culture that make it impossible to construct human psychology on the basis of the individual alone" (p. 12). He argues for a psychology based on meaning-making rather than the information processing or computational model that was adopted by cognitive science, and claims that meaning-making is public, shared and negotiated publicly.

And finally, dramaturgical analysis focuses on the interaction between individuals and the situation. It emerges from the symbolic interactionist tradition referred to in Chapter 1 of this dissertation. Erving Goffman is often credited as one of the founders of the dramaturgical approach, particularly in his book The Presentation of Self in Everyday Life, (1959) although there were others that came before him. While in the 1960s and 1970s the work of Goffman and others was considered radical, it is now nearly mainstream (Edgley, 2003).

As the name implies, dramaturgical analysis uses a theatrical framework to study social life. It is particularly concerned with meanings and the making of meaning. "Simply put, dramaturgy is the study of how human beings accomplish meanings in their lives." (Brissett & Edgley, 1990, p. 2) The characteristic assumption of this perspective is that both the meaning of an event and of the self are constructed by actors through social interaction and that the unit of analysis must be the interacting persons and not the individual (Hare & Blumberg, 1988).

All of the social and cognitive literature reviewed in this section of the literature has in common a social or sociological basis for the study of information

behavior and/or meaning-making. Savolainen (1993) refers to the sense-making approach as micro-sociological. Savolainen, himself a researcher in everyday life information seeking points out that micro-sociological methods in general, unlike sense making, adopt social rather than individual ontologies. And dramaturgy as an off-shoot of symbolic interactionism is also considered a micro-sociological approach according to Goodall (n.d.).

2.9.1.2 Some important particulars about sense-making as related to this research

One of the most ambitious attempts to explain the origins of information needs comes from communications researcher, Brenda Dervin. She believes that we have a need to "make sense" of the world and that the need:

> Implies a state that arises within a person, suggesting some kind of gap that requires filling. When applied to the word information, as in information need, what is suggested is a gap that can be filled by something the needing person calls 'information'(p.70).

Dervin prefers to frame information needs as a need to *make sense* of a current situation, and so the concept of sense-making that suggests a search for information starts with questions aimed at making sense of the situation. Communication is a part of the process of "bridging the gap" to reach desired information. It is the searcher's concept of the gap and the bridge that shape the strategies employed in finding the answers, ideas and

resources obtained. In other words, users are engaged in a search for meaning (Cornelius, 1996; Wilson, 1984).

Sense-making has incorporated Dewey (1960), Kelly (1963) and Bruner's (1990) notions of, "life as an encounter with problems and discontinuities in knowledge, and also the view that information is something we create through our own interaction with the obstacles in our progress through life" (Case, 2002, p.147). The notion of "making sense" also has roots in sociology, in the work of Garfinkel (1967), for instance.

2.9.1.3 Some important particulars about Everyday Life Information Seeking as related to this research

While it is clear from the discussion of Dervin's work above that she and others ushered in a more person-centered or user-centered view of information behavior, it is also important that the information seeking behaviors of everyday people became an important object of study. Dervin was involved in a 1973 study of information needs in Baltimore (Warner, Murray & Palmour, 1973) concentrated on information needs from the direction of the ordinary life and work of urban residents. They were not asked about their information needs, but rather to identify problems and how they solved them.

While the so-called Baltimore study was a large-scale examination of everyday life information seeking (ELIS) there have been a number of smaller studies related to specific information needs. For instance, McKenzie's (2002) study of women pregnant with twins, Savolainen's (1995) study of teachers and blue collar workers, and Williamson's (1998) study of older adults, Huotari & Chatman's (2001), study of

workers in an organization, and Carey, McKechnie & McKenzie's (2001) studies of people in support groups, pregnant women, and children are just a few.

Researchers have produced many concepts of interest in the attempt to define how information is found. There are many categories that can roughly be defined as "active" and "passive" information seeking. These categories do overlap considerably.

Active forms of are described in Wilson (1997) using the terms active search and passive search. Erdelez's (1996) uses the terms information seeking and browsing, and Tom's (1998) searching and browsing. McKenzie (2002) describes the active categories in her model calling them active seeking and active scanning. Such concepts as passive search and browsing are considered active because the information seeker may not be able to articulate the need for anything specific, she has put herself in an information neighborhood where appropriate information may be found.

More passive forms of information seeking are described in McKenzie's (2002) non-directed monitoring, Savolainen's (1995) monitoring the context, Tom's (1998) chance encounters, Wilson's (1997) passive attention, Ross' (1999) finding without seeking, and Erdelez (1996) information encountering. Each of these constructs relates to finding information in an unlikely place or finding it while monitoring resources in a general way, just to stay informed. Perhaps the most passive way to find information is being told, that is, through being given unsolicited advice or referral, this is what McKenzie (2002) describes as "by proxy" (p. 27)

2.9.1.4 Some important aspects of the dramaturgical approach as related to this research

Both sense-making and ELIS, according to Savolainen (1993) adopt a micro-sociological viewpoint. However, he points out that some ELIS and other social approaches favor the social unit rather than the individual in their methodologies. Dramaturgical methods, having grown out of the micro-sociological approach of symbolic interactionism, use the social unit as the unit of analysis, and fit squarely within the micro-sociological concepts for considering information behavior. Furthermore. Burnett (2000) equates Riva and Galimberti's (1998) concept of "shared construction of meanings" to Dervin's (1983, 1997) "sense-making." Dramaturgy also concerns the construction of meanings in a social environment.

Erving Goffman's (1959a, 1959b, 1967, 1974) work is often credited with the foundation of dramaturgical analysis. The concepts of presentation of self, frames and face work are often cited in other fields as having an effect on the research. All of these concepts derive from a symbolic interactionist perspective. In information behavior, Goffman's work is most evident in the literature on communities of practice (For a review of that literature see Davenport and Hall, 2002).

Even among authors who have used Goffman's theories in information behavior research, dramaturgy has not, to the researcher's knowledge, been employed as method of data analysis in the field. It does however lend itself to the study of information behavior in the highly theatrical environment of virtual play spaces and online communities.

2.10 Summary

In this chapter, the researcher has outlined some of the literatures of games and gaming using six of Brian Sutton-Smith's (1997) seven rhetorics of play as an organizing principle. Each of the rhetorics has grown from a different disciplinary background, this results in a multidisciplinary look at the literature through the lenses of education, psychology, sociology, anthropology, art, literature, psychiatry and pop culture.

An outline of theories and methodologies of information behavior pertinent to the research were also reviewed.

Chapter Three—Methodology

3.1 Qualitative Paradigm[4]

Qualitative researchers seek answers to questions that stress how social experience is created and given meaning. In contrast, quantitative researchers emphasize answering their research questions by measuring, either experimentally or by the use of factors such as frequency or intensity. Because qualitative researchers do not use such measurements, their research is sometimes regarded as impressionistic and "not objective." Qualitative researchers recognize all research as value-laden, and so are concerned with being introspective about their own roles in the research.

In fact, people are the ideal instrument for studying human situations and events:

> The advantage of beginning with a fund not only of propositional knowledge but also of tacit knowledge and the ability to be infinitely adaptable make the human investigator ideal in situations in which the design is emergent; the human can sense salient factors, think of ways to follow up on them, and make continuous changes, all while actively engaged in the inquiry itself (Lincoln and Guba, 1985, p.107).

There are still, of course, imperfections in human beings, and so we must strive for balance and fairness. Qualitative researchers employ a number of techniques which, while they cannot guarantee balance and fairness, can help to achieve them. Those techniques will be considered further later in this chapter.

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[4] This discussion of qualitative work owes a great deal to the work of Denzin and Lincoln, eds. Handbook of Qualitative Research, 2nd ed. and Lincoln and Guba Naturalistic Inquiry,

Three elements of importance in conducting qualitative research are capturing the point of view of the individual, situating it within the constraints of everyday life, and providing thick description of the setting.

Qualitative researchers believe that securing the point of view of the individual is paramount to understanding any situation. For this reason they seek to achieve understanding directly from the individual or individuals through a variety of means, including the use of interviews, focus groups and various other types of observation. Qualitative research, in fact, requires researchers to become familiar as much as is possible with their participants' interpretations of reality. The qualitative paradigm requires that conclusions be situated in the real world and examined on a case-by-case basis. In order to accomplish the task of understanding both the individual's point of view and the context qualitative researchers must make sense of enormous sets of data.

The reports of these cases must be written clearly and at a level of detail that is complete enough to allow readers to understand the case being studied and the context surrounding it. This quality is often described as thick description (Geertz, 1973; Ryle, 1971) and it draws heavily from the words and perceived experiences of the participants themselves. The reports must be clear enough for readers to determine if the research might be transferable to their own cases. Transferability is an important property of rigorous qualitative research that is discussed further below.

There is not just a single way to conduct qualitative research. This particular study made use primarily of ethnographic methods to provide a case study of information behavior in the virtual play space of CoH.

3.2 Ethnography

Ethnography is by definition the study of a culture or a people. As described in Chapter 1 of this dissertation, City of Heroes and other virtual play spaces possess the same elements basic to any culture: cultural behavior, as expressed by the speech and movement of the avatars; cultural artifacts, those virtual items in the game space that signal wealth and status; and cultural knowledge, displayed in the communication between avatars, in the manual and in the forums and Web sites. Because the virtual play spaces possess these basic elements of culture it should be possible to study them ethnographically.

Although ethnography grew out of the studies of various cultures in anthropology, non-anthropologists also now use it to study subcultures in their own societies (Silverman, 2000). The intent of this study was to examine how play theories and meaning-making theories serve to explain the development and maintenance of peer cultures within the virtual world of the game or games. Beyond that, the study was an examination of other aspects of information behavior, meaning-making and play theory that were evident in CoH as a particular virtual play space.

The primary method of data gathering consisted of participant observation in the world of the game. Because it is impossible to participate in a virtual play space without interacting with others, it is impossible to participate on a surface level. In fact, native understanding is vital to the purposed research. Specifically, this research consisted of participant observation in the world of CoH, with the intention of eventually studying a particular team or Supergroup, preferably as a member of that group. It became obvious,

however, that the Supergroups were extremely easy to form and did not, in general, stay together long. The focus of the observation, therefore, shifted to the smaller temporary teams that were constantly formed, divided and re-formed in the game space, as well as other information sources and behaviors. Specific hours and days of play were determined by long sessions at the beginning of the research period to discover the periodicity of play for particular groups if there was one. When no time of day or days of the week became apparent as specific times for the play of any particular group or groups, the researcher made the decision to play one to four-plus hour sessions at least once a day, sometimes more.

Many examples of research exist in which the researcher serves as an instrument for the research (see for example, Liebow, 1968 and Howell, 1973). There are also examples of immersive types of participatory research, with regard to sports and other activities. Sociologist Wacquant (2004), for instance, and participatory journalist Plimpton (1965) have written about a variety of sports. Fine (1983) participated in the shared fantasy of pencil and paper role-playing games to examine the social structure of that world. Turkle (1984, 1994, 1997) performed research on identity in various MUDs (Multi-User Domains) and MOOs (Object Oriented MUDs) and concluded that it was impossible to observe without participation, because even observation requires some significant personal involvement. The definition of RPGs, by their aficionados as we have seen, is that they are not games so much as experiences.

3.2.1 Performing ethnographic research

Field notes are vital to any research involving participant observation. Spradley (1980) suggests four types of field notes including personal journals. The other three are condensed accounts, expanded accounts and notes for analysis and interpretation. Personal journals offer a place for introspection, a vital part of data gathering in participant observation. Because of the complex nature of participating and observing in the virtual play space, it soon became clear that the researcher could not take field notes as she was taking part in the experience and observing, and too much happened during a play session to be committed to memory and written down later, therefore she used a voice-activated tape recorder to capture her field notes in the moment. The tape recorder was also inadvertently activated by ambient sounds on the computer, which while their recording was unplanned, served the researcher during the analysis of the data.

By participating fully in a social environment, the researcher becomes an instrument of the research, and her thoughts, feelings and experiences become part of the data. Reviewing a number of the main Web sites and forums to supplement observation is a data-gathering tactic used by previous researchers (Jakobssen and Taylor, 2003) in studying the world of EverQuest.

Other things to consider regarding ethnographic research, as with all qualitative research, are to demonstrate trustworthiness and the possible transferability of the research findings. The researcher addresses these concerns in section 8 below.

3.3 Ethical considerations

There were concerns inherent in the research about "human subjects." As noted earlier, although the researcher studied the avatars in the game environment, there is no escaping the fact that the avatars are created and controlled by humans. Because of the anonymous nature of the games, it is difficult or impossible to obtain informed consent.

One ethical dilemma of research in the anonymous and somewhat anarchical environment of online role-playing games is the implausibility of revealing that the researcher is in fact studying the group. At any given time the researcher may be participating with completely different avatars. These avatars may or may not represent the same person; therefore any attempt to inform the game population of one's position would be difficult at best. On the other hand, it is not possible to reveal the identities of anonymous avatars to the world outside the game. In this regard the research is much like other types of research involving surreptitious observation.

The anonymous gamers communicate freely with one another in the game world making it a largely a public performance, with others in the game world as the audience. Players have no expectation that others will not see their written communication in the chat windows, which reduces, but does not eliminate the ethical difficulty.

Further, although demographic statistics show that the majority of players are over 19 years of age, there are still children who play, so there is also the possibility that under-age players will be participating at any given time. Children are a special concern in research situations because they are considered, especially at younger ages,

to be a population particularly vulnerable to physical and psychological harm and unable to give informed consent. Furthermore, in most instances the study of children requires not only the consent or assent of the child, but also that of parents or legal guardians, who are empowered to protect their children and therefore to serve as the final arbiters of whether their children will participate in research.

However, this research qualified for a waiver of informed consent under Federal regulations for the following reasons:

-The research poses little or no risk to those observed.

-The research will not adversely affect the rights and welfare of the subjects.

-The research cannot be practicably carried out without the waiver.

3.4 Data Sources

Data for the research were gathered from a variety of sources, such as field notes, journals, electronic recording of screenshots and in-game conversation, forums and Web sites (both official and unofficial), and casual conversation. Observations contained in field notes and personal journals, viewing of fan sites and discussion forums, and a close reading of the game manual, both the original version and a later version are chief among the data sources. Each of these provides a rich source of information for understanding the milieu of the virtual play space.

3.5 Data Collection

3.5.1 Field notes and journals

Field notes and personal journaling for this study were produced first in the form of audio recordings taken in a stream-of-consciousness talk-aloud protocol followed by post-session reflections. The researcher transcribed her own tapes throughout the research (although not necessarily immediately after each session), which led to many other insights and reflections along the way. She transcribed the majority of the tapes completely although once the data became repetitive only parts of the tapes were transcribed. The method also shaped the directions in which the researcher began to investigate further.

Examining Web forums, both those created by the game creators and those created independently, also added to the data collected. Further locations of important data were suggested by this exercise. Other data included Supergroup Web pages and other online sources.

Finally, the original manual that came with the game was closely examined, and as the game world evolved another downloadable version of the manual appeared on the main CoH Web site. This version was examined as well. The manual was examined only briefly before playing the game, as this seems to be the way most players approach games. As the research continued, further study of the manual was made as needed, and finally near the end of data collection the manual was examined more closely.

3.5.1.1 Electronic recording of screenshots and in-game interaction

The most important way of gathering information as a researcher while playing the game was field notes and journals recorded during and after play sessions. However, there was also the possibility of capturing data in some novel ways as well. Some examples of these novel approaches are electronic recordings of screenshots (which also show chat windows at any selected moment) and reviewing materials on public message boards.

The nature of information exchange in the game environment requires the immersion allowed by participant observation because of the unique character of the exchanges involved. The milieu of the in-game communication resembles that of a chat room with conversations overlapping each other. It was possible to record some of the in-game dialogue both through reading it onto tape, or using screen capture, to be used solely as a supplement to field notes and message boards. It was obviously impractical to record 20 or more hours per week, if for no other reason than the number of interactions to be examined. Nevertheless, it was somewhat useful to electronically record exchanges, as a supplement to field notes and a source of more direct quotations and paraphrases.

The gathering of screenshots, or electronic recordings of exactly what is seen on the computer screen, also allowed the opportunity to look more deeply at interface elements and other information sources. Some of these screenshots appear as illustrations in this document. The game's makers have an express statement on their Web site at http://cityofheroes.com that allows for use of screenshots and other materials for non-commercial use.

3.5.1.2 Forums, Web pages, informal conversation

Web forums, both those provided formally by the game creators and those created separately by gamers, are a kind of public communication with the participants' own words and can supplement observation within the game world.

Game players also create their own unofficial Web pages, such as Gameamp and Stratics, that were a rich source of data about how the players played the game, what they thought of changes to the game, and the like. The Web sites contain everything from fan written stories and histories to detailed maps to mission suggestions. The forums on these sites and on the official CoH site were of particular importance in understanding the experience of other players in order to determine trustworthiness of the research.

Bill Gillham (2000) also suggests that bits of informal discussion and commentary can be included in research as evidence. Some examples of informal discussion are comments made by someone during a general discussion of MMORPGs or a comment made in the virtual world that pertains to some element of the research. Comments made in conversation following the presentations at various conferences about the researcher's work or the work of others who study games were particularly useful in providing ways to think about the research. Conversations with players of online role-playing games were also particularly important and the researcher incorporated these bits of conversation into her notes and thoughts as the research continued.

3. 5.1.3 Physical artifacts

In traditional ethnographies in cultural anthropology, for instance, researchers often use physical artifacts as evidence. Even in ethnographies of other kinds, physical artifacts of a different nature can be consulted. These artifacts might include such things as archival materials, letters, photos and so on.

In a virtual play space, even though the artifacts are not physical in the customary sense, there are still virtual objects that can be included as evidence about the nature of an avatar or situation. For instance, costumes and the physical appearance of characters can tell the researcher much about others and their status and experience in the virtual play space.

3.6 Data analysis

The analysis of data gained from field notes and other supporting materials was cyclical in nature. While the components of the intended analysis seen in this account to be roughly sequential, they actually proceeded through repeated iterations as the participant observation progressed. Furthermore, data were collected at different levels of detail throughout the research, and the researcher reviewed the field notes regularly.

Although this research was focused on information behavior and meaning-making in the creation of peer cultures, it would have been myopic to attempt to begin by looking *only* for those elements that supported the conceptual background laid out earlier in this research. Therefore, the researcher first acted as an observer of the

general culture of CoH by collecting general descriptive data. Part of the collection of of descriptive data entailed familiarizing herself with the virtual play space. The collection of general data, among other things, contributed to the emergence of further questions beyond the initial focus of the work.

Going beyond the overall context, the researcher sought direction from this initial analysis to focus her observations in order to answer her questions. It is impossible to observe everywhere at once no matter how diligent the researcher, and it is important to focus on what to observe as well as to be aware of what is being left behind. It was necessary during the research to observe a larger part of the overall culture in order to examine group formation and to examine any other in-game relationships that could be explained or understood in light of information behavior theory or play theory.

Wolcott (1990) refers to the descriptive sections of any qualitative research as a subtle analysis of the data. It is at this level that Spradley (1980) suggests the use of a matrix or matrices to help capture detailed description by asking increasingly focused or mini-tour questions. He suggests that the matrix contain questions regarding place, actor, activity, object, act, event, time, goal and feeling as they intersect with each other in order to further focus the research. The researcher began the design of the matrices to help focus information from initial field notes, and new foci for the analysis emerged. As answers to these questions continued to be gathered from the field notes other questions of greater or lesser granularity arose to further direct the research analysis. A sample matrix containing such questions regarding a specific area of the game is below.

	"PLACE"	OBJECTS	ACTS AND ACTIVITIES	AGENT/ AGENCY	GOAL	FEEL-ING
"PLACE"	How can a Hollows mission be mapped?	How can the objects available define the Hollows?	What acts and activities need to take place in the Hollows?	How do the players as agents use the place?	How is the Hollows related to the goals within it	Is the Hollows related to any feelings
OBJECTS	What objects in this area aid in or impeded game play and information behavior?	How can the objects in this area be described?	How are objects used in the acts in this mission?	What objects do players as agents use to perform the mission?	What objects are needed to achieve the goals?	How do objects relate to feelings in the mission
ACTS/ACTIVITIES	What activities take place in the Hollows?	What objects are used to accomplish the acts in the Hollows?	How can the acts and activities in the Hollows be described?	How are objects used by agents to perform the mission?	What activities are necessary to achieve a goal?	How to activities and feelings relate to each other in the Hollows?
AGENT/ AGENCY	How do the agents achieve a sense of agency in the Hollows?	How does the agent use objects in the Hollows?	How does the agent perform the required acts in the Hollows?	How do agents interact in the Hollows?	How do agents achieve their goals in the Hollows?	How do the feelings involve and affect the agents?
GOAL	What goals are important to the Hollows	What are the ways that goals require the use of objects?	What activities seek to accomplish the goal?	How do the goals affect the actors?	What are the goals in any particular mission in the Hollows	How do goals evoke feelings
FEELING	Are there any particular places in the Hollows that are associated with feeling?	What feelings are associated with the objects?	How do feelings affect and involve actors and their activities?	How do feelings affect the actors actions	What feelings are associated with the goals in the Hollows?	What are the feelings that arise?

Table 3.1 -- Sample matrix adapted from Spradley (1980) including some of the questions asked about missions in an area of the virtual play space known as the Hollows.

It is evident that the researcher selected only some of the nine categories suggested by Spradley (1980) above. She eliminated some categories while collapsing others. The selection of appropriate categories was a result of attempting to answer questions from the inclusive set of categories about the virtual play space in general. The resulting categories served to focus attention on what seemed the most fruitful areas for information seeking and meaning-making behaviors. Once the questions became familiar and recurred at different levels and in different circumstances, the researcher spent more time with card sorting and margin coding to refine the descriptions and themes thus iteratively working between questioning the field notes and refining the themes. For instance, questions occurring at the intersection of goals and agency, objects (primarily defined ultimately as interface elements) and goals, objects and activities, goals and activities and perhaps most important agents and agents, tended to be the ones that drew the researcher.

Wolcott (1990) and Spradley (1980) emphasize the need to maintain the essence of the work without being overwhelmed by so many data that final analysis becomes nearly impossible. Miles and Huberman (1994) suggest that, by performing initial coding along the way, the process of data analysis becomes more manageable. By developing coding schemata, and further focusing the research as noted above, the researcher began to perceive trends and patterns. Through use of notes and card sorting general themes emerged ranging from descriptive to thematic, and entries in a personal journal were used to aid in identifying patterns. Once a pattern is perceived it will seem to appear over and over again. Therefore, the researcher had to take care to notice and reflect on instances that did not fit into the pattern and be willing to

consider that there might be actually something different happening. Introspection of this kind is extremely important in cases in which the researcher is also an instrument of the research.

Writing was also a continuous part of the data analysis in this study. Wolcott (1990) suggests that a researcher can never start the writing process too early. He suggests free-writing, that is, just letting ideas flow, as a means of thinking about the research as it progresses. He also says that writing helps to sort and organize thoughts. The creation of charts and visual displays may also be used to determine relationships by clarifying them both for the researcher and the reader (Miles and Huberman, 1994, Spradley, 1980, and Wolcott, 1990). One of the means by which the analytic writing was accomplished in this case was in writing parts of the research as they stood in any given moment for presentation at a variety of conferences. This strategy also served the purpose of gaining advice and commentary along the way from a broad assortment of perspectives.

While a number of software systems exist that can help the researcher sort, organize, and find trends in qualitative data, the researcher chose not to use one, preferring instead to allow the themes to surface more naturalistically. In order to do so, she used the matrices mentioned above; rough coding of the field notes, the thoughts from personal journals and card sorting. The card sorting consisted of the cutting and pasting of text from field notes, personal notes, forums and other sources to index cards and manually manipulating the cards in various ways that allowed for more and clearer themes to emerge.

The text chosen for the cards was selected in the following ways: pieces of the field notes, Web pages, personal journals, and other data sources that referred generally to the concepts and theories referred to in the research questions (information behavior, grouping, play theory etc.), general description of the environment and play experience, examples of social interaction and so forth. There were between 300 and 350 cards when data and category saturation was reached. The text for cards was not selected all at one time, but rather through repeated readings (and in some cases reviewing of the field notes through listening) of the data sources.

The card sorting itself took many forms, for example, literally laying out the cards on a large surface and making determinations about how various pieces of data described the same sort of experiences, thus discovering patterns and creating the categories discussed above. In this way, some of the experiences described in the field notes and journals were linked with the conversation of others and the commentary on the Web sites. As the research progressed, more stable categories and lines of inquiry were established and the cards were sorted and reviewed (along with other data) to provide evidence for the researcher's conclusions.

There are a number of problems associated with analyzing data using the card sorting approach described above. One is the purely logistical problem of handling and remembering so many cards and concepts at one time. Another challenge for the researcher was the temptation of narrowing the research too soon as opposed to having an unmanageable number of categories. Another aspect of the data gathering and analysis that troubled the researcher was that while she was prepared for results to be different than expected, she found it startling that much of what she was seeing did not

relate well to her initial questions. It was through the initial card sorting that the first consideration of including further questions and analytical methods came about.

While the use of computer software for qualitative research may have been easier and benefited the research in some ways, the researcher felt the need to be physically involved with the process of the creating and sorting of cards. The perceived need to actually manipulate the cards may be due to the fact that the research took place in a virtual environment and manual analysis provided a more tangible connection to the data.

3.6.1 Descriptive analysis of virtual play space as a deliberately created culture

While the intention, originally, was to consider CoH as a culturally real space, the concept did not apply in the way it had been anticipated. For this reason an examination through a slightly different lens was required. The initial element of this analysis was a narrative account of the activities that take place in the virtual play space, followed by an examination of the play space itself. In the context of the narrative review some elements of everyday life information seeking arose and are described. It should be made clear at this point, that the description and subsequent analyses mirror the researcher's own sense-making about the situation and the context being studied. In fact, as Rabinow (1977) points out, all cultural facts are interpretations, and that facts to be studied are made and re-made. "Therefore they cannot be collected as if they were rocks, picked up and put into cartons and shipped home to be analyzed in the laboratory" (p. 150). The work here is reflective of the

researcher's interpretations as they began, emerged, and grew through the course of the research.

Data suggested further analysis of CoH as a deliberately created culture which contained some very real seeming elements, but also some very external and artificial ones in order to operate as a virtual play space. The dramaturgical perspective, discussed further below, was determined by the researcher to be an appropriate lens for the examination of a deliberately created culture such as CoH.

3.6.2 Information Practices

MacKenzie (2002) offers one model of everyday life information seeking. She offers "a two dimensional model of the information practices described by participants" (p. 25). It includes a continuum of information practices from actively seeking out a known source or planning a strategy to receiving unsolicited advice.

In this model there are four modes of information seeking with concomitant ways of connecting and interacting with information sources. While MacKenzie's work grew out of her study of women pregnant with twins, the model can be applied to any individual in context, in this case the context of CoH.

The modes of information practice considered by McKenzie are: *active seeking* which is the most direct mode; *active scanning* including semi-directed browsing or scans of the environment; *non-directed monitoring*, which generally includes serendipitous kinds of discovery; and *by proxy*, a situation in which an individual gains the information through the agency or intermediation of another.

In the midst of the initial analysis of CoH, it occurred to the researcher that she might use these categories to examine some of the information seeking strategies of players. So with the framework of information practices in mind, she went back to the field notes and card sorting once more to see if players (through their avatars) did indeed use similar types of information practices to recover information necessary to accomplish their goals as those laid out by MacKenzie.

The researcher found that there were parallels between information seeking in-game and McKenzie's model of information seeking. She also found that the ways in which players found information in order to play the game paralleled information seeking in other environments.

3.6.3 Analysis through the dramaturgical perspective

Virtual play spaces lend themselves well to study using theatrical metaphors. More will be said about the theatrical metaphors applied to CoH in Chapter 4. The dramaturgical perspective generally is an off-shoot of symbolic interactionism mentioned in Chapter 1. Dramaturgical analysis uses concepts drawn from the elements of theatrical performance to analyze social phenomena. Brissett and Edgely (1990) describe dramaturgy "as the study of how human beings make meaning in their lives" (p. 2). Dramaturgical researchers are curious not about precisely what it is that people do, nor what they intend to do, nor even why they do it, but how they do it (Brissett and Edgley, 1990).

Sarbin (1976 quoted in Hare and Blumberg, (1988) lists the principal characteristics of the dramaturgical perspective:

1. The meaning of an event arises from social interaction.

2. The self (the recognition of individuality and separateness of others) is constructed in the social interaction.

3. Actors not only respond to situations but mould and create them.

4. The unit of analysis is not the individual but the interacting persons.

5. Individuals construct and reconstruct meanings to make sense of their observations.

The analysis of the data in this research in large part examined broad parallels between CoH and particular theatrical forms as well as the interactions in the game for the meaning made manifest in its playful interactions. As in any dramaturgical analysis, this research employed various parts of stage production as metaphors for analysis.

There are three basic critiques of dramaturgical analysis as theory and methodology. The first of these is the same charge addressed above about all qualitative work, that it is interpretivist and essentially impressionistic (Fine, 1993).

The second is that the dramaturgical approach is non-systematic, or non-theoretical, that it is essentially not propositionally tied to other theories. While an argument can be made about the nature of the dramaturgical approach, it is untrue that there are no links to other forms of social thought, "It is tied to symbolic interactionism, ethnomethodology, existential sociology, interpersonal psychology and other humanistic models in the social sciences as well as in the many varieties of sociological work inspired by the *oeuvre* of the late Erving Goffman" (Edgely, 2003, p. 150). Those who engage in dramaturgical analysis do not see the criticisms as problematic:

> Unlike those who would seek a linear explanation for all human conduct, dramaturgists do not see this as an unconditional liability. In fact, it is precisely because dramaturgy is *not* a closed theoretical system, but rather a way of describing human behavior, that it is such an informative and stimulating mode of thought (Edgely 2003, p. 150).

Finally, critics point to supposed methodological inadequacies in dramaturgy by saying that dramaturgy, particularly that of Goffman, has no specific and systematic method of testing its propositions about the world. Dramaturgists, on the other hand, claim that sensitivity to the expressive dimension of behavior requires no specialized methodology. To do dramaturgical analysis well, however, requires a single-minded commitment to the observation of people's actions and an appreciation that humans are always in the act of being and on the way to something else (Edgley, 2003).

Dramaturgy, then, in its acceptance of all types of theory and its emphasis on the observation of people's actions makes it an ideal form of analysis for this research. This is particularly true because of the dramatic nature of the play space and the play that goes on within it, especially since there is an emphasis on presentation of self in-game.

3.7 The Researcher's Role

3.7.1 The researcher as an instrument of the research (reflexivity)

A number of qualities combine to create an investigator who can serve as an instrument in a participant observation inquiry. These qualities go beyond the ability

to observe. For example, the researcher must open herself to not only watching but to "surrendering" (Wacquant 2004, p. 11) to the culture or situation in order to become a trusted member of the group. At the same time she must remain able to examine the situation from the outside. This dichotomy is what Spradley (1980) refers to as being an insider/outsider, sometimes fully consumed in the activity, others more engaged in watching from the outside, but always aware of both roles.

Another important quality of a researcher who is serving as an instrument of research is the ability for introspection. The introspective ability is related to the insider/outsider quality in that the researcher must be able to step back, think and write about the feelings and experiences that are occurring. What does it "feel" like to take part in the activity or culture? What is the "experience" like? A good deal of time must be spent in personal journaling to consider these and other questions.

Life experience is never really left out of any research, but it is particularly important in participant observation for the researcher to be aware of what she brings to the situation. Naturally there are preconceptions, but there are also strengths.

I believe that I possess many of the characteristics that made me an effective instrument in research of this type. For example, I had already polished the art of introspection and journaling in other parts of my own life, and believe that I made use of that practice in the course of the research as well.

I also have training that, while it may not be apparent as strength, certainly served this study, particularly given the dramaturgical analysis as the theoretical analytical stance. My original undergraduate degree is in the field of theater arts. As an actress I became accustomed to looking at myself as both myself and as a character.

This is an ability that was invaluable in the research since in order to participate I was required to create a character of my own. Oftentimes those involved in acting serve mindfully both as actor and as audience to their own performances and the performances of others, particularly during rehearsals. Further, and perhaps more specific to this particular research, I have the experience of both interacting with and observing others who have taken on assumed identities. Finally, in acting I found that I possessed a willingness and ability to be consumed by or surrender to a particular situation, whether pre-written or improvisational, and to extricate myself from it when necessary.

My undergraduate education also included a minor in sociology, and therefore an interest in the symbolic interactionist tradition expressed by such theorists as Cooley (1902), Mead (1934) and Goffman (1959). In the intervening years I taught sociology, as well as psychology and other disciplines in a junior college setting. My interest in sociology and comfort with a variety of other social scientific disciplines is a strength in research as multi-disciplinary as this is.

Further, in the course of considering and preparing this research I wrote and presented related papers at numerous conferences. The conferences represented a variety of focuses ranging from library and information science to play studies to popular culture studies. Each of these venues provided me with reactions from a variety of disciplines and strengthened my ability to conduct the research.

The final strength I had for conducting this particular research was my background in the game industry. I have been a partner in a small game development company and served in the capacity of business manager. During the time that I was

involved in the business I spent time in chat rooms devoted to games, and I learned the language, which allowed me to communicate, at least nominally, in conversation immediately.

3.8 Verification of Research Findings

3.8.1 Trustworthiness and transferability

Establishing trustworthiness and transferability in such an anonymous environment is a necessary challenge. In qualitative research it is important to consider whether we have an authentic account that makes sense to our readers. Such an account should provide a vicarious experience for the reader, inasmuch as it is possible. The researcher shared the text with selected peer debriefers as it emerged in order to check for the above qualities.

In order to further test trustworthiness and transferability, triangulation among sources was used. Participant observation, forum posting and any casual conversations offered a "life as lived" point of view compared to a "life as told" point of view (Miles and Huberman, 1994, p. 267). In addition, a comparison and contrast to other research on the social nature of games that has a different focus but had some overlapping concepts was an effective way to check the consistency and trustworthiness of the study.

Member checking is an exercise often recommended as a way of ensuring and determining the trustworthiness of research. Because of the sort of anonymity that exists in the game environment this tactic proved somewhat difficult. Therefore, a two-pronged approach was used to solicit comments on the work. First, commentary

was elicited from ordinary players (essentially member counterparts) in an otherwise highly anonymous environment. Secondly, the researcher sought commentary from peer debriefers of a more scholarly kind who were, preferably but not necessarily, players of the game in question or players of other similar games.

The intent of this study was not to attempt to generalize to other situations, but rather to provide a full and detailed description of the context and research that may be applied and tested in other situations. In order to make this transferability possible it was necessary to provide sufficiently complete information about the context of the study and processes of the research to provide other researchers meaningful comparisons with their own studies.

3.9 Summary

In this chapter I have described my conception of qualitative, ethnographic research. Further, I have described my approach, including data collection, data sources and data analysis. I have also described what I consider to be the most fruitful methods for the final analysis of the research. In the following chapters, I share what was found using these methods.

Chapter Four—Findings

In this chapter I examine some of the findings from my study of CoH. First I describe game play beginning with the creation of the characters, then I explain some peculiarities of the virtual play space and how I came to see it as theatrical. After that, I will present a specific parallel between a particular form of theater and CoH. Finally, I will offer an analysis of information behavior (particularly meaning-making), play theory, and game interactions through the lens of dramaturgy.

4.1 An Hour in the Life of a Superhero in CoH

In many ways these virtual worlds take on an aura of reality for the players, a place where players can choose who they want to be without the constraints of the outside world. One of the ways in which players can choose their identities is the creation of avatars. Avatars are the visual and behavioral embodiments of the players within the game. The avatars can, in fact, be seen as another dramatic representation of identity that is played out within a specific environment, just as identity is represented in our everyday lives. Not only are the avatars they create important to the individual players, they are also important to the social interaction in the game. Blundell (2002) points out that many of the conclusions that players come to regarding others relate to the onscreen appearance of characters. Multiplayer Online Games are highly connected places. The social connections occur on many levels, and are, to at least some degree based on the meanings that players derive about fellow avatars/players in the context of the game world.

In this section, then, I describe character creation and typical gameplay from my own point of view. It should be noted here that gameplay refers to the players' actions and motives (Aarseth, 2003). My own actions and motives in interacting with the game are described here, but in this research generally it is the result of gameplay as evidenced by the actions of the avatars in the game world that is being observed.

It is very possible that other player's experience of character creation is different than my own. Not only can their process be unlike my own, but also many players create multiple avatars and characters that portray a variety of dissimilar traits.

4.1.1 Character creation

Upon entering the game CoH, I was first presented with an interface screen asking me to select a server. I chose the Justice server primarily because it was at the top of the server list. I had no deliberate reason for choosing it, as I did not know how the servers in this game differed from one another. After some exploration in Justice and one other server (Liberty), I decided to stay with the Justice server because it seemed like a good social environment. Other servers include Victory, which is the unofficial role-play server. Players on that server are expected to stay in character at all times. Frequently players, like the one quoted below, choose servers in very random ways:

> Initally, when I entered (sic) the game, didn't know anything about the server-specific radio, or which one was the "roleplaying server," or which server had Global Heroics on it, (hint hint), so I, like I assume many others must also have done, chose solely based on the cool sounding names. That being said, I'm based on Infinity and Virtue. I'd agree the most popular is Freedom, probably because a large section of the playerbase was initially

> attracted to the whole superheroic assosciation of the words "Freedom and Justice," whereas not so many were interested in "Protector," for instance. Understand, I aint (sic) dissing Protector, but I have seemed to notice a general trend about the server popularity: The more abstract the noun in question, the more people it seems to attract. :) (Too crowded, not ranting or whining, 2005, post 18).

When I entered, I was presented with another screen asking me to create a character. Character creation in CoH is quite sophisticated and the attributes of the resulting avatar are important in terms of both information and play style when you have entered the game world. I choose not to read the manual before I created my avatar, choosing instead to follow the onscreen prompts during the creation. It was my experience that game players tend not to consult the manual before playing a game. They generally refer to the official documentation only when it is necessary to move forward in the game.

I personally wanted to create a character with which I had some traits in common and through which I could most readily participate and observe at the same time. As I noted in my personal journal at the time, “I also wanted an avatar I was very comfortable with playing, and ended up giving her many outward qualities in common with me.” One completely unplanned trait that she had in common with me was a compound name. I did not realize I had done this, and I was well into playing the game before I became aware of it. In fact, I was creating a presentation of myself to use in the virtual play space, and while Goffman (1959) contends that we do this every day to some extent, this creation seemed more akin to the development of a theatrical role than the type of impression control we practice in everyday life because of the types of restraints that will be

discussed later. Naturally there are restraints in everyday life, but the choices seem far more limited in the virtual play space, even one with such a multiplicity of choices as CoH.

Character creation in general is a time consuming, but enjoyable process. My process of character creation lasted about two hours, but for many people it seems to take more time. One game player told me in casual conversation that a friend of his had "literally spent hours getting his character exactly right in CoH."

There are several steps in the process of building a character. I had to decide such traits as gender, build, size and shape of specific parts of the body, colors, designs, costume elements and so forth. Because the manual (Emert & Miller, 2004) says, "A hero's identity is tied to their costume almost as much as their name" (p. 15). I designed a costume that I felt represented a comfortable avatar for me to use in the game. She is a sturdy female wearing primarily blue, the accents are Celtic designs. I could not imagine myself, even as a superhero, running through the world in a short skirt and scanty top, and so the costume is fairly modest and unassuming. As I noted in my field notes "I'd say mine [costume] is conservative without standing out as prudish."

Myriad combinations are available. Gender can be female, male or huge. A huge is a body type resembling the comic book character The Incredible Hulk. Costume elements and other elements of appearance include skin color, make-up, pointed ears, horns, tails, wings, various types of martial arts style robes, spiked shoulder plating, headgear, glasses, tights, numerous style of boots, belts and gloves among many others. There are numerous color combinations available and the player can either set two colors to coordinate, or color each element separately. The huge number of combinations makes

it unlikely that two avatars will look very alike, unless the player or players creating them intend them to look alike. One player describes the process of creating character appearance this way,

> Okay, now the easy part [choosing archetypes and powers] is over. Here comes the HARD part. Prepare to go SHOPPING! You get to dig through a metric ton of choices when it comes to your costume. There are three body types, male, female, and huge (male only, sorry, no lady Juggernauts). The neat thing is even the huge body type can be very short. …, my ice blaster robot, is only 4 foot tall, yet he's as wide as…an Ice Box (CoH Preview, 2004, para. 7).

Physical characteristics are only a part of character creation. I also had to decide on *archetype* and *origin* (see Appendices I & II for a list of choices). The seven available archetypes are classic superhero types, each with its choice of powers. Archetype does limit the choice in powers the player can select. Origin, which will be discussed later, refers to the source of the hero's super powers.

The manual says that, "Selecting an archetype, which will determine the powers you can wield in play, is the single most important decision you will make about your Hero. Make sure you select an archetype and power sets that harmonize well with your personality and playstyle" (Emert & Miller, 2004, p. 6). Deciding on an archetype was more difficult for me than creating the costume and personal appearance, because I wanted to be sure that I chose an archetype for my avatar that would allow me to stand back without standing out. I wanted to participate, but to be able to observe as well.

In the end I chose to play a controller of science origin. The controller is one of 7

possible archetypes and science is one of 5 possible origins. These characteristics can be brought together in any combination (see Appendix I and II for further information). This archetype seemed appropriate under the circumstances because they require teams. Also, the powers they have are important to teams, but can be used at a distance. One player described the archetype this way:

> Controllers are one of the two types that require teams (early on anyway) because they are so squishy (low on hit points). They do crowd control and with a strong controller, you don't even need a tank because the enemies will be frozen, confused, held or whatever. They have almost no hit points and should never focus on offense until later levels or when the crowd is firmly under control or they have the ability to summon pets. Controllers are great support characters and will often take teleport, resurrect, healing, or other team powers (The story of a casual gamer who played CoH, posted 7/26/05, archetype roles para. 5).

While the manual describes controllers in this way:

> The Controller specializes in manipulating the actions of foes, causing them to stand immobile in battle, or controlling their movements, or even turning them against their allies. This is perhaps the most challenging archetype to play, but potentially one of the most powerful. Controllers have very little defense against enemies not under their direct control. A Controller who wishes to adventure solo must do so with extreme caution. The archetype really contributes as part of a group (p. 7).

There are a number of other basic archetypes that can be chosen when a character is

created. All of the archetypes are intended to work together well in teams. In Appendix I there is a list of the other basic archetypes with descriptions from game creators and from user forums.

I referred above to having selected a science origin for my character. Origin refers to where an avatar's super powers derive from. The descriptions in Appendix II present parallels to some of the popular superheroes from comic books. While I selected it based on my personal background and early interest in the sciences, the origins presumably do have some effect on how the character evolves. "Heroes come from many places. Some are born to power, while others seek it out. There are even those who have no special abilities, who rely upon technology or their own skills to help them fight crime. While they are heroes one and all, origins have an important effect upon what kind of hero someone becomes" (Origins, 2004 on Up All Night Gaming, para. 1). However, one admittedly casual gamer remarked "One thing I was never able to find out was what difference it makes if your character is Mutation, Natural, Science, etc." (The story of a casual gamer that played CoH posted 7/26/05, creating your character, para.1).

The Wikipedia[5] entry on CoH it says about origins, "… the origin of a hero has little effect on gameplay. It determines which of five temporary powers they are granted (until level 10), who the player's early NPC contacts are, what type of enhancements they can use, and what titles they can choose from at level 25" (CoH characters, Origins, para. 1).

The game's makers describe the science origin in this way, "Exposure to chemicals, radiation or some other scientific process has left you changed, with new and

[5] Although wikipedia is often not considered an academic source, its open source nature in which anyone can update the entries makes it similar to the Web sites and forums also used for this research.

mysterious abilities far beyond the mass of humanity" (p. 5). In Wikipedia the science origin is explained thus, "Science heroes gained their powers as a result of scientific process, intentional or otherwise: e.g. Radiation exposure in a test lab. The Flash from DC and Spider-Man from Marvel are both examples"(para. 4). In Appendix II there is a table of hero origins with the definitions of game creators and those from the Wikipedia.

The manual informs players that, "Your final required choice in the character creation process is to give your character a unique name that reflects his powers, appearance or personality" (p. 16). The manual itself does not say much more about choosing a name other than suggest that it be relatively short and easy to spell. A short, easy name can be very important in an environment where most of the communication is in text form. Several Web sites suggested that a thesaurus might be useful in finding alternate words for character names. Another suggestion about creating names is to "choose something representing your hero and perhaps your own personality" (Choosing a Hero Name, para.1). I decided to name my avatar for my own outside world characteristics in combination with an element of my costume.

In the naming area the players can include nicknames, a full story if they like and anything else about the character that they wish to add, including a battle cry. As one writer on an unofficial Web site points out, "A little history and background will go a long way to helping you role-play your character" (M'Kari, n.d. How to role play a hero (101), History and background, para. 1).

Illustration 4.1 My original character, on the left "Thinkerose" later I had the opportunity to add a title and get a second costume (on the right), I became "The Watchful Thinkerose."

4.1.2 The historical context of Paragon City

Just at the players are encouraged to create background stories for themselves, the game provides an in-game historical background in which to set the play. Each mission is also contextualized by a background story.

A brief history of Paragon City follows. In 1931, a citizen of Paragon City returns to the city with the powers of an ancient god and calls himself Statesman. Since then, Paragon City has become the center of the super-powered hero universe, making Paragon City truly a City of Heroes.

That golden era ended on May 23, 2002, when the earth was invaded by aliens known as Rikti who were bent on mass extermination of everyone on the planet. No place saw more destruction than Paragon City. After months of fighting in which many human and hero lives were lost, the Rikti were stopped, but not completely defeated. In the end

only eight of the original Paragon City superheroes survived. While the total number of casualties is unknown they are estimated in the tens of thousands.

In the aftermath of the Rikti war, Paragon City, like many cities worldwide was in ruins. With most of the heroes gone, crime ran rampant. Gangs of criminals, some of whom had operated underground for decades, others new and horrifying, began to take control of the city's war-torn zones. From amid the lawlessness Statesman sent out a call to the world's surviving and new heroes: "Come to Paragon City's aid!" Heroes flocked to Paragon City to fight for freedom and justice, and make Paragon City once again a City of Heroes (CoH community site game info: game synopsis, 2004). It is against this backdrop that the play is set.

4.1.3 Getting started

Once the process of character or avatar creation was complete I entered the game in tutorial mode to gain some practice with playing the game. The tutorial allows the player to learn how to how to use her powers and how to interact with contacts, and other aspects of the game, such as inspirations and enhancements. The tutorial also familiarizes the player with the combinations of key strokes, mouse movements and on-screen interface required to interact in the virtual play space. I was required in the tutorial to perform a couple of sample missions including a few missions that required entry into "hot zones" or areas of the game that are later referred to as "security zones" or "hazard zones." Once these were completed I was ready to enter the world of Paragon City for real play sessions. The learning environment in the tutorial was highly experiential.

A typical play session for me lasted anywhere from an hour to approximately four

hours, and many days I participated in more than one play session. Rather than recounting any specific play session here, I will provide a description of what I would consider important elements in an average or typical session.

Game sessions are very different as the player becomes more proficient and "levels up." Leveling up is described in this way:

> Every mob close to your level that you fight yields experience points. Experience bonuses are also awarded for each mission completed. When your character obtains enough experience for the next level (this can be tracked on the interface) you may go to a trainer to gain new powers or enhancement slots for your current powers. Trainers are available in most lower-level zones. Also upon leveling you may receive additional inventory slots for inspirations or the option to choose a title for your character, which can be seen by other players above your character name (ex. The Remarkable Bob). These become available at specified levels (Game play, 2006, leveling).

Below is a description of a representative session (although elements are drawn from a number of sessions played around the same time) when I was about halfway to my final security level of 26. Security levels, often just called levels are achieved by accumulating a preset number of experience points (XP), which differs from level to level and is awarded by the game for individual and team defeat of enemies and for the completion of missions.

Not only do security levels describe a level of either time or proficiency in the game, they also allow access to particular areas of the virtual play space. If a hero who

has not yet achieved a certain status tries to enter an area restricted to a higher security level, he is turned away by the guards and told to get more experience before he returns. Level 26 is not a particularly high level, but by the time I had achieved this level it I had reached category saturation about information and play elements. My experiences were well established and my field notes were becoming somewhat repetitive. At this point at had passed, or was passing the point of the flow experience. There was still a challenge, and I still had the ability to meet it, but I was less immersed in the virtual play space and my observation of it.

By the time I had reached this level I always had one or more quests or missions that had been given me by the non-player characters called contacts in the game. So, initially, I would review my missions to see which of them I might want to perform. Generally, I started out on my own but used the game function that allowed other players to know that I was looking for a team. There are places for the player to enter the information about what kind of mission she would like to take on with a team. I often also made use of one of the chat functions called global chat to broadcast my archetype and level with the abbreviation lft (looking for team). This was a standard way of finding team members. If one chose to lead a team there was also a screen available to see who was online and to ask them directly to join a team. This was accomplished either by clicking through interface screens to see who was in the game, what their archetype, level, and so on were. Finally, when a potential teammate was discovered he or she could be invited to a team by way of clicking an invite button. This action caused the message "'Player name' has invited you to join a team" to be displayed on the other's player's screen, and he or she was given buttons to make the choice to accept or not accept the

team. Alternately, a team leader could issue a “tell” which is a private message and ask the player about his or her interest in teaming. If the player assented, the leader could either use the same invite system explained above, or she could use a textual shortcut to accomplish the same purpose.

Then I would head toward the mission I had chosen for myself and work on it until either I completed the mission, was defeated, or found a team. Missions included things like “defeating” or ”arresting” a preset number of a certain kind of villain or entering buildings, caverns, forests, etc. to find a clue, disarm bombs, rescue hostages and all manner of other adventure. I will use as an example of my typical play session some of the missions that take place in an area of the “City” called “The Hollows.” This play session is actually a composite of several play sessions, rather than a specific one. I chose this method of showing a play session in order to present a typical play experience, rather than a very narrow slice of a single session.

4.1.4 A composite play session

I have entered the game and am headed to a mission in The Hollows. I set up my system to let others know that I am interested in a team. The session begins in Atlas Park, one of the areas of the game that is still considered Paragon-controlled territory, as opposed to the hazardous security zone where the mission is. It is in the central area of Atlas Park near the feet of the gigantic statue of Atlas that heroes gather for costume contests, beauty pageants, dance parties (See illustration 4.3) and other social occasions. It is common to see heroes of all types and descriptions there any time day or night. Atlas Park is very unlike some of the hazard zones created by the game makers, which are dark

and menacing places.

Atlas Park is a clean and friendly place with buildings, billboards, good roads and tree-lined sidewalks. Some of the billboards remind us of the plight of earth, for example, on the side of one building is a patriotic billboard with a generic hero standing in front of what appears to be an American flag. The slogan on the billboard is "Earth for the Humans, Let's Keep it That Way." Many such details have been added by the game's makers to instill a sense of reality. Some of the billboards are more mundane, an advertisement for a theatrical production, for instance. Along the broad avenues of Atlas Park there is every appearance of a normal business day in progress when the sun is up, and it is relatively relaxed when it is evening in Atlas Park. There are a lot of affable pedestrians who wave at the heroes as they pass. They are dressed as doctors, nurses, tourists in Hawaiian shirts, construction workers, business and government workers, and other citizens. If a player clicks on one of them, the game will show his or her name. Among the stores and restaurants in Atlas Park, there are businesses with humorous names with playful references to the world outside the game, such as the "In Front Steakhouse" or the play on words "City of Gyros Sandwiches." There are also others with more ordinary names like "Paragon Pizza."

4.1.5 Playing solo

Although Atlas Park is clean and appears safe, it does not mean that there are no villains present. It is not uncommon to encounter Hellions (thugs), or even the occasional Vazhilok (zombie) or Clockwork (robot) (see Appendix III for descriptions and screenshots of a variety of enemies). Hellions are the main force in Atlas Park proper.

They are essentially a human street gang, who make their money mugging ordinary citizens and selling a street drug called Dyne. The members are both black and white, often wear bandanas over their faces like the bad guys in the old Hollywood westerns, and invariably have large tattoos on their upper arms and biceps. They are dressed in torn up jeans and vests that show off those tattoos. Like the Hellions, many of the villain groups appear human, but there are also non-human groups like the Trolls, Vampyri, and Vahzilok.

On the way I encounter a small group of Hellions. These thugs are trying to snatch a citizen's purse; she is resisting and calling for help. The bad guys have generic names that describe their function in the gang. Only the most important bosses have names, as such. A character called generically "blood brother slicer" wields a knife menacingly at the citizen. Each Hellion is also assigned a level and a title. These are discovered by targeting or clicking on an individual thug. It is possible to determine the level of these villains when I click on them in target mode because there is a color-coded bar that appears to tell me whether I should be able to defeat them on my own, or whether I will need friends. These bars are just one piece of meta-data attached to the non-player characters. The group threatening this woman consists of only three Hellions, and it is well within my capabilities to defeat them. Although players talk among themselves about killing the bad guys, the game uses terms like "defeat" or "arrest."

My powers are not particularly suited to solo play, but if used judiciously they can function well enough for me to succeed. My powers are primarily "empathic" and by the time I make the decision to save this citizen, I possess distance powers such as "confusion" (my personal favorite), "dominate", "mesmerize" and "healing aura", among

others, as well as close in powers like “box.” Also I have a generic “sprint” power to use if I need to get somewhere fast, or run away from a fight. As the game progresses a hero can earn more powers, so later in the game I will add more. On this group I use a tactic that is one of my best and most practiced. Bad guys are not aware of heroes until they are within close proximity. Therefore, I can sneak up and use the confuse power on one of them, in this case a “slicer.” The confuse power makes him turn his knife on the others in his gang instead of the citizen I am rescuing. Meanwhile, I mesmerize another of them, stopping him in his tracks and making him an easy target for his confused friend. I then use “dominate” on the third of the group. Dominate also stops a villain in his tracks, and I tend to use it interchangeably with mesmerize. I then move in with a close in attack on one of the first of the incapacitated ones. Because Hellions are not high-level villains he is soon dispatched. The other has been badly weakened by his confused comrade, who now comes out of his confused state and begins to attack me. All the while the citizen is standing by watching the fight. I have to turn and mesmerize the formerly confused Hellion slicer and finish the other remaining villain who is now awake. I continue to use dominate and mesmerize on him until he is defeated. I was a bit surprised at first that I could defeat a bad guy by mesmerizing him repeatedly, but it works. Finally, I use a combination of mesmerize and box to dispatch the final Hellion. Each use of a power comes with its own sound effects, the fairly realistic sounds of fists connecting in a fistfight for box, and a sort of “zing” sound for the empathic powers. Before the citizen leaves the scene she tells me, by way of a comic book bubble over her head, “I’m glad you came along!” Most of the hero communications are also expressed in comic book bubbles, there are even ways to create a “thought bubble” like the ones that appear in

comic books. Heroes, baddies and citizens all communicate through these bubbles.

Typical phrases for baddies are things like "Here comes a cape!" Usually followed by something like "we will not be defeated." When I defeat the bad guys the citizen will thank me with phrases like, "I'm glad you came along" or "I never met a real hero before."

When there are villains nearby, or what are often called "baddies," pedestrians will turn and run. Even the cops on the beat run at the sight of "baddies." This non-player character (NPC) behavior offers me a clue about places I might either go to take on a few baddies and gain various rewards, such as experience, influence and insights, or alternatively places I might want to avoid if I am trying to get to a mission unscathed. I took on the earlier challenge to warm up for what I assume will be a more challenging mission.

4.1.6 Soloing in a hazard zone

The entrance to the Hollows is heavily guarded, and I was not allowed to enter until I had achieved security level 5. It is possible then to assume that any hero I encounter in The Hollows is at least level 5. There are guards and barbed wire at the entrance to the Hollows. Other hazard zones require even higher levels, or what are called in-game security clearances, to enter. Once I am inside the Hollows it is immediately obvious that I have left the relative safety of Atlas Park for something altogether different. There are police barricades just inside the entrance and the sounds of gunfire everywhere. Numerous heroes are congregated just inside the gate, behind the police barricades. Generally, they are waiting there for other members of their teams to arrive so that they

can proceed en masse to a mission. Many heroes use this tactic, rather than traveling to a mission separately and meeting there, because the Hollows is a dangerous place and there is strength in numbers. It is also possible for players to gather more experience (xp) and influence as well as other rewards if there is a fight along the way.

Just as every area in the game does, The Hollows has a background story that gives a brief history of the place and hints at what kind of missions and heroes can be found there. The manual gives this background for The Hollows:

> This Hazard zone is an outlet of Eastgate Bay in Paragon City. After the Rikti war, this section of the city was sealed off to normal traffic, which made it a haven for criminals such as the Trolls and the Outcasts. In recent months, the city has granted limited access to the zone for Heroes of the appropriate Security Level (5 and up) in an effort to retake it from the villain groups that now inhabit it. The deeper into the Hollows you go, the tougher the gangs can be, and the extensive cave networks in the area are rumored to lead to an underground city controlled by the Circle of Thorns (p. 164).

Further information about the specific areas and missions is given by various contacts in the area.

Illustration 4.? My avatar interacting with a contact who is providing a mission.

Now that I am in The Hollows, it is obvious why it is a security zone. The buildings look run down and/or bombed out. There are beautiful park-like green fields as I leave the built up area, but they are populated by baddies and it is common to jump into an ambush. There is a brick wall that runs around some of the parkland, and finding an entry way is not always easy. So instead of looking for an entrance, I jump the wall landing squarely into a pack of trolls. This pack is much larger and higher level than the group of Hellions I fought 5 minutes ago. Trolls are green creatures with small horns. They are dressed in t-shirts with brown jackets and pants and high lace up military-style boots. Many of them are makers and users of the drug Dyne that makes them very strong and very angry. There are perhaps a dozen of them in this pack, but, because I jumped right into

the middle of the ambush and became entangled in a melee, I never really have a chance to count them. I try to confuse one, but that is a much easier proposition when the player is able to sneak up and catch them by surprise. I am defeated in short order, and a screen pops and tells me to either click on it to go to the hospital, or wait where I am to have another hero revive me.

Heroes cannot be killed, only temporarily defeated "After all, " as I say in my field notes, "only kryptonite can kill Superman, and in the comic books it never really does." Since I am not on a team, cannot use my healing aura when I am defeated and do not have any awaken inspirations (see Glossary for a definition of inspirations) to use to revive myself, and I do not know how long it might take for a hero with the appropriate healing powers to come and rescue me, when the window pops open to ask if I want to go to the hospital or wait, I click on the 'go to hospital' button. This action transports me automatically to the nearest hospital.

4.1.7 To the hospital and back to the Hollows

The hospital is filled with healing booths that restore heroes to full strength. The hospital is a safe zone, there are no baddies here, so it is a good place to check enhancements and upgrade powers. Enhancements are another kind of reward earned in fights with villains; these are used to upgrade powers. There are many ways to make use of enhancements and players have the choice as to how they want to use them, what powers to enhance and the like. The player can collect up to six unused enhancements in battle, after that you no longer can earn

them unless some slots are freed (places for unused enhancements) by applying the enhancements to particular powers or discarding or selling them. There are many rules about which enhancements can be used with particular powers. Also origin determines whether the player can use particular enhancements. One of the upgrades in reaching a new level is often the awarding of additional enhancement slots that the player may apply to any power she wishes, allowing her to enhance that power further. Upgrading enhancements while I am in the hospital is my own tactic. Other heroes choose to do it on the fly or the time in a mission in which the team is resting or waiting for something. I am always afraid of being caught off guard in that situation.

The hospital is also populated with hospital personnel having medical conversations. The cartoon bubbles coming from the doctors, nurses and other hospital staff say things like, ”Yes, I agree, surgery is called for,” and more humorous, though still quasi-medical “I concur, this calls for aggressive caution.” They have even included an old joke, by having a patient saying, “Whoa, you mean I shouldn’t move it like this?”

This hospital is in Atlas Park, leaving me to make the trek to the Hollows again. After much practice I know many routes to the Hollows, and this time I choose the most direct one, hoping to avoid the Hellions. It feels a little un-hero-like when I leave a citizen in need, but as I moved up in levels, I got less and less experience points and influence from fighting low-level baddies, and even though I began playing more to observe than to level up, it became necessary to pass some of these situations to save time in getting to the missions and places where I

can observe higher level heroes. It was also at this point that I became aware that, at least sometimes, I was entering into the values of the virtual play space myself. This allowed me to reflect on the experience from the point of view of the player, as well as the observer.

On my way to the Hollows, however, I see a newbie fighting off four Hellions and having a very rough time of it. I ask if he needs help and he says "ty" which is shorthand for "thank you" and probably all he can get typed in the short time he has during the fight. So, I mesmerize one of the bad guys, dominate another and heal the newbie with a "heal other" power that I acquired in a recent level up. Then I stand by to see how he does. When the fight is over, he thanks me again. I made the choice not to actually defeat any villains for him, just to slow them down, as he will acquire more points that way. It is polite to ask if someone wants help before charging in, because you will gain points and the other player will not get the benefit of engaging in the fight. The newbie thanks me again and I reply "np" or no problem, and go on my way.

Higher level players, particularly those whose interest is to gain as much experience as possible in as short a time as possible in order to reach higher security level, refer to this jumping in as "stealing kills" and they resent it very much if you finish off an enemy for them. These players are often referred to as hard-core. Players learn about the concept of stealing kills either by making the mistake and being told, or by the occasional comments in the global chat window bemoaning the fact that some newbie, or perhaps just someone "clueless," has been stealing kills. I luckily saw some high level players in chat complaining

about the experience and influence they were losing to this kind of behavior on the part of other players, and therefore, I never personally made the mistake of helping without asking. This is a part of the in-game etiquette that does not seem to appear in any of the official documentation.

In passing through the Hollows, or any zone for that matter, there is music that marks the passage through the respective neighborhoods. The music tends to be something with a driving beat and it fades out, as the hero gets further into the neighborhood. In the Hollows, for instance, there are neighborhoods such as Cherry Hills and Eastgate Heights. The contacts who assign the missions often, but not always, give the hero a general location of the mission by neighborhood.

This time I am able to get across the fields, and as I reach the edge of the area where my mission is there are places where the ground has collapsed into the caverns that are, according to the back-story, both natural and "troll-made." There are places where there are wide chasms for an unsuspecting hero to fall into. These are populated by "igneous" (a particularly nasty kind of "baddie" that appears to be made of hot lava) creatures and are difficult to escape. Falling into one of the collapsed caverns is a trap to be avoided at all costs, and I use great care to get around the crevasses.

4.1.8 Composite play session continues with a team

Just as I am in sight of my mission, I receive a contact from a team leader who is looking for an extra body for the team and believes that a controller will fit in nicely with his game plan. Just then I am approached by a small group of trolls

and must defeat them before I join my team. At one such moment in my field notes I said, " [player] has invited me to join a team so I guess I will, I'll just get myself out of here first…I've changed what I am doing since I joined a team and they took on a different mission, so I am taking on my team's mission. That's what you do when you are on a team." The team leader is usually the one who has formed the team, although she can pass the role of leader to any member of the team. The leader selects a mission for the team, choosing from any of the missions available to any team member. She may also choose to have the team just go hunting, which means roaming the countryside together and defeating baddies along the way for various points and rewards.

The first thing I do once I have joined a team is to determine where they all are, and where the mission is. Because leaders can ask across distance, even across zones, it is necessary to locate the team. Fortunately, this mission is in the Hollows and not far from where I already am. The map function allows me to find the mission and the team with relative ease, since when I am in the same zone I can open the map and see my teammates as moving arrows on the map. The map is a great tool and one I use often, but it also takes up a lot of screen space and can get in the way when the fighting starts. There are three ways, in fact, to find a team mission; the first is to follow teammates who are visible on the screen. The second is to use the map to locate teammates, who show up as dynamic green arrows that the player can follow. The team only shows up on the map if a player is in the same zone with them. And third, there is a list of missions that can be opened through a series of clicks. The player can click on the mission selected by

the leader and a small red arrow appears on the screen guiding the player in the general direction of the mission and indicating distance to the mission. Each method has strengths and weaknesses.

The team, all except myself and one other, has gathered at the mission area. Often times either through lack of speed upgrades, poor hand-eye coordination, or bad directional sense, I get separated from the rest of my team and often caught up in an ambush. I tend to have this problem whether I have team members in my sight and they are too fast for me or whether I am following them on the map. Thankfully a good team watches out for its own, and as in this typical session captured in field notes, "I went looking for my group as I felt like I had lost them and, ah, but fortunately when they saw I was in trouble they came and got me." Or as in this case, one of the teammates comes to rescue me. As is usual for me, I find myself in trouble once again. The teammate returns and shares his own knowledge telling me "Run the walls, run the walls and don't look for trouble." This phrase became my mantra until I became somewhat more proficient at either fighting or outrunning an ambush. Once I've been rescued again, the decision is made, much to my relief that we should travel together.

We find everyone standing outside the door of the mission waiting for one other player to arrive. There is often a great deal of waiting around once the teaming begins. While at first I found these times a bit boring, I later discovered that this is when much of the social activity takes place. In this case we are waiting for a player, sometimes we are hiding from baddies while we wait for everyone to regain some strength.

Our current team is composed of avatars of the following archetypes (see Appendix I for information about each type): warshade, a specialized archetype that can only be used if the player has reached level 50 with a previous character (this makes warshades relatively rare); tanker, a defensive archetype able to absorb a lot of damage and protect weaker heroes; scrapper, an archetype whose strength is hand-to-hand combat: and controller, an archetype specializing in ranged attacks that slow enemies for the others to fight, they also perform other support roles.

Fortunately there are things to do while we wait. One of the players, a small female warshade dressed in a school-girl outfit complete with a plaid skirt and knee socks (called here "kiddo")[6], reads a newspaper; our team leader, a very large male tanker wearing scarlet tights with bright yellow markings and spiked shoulder pads ("red"), does calisthenics to warm up for the mission; and the scrapper a medium male in an outfit reminiscent of standard military fatigues ("scrappy"), gets out a boom box and cycles through some music until he finds what he wants. I dance to the music on the boom box. All of these actions, and many others are available from the "emotes" menu and can be performed by key combinations, or by opening the menu and clicking on it. Emotes are essentially stylized ways of acting that are automatic when put into motion. While these emotes have no function in advancing the game play or the storyline, they can serve as a way to bring the team together through off task comments and humor. One of my fellow players informs me that I am "looking good," another asks the

[6] All names and many of the characteristics of the players were changed to maintain anonymity.

kiddo if there is any thing important in the newspaper, to which she replies, “same old, same old.” I tell red to “cool the exercise and save some of that energy for the mission,” he tells me to “look who’s talking.”

There are also other heroes in the vicinity moving in and out of the mission. Although they are there it does not affect the level of our mission or the number of bad guys we will encounter. We will also not see members of that other team in the mission spaces. At this point, the missions become like parallel universes with the actions of one team having no effect on the actions or mission of the other.

Our fifth and final comrade, a busty female controller (“blackie”) in very seductive black attire that shows lots of skin, has arrived and I take a moment before we enter the mission to determine with whom I am playing. Names, physical characteristics and costumes give an initial impression. I have also gained other impressions of the first three of my teammates through our exchanges outside the mission door. Beyond that I have discovered that I can click on any member of my team and find out what archetype he or she is and what level. Archetype is important because it gives a clue to play style and how to interact with the rest of the team. For instance, while I possess modest healing powers, if there is a defender on the team he or she is likely to have greater healing ability leaving me to concentrate on my control powers like mesmerize and dominate. This team has two controllers, but no defender; we also have a warshade, a tanker and a scrapper. This tells me that my role will be equally healing and slowing the enemy. These duties can be shared with the other controller. It would be especially nice if she has healing powers, since mine are

not particularly strong. The tanker and the scrapper are close-in fighters and may require considerable healing.

The level of the team has an effect on the difficulty of the mission. For this reason, I always check the level and archetypes of my team. In my notes I comment on my preference "But I definitely think that equivalent or roughly equivalent level will produce better teaming."

In each case the leader decides the mission we will do. The leader is generally the player who has put together the team. A potential team leader can gather his players in a couple of ways. He may choose to invite people he already knows, or he may recruit by asking in global for avatars of a certain archetype and level to join him, or he can view a list of available players and ask any of them. He may or may not converse with a potential teammate before he issues his invitation. When an invitation is issued, a pop-up window appears saying, "red (or whatever the leader's name is) has invited you to join a team." You can then click a button to accept or reject the invitation. The leader's rank is indicated on the team list, which appears with the chat window, by a yellow star next to his name. If he leaves while the team is still otherwise intact, the star goes to the next player on the list. The star can also be passed from the leader to another player if someone else wants to take the lead or the leader is tired and wants to give it away. The leader must choose to pass the star if someone else is to lead while he is still on the team; otherwise it remains with the original leader. Clicking on the new leader's name in the team list and selecting 'promote' from a pop-up window accomplishes the transfer. At this point the new leader's name appears with the

star.

Once we have reached the mission, the current leader, “red” decides, that we need more fire power and another healer. So, we wait some more until he can find someone. His decision to look for other members for our team gives us even more wait time, in this case waiting for the leader to be ready. He is unsuccessful in filling out the team further, and so tells us that we controllers have to slow the trolls we will be fighting, and try to keep up with the healing. This is an order that is not hard to take because I have already anticipated the order. Since controller powers tend more toward the manipulation of the enemy in order to allow the stronger types to get closer to the enemies, and controllers have generally weaker healing powers than a defender would, it makes sense that when no defender is available, two controllers will work in tandem to keep their teammates from being sent to the hospital. Occasionally, on a smaller team, especially one that is made up predominantly of controllers and defenders, the leader has surprised me by asking me to jump into the fray, but the current case is much more usual, and suits me better. It is a more comfortable use of my powers, not to mention that it allows me to observe more easily.

Once the leader is convinced that the team is ready to go we enter the mission, in this case entering a cavern to disarm bombs so that there will not be a further collapse and defeat a troop of trolls and some Outcasts who are trying to drive out the trolls. The Outcasts are essentially another kind of thug but with some unusual super-human types of power. The cavern, like the other areas I have already passed through, gives a sense of reality: it is gloomy, lit only by the

occasional light source along the wall. It is full of twisted passages and blind alleys. In my field notes I comment on the seeming reality of the experience, "There really is a sense of running down into a cavern, the more you play the more it seems like this becomes a 'real' place. It's obviously not the same as your real life so to speak, but someplace you go on a trip…it is interesting to be there."

In the best missions there is a strong team leader who communicates well with the team. For this reason it is important to pay attention to what is being said in team chat. As one player observes, "There are times you will want to kick back and just chat about things, but for the most part, you should be paying attention to what your team is saying [during a mission]" (The story of a casual gamer who played Coho, posted 7/26/05, Team Etiquette, Para. 4). Our team leader is a communicative leader and he has assigned various tasks to each of us and keeps in contact between melees by text chatting in a special team chat area. Once a team is formed, a team chat channel is made available and this is how the team keeps in contact.

The bombs we are trying to disarm will not be easy to find, but when we are close we will hear a distinct pulsing sound, and when they are in sight we will see them flash or blink. All of the clues and artifacts that are assigned as objects to be found or destroyed in a mission have the characteristic of blinking or pulsing to lead players to them. For this reason such articles are referred to as "blinkers." We were also told as we entered the mission that we could hear the howls of the trolls echoing off the cavern walls. We can tell when we get closer to a group of trolls because the howls become louder.

Almost right away we encounter the telltale pulsing sound and know that we are near the first bomb. Unfortunately, it is guarded by a troop of very angry trolls, along

with a few outcasts. The leader calls out "Rdy?" (ready?), and each of us in turn replies that we are ready. It is time to enter the fray. There is a lot of confusion and almost too much to look at and do during melee. There is also a cacophony of sound, howls and grunts from the trolls, the sounds of fistfights, and of empathic powers being used. "Blackie" and I are using our powers to slow the enemy and heal our comrades. "Scrappy is in the midst of the fistfights and "red" is wading in and defeating enemies while they are disabled. He can also absorb a lot of damage during the times when the enemies are not disabled. All of the team members share in the rewards of any teammate's defeat of an enemy. And the game tells us in the chat space when we have received xp, influence or debt reduction (you can lose xp and go into debt through defeats) and on the main screen briefly when you get enhancements or inspirations. There are also sounds that go with receiving these rewards. It is fully engaging, and while I am in it I find my heart pounding (me personally, not my avatar). I know from conversations with people who play in a variety of virtual play spaces that this reaction is not unusual. I will also be breathless when the fight is over.

My character's powers are primarily crowd control functions and team support, so I hang back and watch what my team needs in the way of support. The ability to hang back and still participate, at least nominally, also allows me to see what is happening in general. As our scrapper and tanker charge into the fray and the warshade does all manner of unusual things, I mesmerize or dominate the enemies one at a time (or later when I have greater powers, in a group). This slows the baddies and allows the other members of the team to defeat them. Kiddo, the warshade converts herself to something resembling a flying squid. Warshades (sometimes referred to by players as flying squiddy

blasters), I later discover, are players who reach level 50 and have a choice of selecting this archetype. If they do, they start again at a lower level, but, since they have reached the higher level once, you can be reasonably sure they have good game skills.

I explain my role in my field notes this way. "I try to hang back a little bit and daze them to help my 'peeps' [people]…I basically use the ones [powers] that mesmerize and dominate and I have the healing stuff. That's another reason I hang back a bit because then if I see one of my guys is getting really low on health I can heal him so he can keep fighting." This melee gets out of hand, there are more trolls than we can easily take on, and I cannot keep up with the healing and support functions assigned to me. I find myself defeated and lying on the cavern floor, where I can see the fight going on around me, but cannot help. I see the leader of the team make it to the bomb and click on it to disarm it. There is a power bar that shows the strength of the bomb going down, but until it is completely disarmed the leader cannot do anything. The other controller is struggling to keep him from being defeated until the bomb is disarmed.

Meanwhile I am defeated, and the choice box to either go to the hospital for healing or wait for resurrection has appeared on the screen. The hospital is virtually the only way to be healed when a player is playing on his or her own. In teams there are other choices. In such a situation I said in my field notes, "I've asked if anyone has resurrection which is another one of the powers that some of the heroes have where they can resurrect their fallen teammates…. I used to just go [to the hospital] immediately out of habit from playing on my own. But I've found when working on teams it is better to wait until the melee is over and then see if somebody has resurrection or an awaken, which is one of the inspirations they can actually give you." No one on this team has the resurrect power,

but the warshade offers me an awaken and gives it to me through the trading interface. Had my inspirations been full, I would have had to either trade or get rid of one of them. In this case, however, I have an open slot and as soon as the awaken shows up there, I use it. Awaken, unlike resurrect that brings would have brought me back at full power, allows me to get up again, but I am momentarily stunned and stagger around like you have had a drink or two too many. Or as one teammate put it in the chat screen, "You look like you've been into the margaritas!" During this period my teammates stay nearby to defeat any stray baddies, because when I am still in this state that looks like a drunken stupor, I cannot defend myself. Once I am recharged, our blaster asks if anyone has any catch a breath inspirations by inquiring if anyone has some blues. The icon for this particular inspiration is blue and catch a breath inspirations are often referred to in this way. These blues allow a player to replace endurance on the fly. I seem always to have an overabundance of them, and I give him two of mine. Then the question is asked once again, "Rdy?" but one of our team says," Wait a sec, phone" which means that he is on the phone in the outside world and wants us to wait for him. So again we wait, we talk a bit and joke around.

4.1.9 A consequence of an intended action

In a few minutes he says "back," and the leader again asks if we are ready. This time the replies are in the affirmative. The other two bombs are disarmed in a way similar to the first, except that I am able to avoid defeat. Now the only part of the mission left is to defeat the rest of the gang in this cavern. We go exploring through the caverns meeting only a stray villain here and there until we reach a large room, presumably a storage

room, since there are many crates there. In this large room there is a very large group of trolls on the left and another on the right. Ideally, we will engage the groups singly. Unfortunately, I attempt to make a quip to another hero, but I am not clicked on the chat screen. There is an "r" in my quip, and the "r" key, when you are in the main screen tells your character to "auto-run." As a consequence my character goes plowing through enemies on the left and on the right, alerting them all to our presence.

The leader asks what the heck I am doing, we do not want to "aggro" (aggravate) all of them. Once I am behind my team again and fighting the baddies I have accidentally aggravated, I tell them between shots that I am sorry I accidentally hit the "r." One of them, I do not know who, in the midst of the melee, says "'sok, it happens." After what seems an hour, but is probably only about 3 minutes, we manage, with great difficulty to fight off the trolls and we get a "mission complete" box on the screen that allows us to exit the mission without having to run all the way back to the entrance.

4.1.10 End of the mission

Players make some exclamations such as "whew, that was tough!" "congrats!" or simply "woot!" Once outside the mission the leader says he has to leave, as does the warshade. The rest of us decide to disband the team, but everyone thanks his or her teammates. If others had more time, the leader might well have chosen another mission for us to engage in together. I click the leave button on the team screen and end my session. It is important to observe the etiquette involved in leaving the team. Except in extreme cases, a player does not quit the team without warning. It is also generally considered bad form to leave mid-mission, although it sometimes has to be done. In a

case like this play session once we have had a brief discussion and agreed to disband, everyone leaves the team.

During one play session teams may form and reform many times so that I might play on two or three different teams during one session. Once I have finished a mission, I might do another mission with the same team, or we might divide and play alone or enter into groups with completely different players. I may then end up with another team doing the same mission I just completed, but even when the mission is in the same location, it can be very different in character due to the levels and other attributes of the team members. Finally, when I log off from the play session. Any mission that I had on my list that was not accomplished remains there for the next play session.

Illustration 4.1— Screenshot of a battle scene in CoH. Taken May 2006.

4.2 Everyday Life Information Seeking as Related to CoH

Just as in everyday life, players in CoH must retrieve information in order to solve problems or make sense of situations. It occurred to me as I played that much of what I was doing in terms of finding useful information could be described by McKenzie's (2002) model. What follows is her model and a brief description of her modes of information seeking and how I specifically connected to and interacted with appropriate information using them.

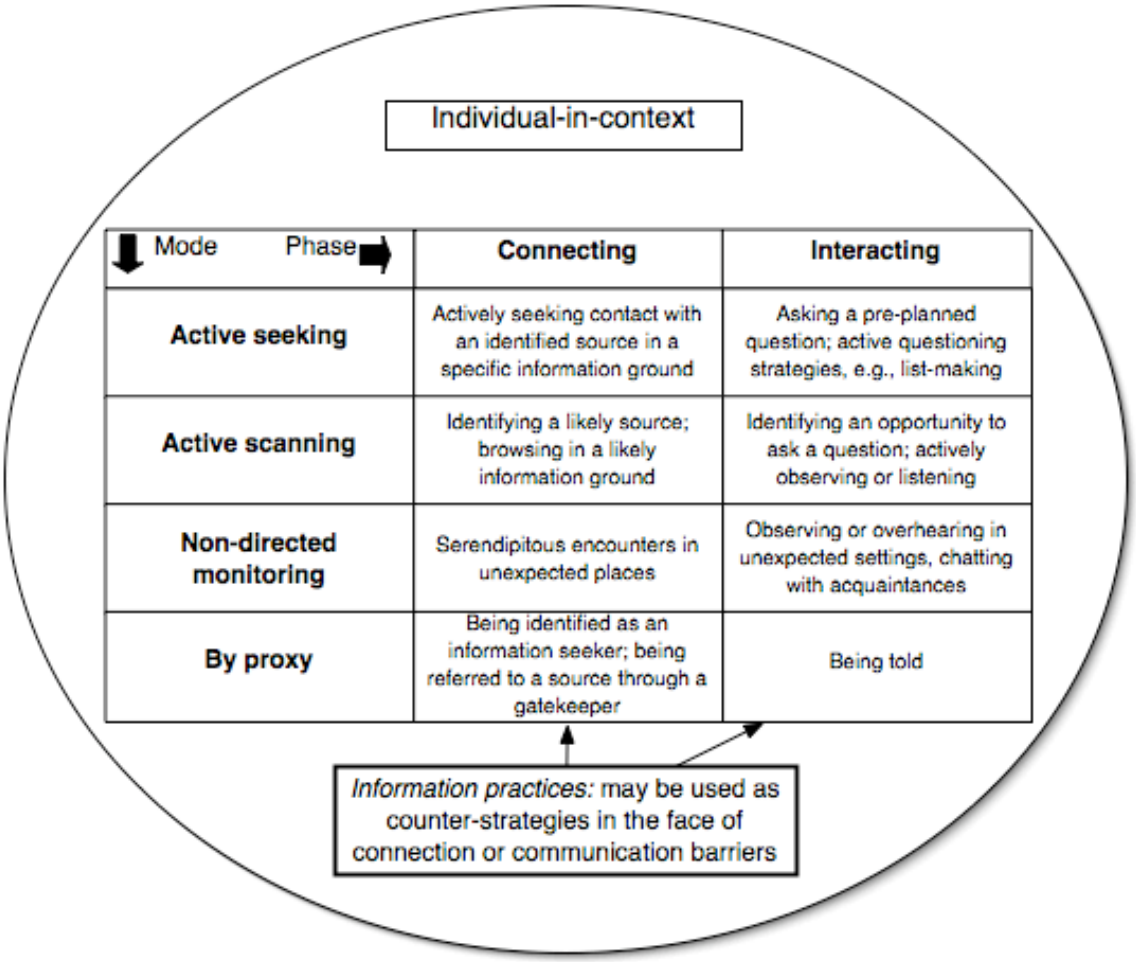


Figure 4.1 is MacKenzie's (2002) two dimensional model of the information practices of participants.

The most directed mode of information seeking is called active seeking. In this mode the person (or player in this case) seeks out an identified source in order to get answers to specific questions. An example of this type of information seeking in CoH is going to the manual for information. Players, however, generally search actively in formal sources as a last resort, tending instead to rely on other information practices. Other avenues for active seeking are, for example, logging into the official game forums and asking a question of someone who knows. Players also do active seeking in ways that are observable in avatar actions. For instance, an avatar may approach a trainer (an NPC that you report to when you have enough points to become a higher level) to find out specific information about the game.

The second mode, active scanning, involves locating a likely source or browsing in a place likely to have pertinent information. In connecting with information in this case someone might identify a chance to ask a question, or observe by watching and listening. I sometimes went to the official and unofficial Web pages to see what was being said or what was new in a forum or column there. It was in this way that I first discovered a wonderful forum post called "The story of a casual gamer who played CoH" (posted 7/26/05) which offered a wealth of information about character building, teaming and much more from the point of view of a player. It became a source I referred to regularly. Another form of active scanning observed in avatar actions in CoH scanning the environment, being alert for cues and clues. For instance, the blinking and pulsing of important objects and the sounds of the enemies are signs to be looked for, and the information they provide is very important to reaching the goals in the game. The pulsing

sounds are only evident when an avatar is within a certain pre-determined proximity of the object; so active scanning for the sounds and blinking are necessary.

Non-directed monitoring, the third mode, can be compared to serendipitous discovery, encountering or recognizing a source. Much of my understanding about the interface was discovered in this way. Some examples are finding out, as I did that the "r" key was auto-run by accidental use of it, closing and opening various elements of the interface, targeting villains and heroes and even learning exactly what the powers did were all pieces of important information to be encountered and remembered during the play of the game. Particularly in the case of the 'r' key incident, not only did I discover an important piece of information, but also the fact that I had done so was quite evident in the actions of my avatar on the screen. Many of the discoveries that I made through non-directed monitoring were actually available in the manual, but since I wanted to play the game as a more or less typical gamer might, I did not read the manual closely until after some of these discoveries had been made.

The final mode of information practice is having someone else who identifies a person as being in need of information, offer unsolicited advice or refer that person to a source. MacKenzie (2002) calls this mode, information seeking by proxy. I would liken this way of getting appropriate information to the information I got from the contacts and trainers in the game. These are NPCs that are built in by the game makers primarily to give the players information. While these characters are sometimes sought out particularly to gain information, as was mentioned in active scanning, often they give bits of information to the character that she was not even aware were important. For example, contacts provide information about the stories behind the missions, the characteristics of

a particular group of baddies, where to find the mission, whether you are likely to need a team to perform a particular mission and so on.

4.3 Some Aspects of Play and Information Behavior in CoH

As can be seen in chapter one, I initially expected to approach CoH as a separate culture. I expected that I would find it immersive enough to be studied in this way and that peer culture would be a more important part than it seemed to be in this particular virtual play space. This is not to say that the concept of teaming or building peer cultures was unimportant, but it seemed that temporary teams lasting a few hours told much more of the story of information behavior and play than the Supergroups did. These temporary teams will be discussed throughout this chapter.

4.3.1 Peer cultures, Supergroups and Temporary Teams in City of Heroes

There are, in effect, two levels of peer culture regarding these games or play spaces. One level is the guild or Supergroup built within the virtual play space. The other is one that exists outside the game, in which players of the same game, when they happen to meet, can easily bond by discussing how they solved puzzles or their particular play style or alternately one in which the participants play in several different play spaces and can discuss the merits of each one with one another.

For example, I have been presenting different stages of this research at various types of conferences for some time now. As with many presentations, conversations sometimes started around my work and the work of others. In one particular case there were four of us who had played in a total of at least three virtual play spaces

among us. We spent the better part of an hour discussing our opinions of each play space, as well as the future of particular play spaces, whether we were inclined to continue to play in the virtual play spaces we played now, and so on. Within this real world peer culture we easily discussed a shared interest, although some of us never met before. According to others I have known who participate in groups such as the Society for Creative Anachronism (SCA), a group devoted to medieval weapons, crafts and so on, the connection is similar. This phenomenon is presumably due to common interest and a common language, which will be discussed later. Clearly by presenting at conferences and having conversations such as the one mentioned here I put myself into an information neighborhood where I might learn by both active and non-directed scanning.

Interestingly, this sort of casual conversation did not break anonymity. I either interacted with people knowing only their avatar names and appearances, or first names (and sometimes last names) in real life…but never both. I never asked anyone not to tell me, it just never came up. Oftentimes someone would mention his or her character type, but that was all.

I expected to be looking more closely at the formation and maintenance of Supergroups in CoH than I eventually did. As the research evolved it became obvious that Supergroups tended to emerge and disband very quickly in this play space, unlike other virtual play spaces, such as EverQuest (Verant Interactive 1999) and World of Warcraft (Blizzard Entertainment, 2004) I have read and heard about. In the course of my time in CoH I was asked to join several Supergroups. At least once I was invited by someone I had never met nor played with (an invitation I declined). I did not feel

comfortable accepting entry into a group whose leader was a complete stranger. Another time a call went out for heroes to join an "evilish Super Group," I was not sure what that meant, and by the time I had a moment to ask the hero who was recruiting for the Supergroup, he was no longer available. Recruitment for groups generally takes the form of someone asking for players to join on the global chat, recruiting in the forums, and simply asking people directly. The Supergroup invitation looks much like the team play invitation with a choice to accept or reject the invitation. Most Supergroups will accept almost any type of player, although some do have requirements of time, archetype, etc. During my own game play, I was a member of two separate Supergroups. One of them fell apart due to apparent disinterest and the other of is, as of this writing, still in existence, but generally inactive.

CoH makes the creation of teams and Supergroups very easy. In fact, it requires nothing but a certain character level to register a group, and often the members have no particular interest in maintaining the group, instead moving from group to group. One relatively new player of the game posted the following in an unofficial forum, "First, you have to be at least 10th level to start a Super group, then you'll have to go and register your Super Group. This all pretty straight forward (sic) stuff and relatively easy to accomplish. Then it gets....well tough!" (How to create a successful Super Group posted 3/24/06, para. 4). He goes on to describe his problems with recruiting a team with interests and tastes similar to the leader's.

The founder of a Supergroup can choose Supergroup colors and a chest emblem. She may also create a message of the day. The colors and chest emblem

provide uniforms of sorts. Development of uniform would seem provide a signal to others in the play space that we in the Supergroup are a part of something and they are outside of our circle. It is, in fact, the exclusion of outsiders that often characterizes the rhetorics of identity play, according to Sutton-Smith (1997). The contention in this case is that play is for bonding and belonging.

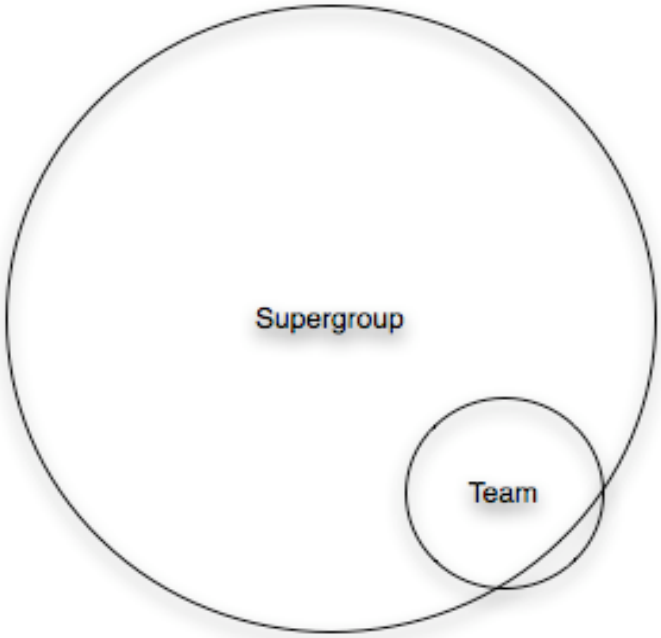


Figure 4.2 -- the expected relationship of temporary team to Supergroup in which the team (or most of its members) was nearly always a part of the Supergroup

It is the case in CoH, however, that members of Supergroups very often team with members of other Supergroups and/or with those who do not belong to Supergroups at all. The phenomenon of playing with others, rather than one's own Supergroup (although members of the SG may play together when they are on together) seems to suggest that there are no real "insiders."

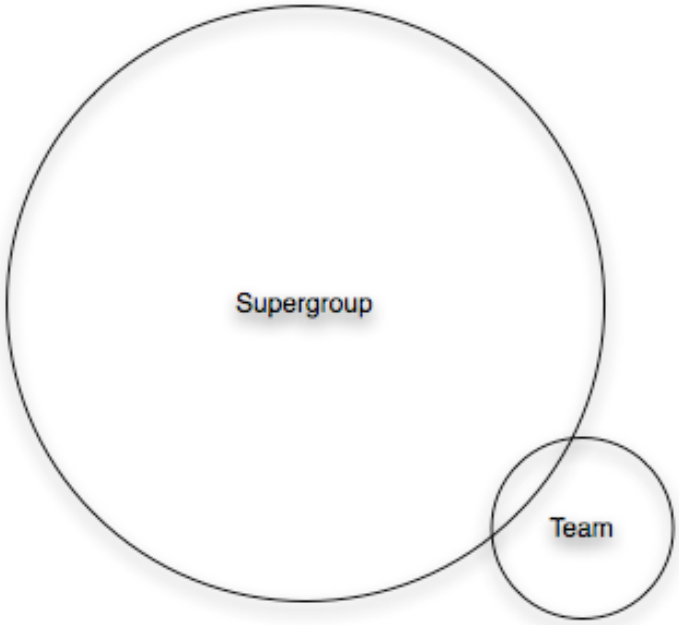


Figure 4.3 -- a model of what I observed in most situations. Teams or team members often didn't play with their Supergroup members, or did not have Supergroup affiliation.

Players who are members of a Supergroup can also choose whether they want to play in Supergroup mode for any particular play session. Even though I chose to play in Supergroup mode exclusively once I was a member of my second Supergroup, I rarely saw my fellow group members online, even though I played at various hours of the day and night. At one point, I did not see anyone else in the group online at the same time I was on for nearly three weeks, so if I wanted to team, I had to team with someone else. Also this group, by far the more solid of the two I participated in, grew quickly from five members to approximately fifteen, and just as quickly dwindled to six.

Therefore, the sorts of tightly knit peer cultures I expected to find rarely seem to form. Some Supergroups even express from the outset that they are not particularly interested in being a group that plays together regularly. For instance, a particular

Supergroup advertises itself this way in one of the forums, “We are a fairly loosely organized group of players who just like to have fun. We have a tendancy (sic) to solo, but just say the word in the sg channel and you will have every online member on their way” (The Hand of the Gods, posted 3/31/2006, para. 2).

There are, however, two recent additions to the game that allow for a more bonding and belonging atmosphere, discussed in section 4.4.1.2 below, base-building system and the prestige system. Although there seem to be more Supergroups forming and recruiting since those additions, whether the tendency for group recruitment and formation will continue remains to be seen.

In the listed fan sites available from the main CoH Web site, there are a number of Supergroups listed, however a few of Supergroup sites are now broken links, and many of the most recent posts things that are months old. Further, a quick review of teams listed on the Web site gameamp, for instance, shows about 20% of the Supergroups as inactive and most of the others as having only one member (CoH Supergroup listing, 2004-2006). Among the others, it is very often unnecessary to have played with anyone in the group to be able to join. Many just look for people who are willing to sign up. This may take the form of a request for members in global chat, which is how I found my second group (non-directed scanning). I agreed to join them after we had talked for a while and teamed together once. Another way that Supergroups recruit is in the forums. Often there is a forum announcement that a group is recruiting and to contact the leader either in-game or in the forum for an invitation to the team (active scanning here can lead to a Supergroup). A small number

of Supergroups do have requirements for avatar level or archetype, but these are by far the exception than the rule.

In fact the first Supergroup that I joined was created for no reason other than the fact that the leader could create one. It was never more than a loose conglomeration of about a dozen players, and it collapsed in only a few weeks as people drifted away one at a time. The second group was founded on common interests and characteristics; the common characteristic was being female, the common interest playfully "bagging on the guys." Obviously there is no absolute way to tell that we were all female, but that at least was the premise. This group was formed to be a casual group, people to talk to or play with if any of us happened to be on together. It did also have the element of insider/outsider simply because, like childhood clubhouses, it was "no boys allowed." Generally, even if we were on together we did not play together so much as we chatted. No demands were place on our time, however, as often happens in more formal or hard-core Supergroups.

The Groups seemed to fall apart easily due to disinterest, in which case members drifted away one at a time, leaving few to continue the Supergroup, if it continues at all. The phenomenon of team dissolution that seems to be happening increasingly has led to some bewilderment on the part of players such as the one who posted, "What happened to the game? Every hero and villain retired or took a sabbatical of some sort. I've talked to many SG's and the people on the game and their SG is down pretty bad to the point where you don't see the old big SG's that once dominated" (What happened? Posted 11/19/2004). Other players posting in the "What

happened?" forum thread referred to here, were responding with similar concerns until as recently May 2006.

Sometimes the group members have drifted away from the game into another. Some also maintain teams, Supergroups, clans or guilds in various games but with the same players. There are two other factors involved in the breakup of Supergroups that I have encountered in conversation with a variety of players: moving to another game and what I call groups "collapsing from burn out."

According to some of my acquaintances in the game industry, it is common when the "next big game" is launched there is a general decline in the sales of the "last big thing." The shift from one virtual play spaces to another is the same. Players apparently move either individually or with friends to new game spaces. Going from one game to another is a trend that has been repeated over and over within the industry. For example, for several years EverQuest (Verant Interactive, 1999) was the most popular of the virtual play spaces, quickly overshadowing its predecessor Ultima Online (Origin Entertainment, 1997). Over time games such as CoH (Cryptic Studios, 2004), Dark Age of Camelot (Mythic Entertainment, 2001) and Star Wars Galaxies (Sony Online Entertainment, 2003) launched and attracted players, somewhat at the expense of EverQuest, although many players returned to EQ. Currently Worlds of Warcraft (Blizzard Entertainment, 2004) is the most popular of the virtual play spaces, having taken players from each of the others.

The other thing that causes the breakdown of Supergroups and the like in virtual play spaces is that the intensity of the group and the demands that it makes on personal life become overwhelming. In an earlier research study in which I questioned why people

played in virtual play spaces, one of my respondents told me that he had played primarily for social reasons, but that he had to quit when it got in the way of his life with his wife and three children (Adams 2002).

One leader who still maintains a Supergroup made these comments about her experience, “I started a supergroup as soon as I was legal (10 at the time) It's has (sic) been quite an adventure, and I know now that at the time I certainly underestimated the amount of dedication it takes to make a strong and successful SG. Leave it to a n00b.” She continues to describe some of the other requirements for herself and the others in the group. For instance, creating a Web site and keeping it up, doing longer missions together, attending social functions, and so on (How to create a super group, post 3, para. 1).

I personally did not form a Supergroup for because I felt as if taking the time to create a Supergroup and keep it going (something that seems to fall to the leader) would take the focus away from my observation and participation in groups. Further, my intent was to study such groups from the standpoint of a participating member rather than the role of a leader.

Finally another describes the time requirements of the Supergroup that he leads, “When your SG hits the 60+ toon level, start to look at how long it has been since some have been played, and define a time limit for "stale" characters. My SG started out with a 30 day limit before being kicked, but we recently lowered it to 20 due to high traffic and new players” (How to create a successful super group, post 2. para. 4). It requires significant time to reach level 60+ and should a team member become ill, have

significant computer problem or go on vacation, he risks being "kicked" from the group. The requirement to be available often results in burn out among the players in a team. The time requirement was mentioned as a reason for leaving group play in casual conversation, as well as earlier research (Adams, 2002).

The time required of players in the less casual groups is considerable. One columnist on an unofficial game site spoke of the groups that tended to stay together in this way "The game places a great demand on their personal lives. Often they need to play a certain amount of hours a week and be logged on specific times" (Hero by Night, 2004, para.7). In one conversation, I spoke to a young man who was in the game industry and an avid participant in virtual play spaces who remarked, "When my clan began to make the same kind of demands on me as a job I had to quit. I quit the whole game, cold turkey" It is this sort of team disintegration that I refer to as team burn out. This phenomenon is difficult to detect in observation, but the concept arises often in casual conversation with players from a variety of virtual play spaces who have been members of the type of group that is demanding of their time and potentially disruptive of their personal lives. This type of team disintegration is in agreement with Callois (1961) who says, "One plays only if and when one wishes to. In this sense play is a free activity" (p.7). When the pressure to be in-game and participating whether she wishes to or not, playing becomes something other than play.

In either case, Supergroups in CoH tended to be easy to form and not often maintained for long. There are exceptions, of course, such as the Legion of Valor, a very active Supergroup since 2004, which hovers around 100 players. Legion of Valor is housed on the Victory server, and while there are some others like it scattered throughout

the game, they seem to be the in the minority. My feeling about the importance of Supergroups in CoH seems to be confirmed by the following quote from ogaming, a gamer-created Web site, "At this time, Super Groups (sic) are little more than a roleplaying tool and a pool of people to group with. Super Groups get their own chat channel and get to change the colors of their costumes, but they present little other gameplay impact" (Super Groups, 2005). On the other hand, temporary teams, while their existence is fleeting, often lead to casual friendships and lend themselves to a study of play and meaning making.

The casual friendships formed in the game can consist of simply knowing another avatar's name and looking for him or her when you are online. However, there is also a formalized system for keeping track of your in-game friends. When players decide, usually after they have played successfully together once or twice, that they would like to be friends they can add one another to their official friends list. Once another player is on that list, the game alerts the player when he or she is on. After I had been playing for about a month and had gained some useful skills I had several invitations from fellow players to be on each other's friends list. I accepted the invitations and played with these friends from time to time throughout my play experience. Eventually, though, we played together less because due to patterns of play our security levels and missions became less conducive to teaming up. It is much easier to team if the team members are all roughly equal in level. There are ways to team together even when a player and her friends are playing avatars that are not as close in level, but these work-arounds do not allow for as much experience or influence to be gained and they affect the ways in which an avatar may use her powers.

4.3.2 Formation of temporary teams

As noted above, temporary teams seem to be much more important in the virtual play space than Supergroups. Oftentimes a contact, when assigning a mission will include some statement such as "You'll meet a lot of resistance there, it might be a good idea to take along some friends." This is piece of information that is supplied by the game creators who see the players as needing the information to succeed. An example of by proxy in the information practices model.

The suggestion that I will need friends suggests that this is a particularly tough mission and I should consolidate my power base. Consolidation of power, then, is one of the forces in formation of temporary teams. It is important in CoH in forming a team to consolidate not only the offensive powers, but the defensive ones as well.

Ideally all of the archetypes work together on teams to defeat enemies, however, it is not always possible to find all of the appropriate teammates, of a similar level and not otherwise occupied in a mission to comprise a team. The lack of availability of certain archetypes or players who are not at the ideal does not preclude forming a successful team. What is required is two-fold, first recognizing the various archetypes and what they are likely to be able to do, defensively or offensively. For instance in the play session recounted above, two controllers were used as defensive players rather than a defender and a controller. Fortunately some flexibility is introduced by the fact that there are 7 members allowed on a team so it is possible to double up on some archetypes.

Second, either create or join a hopefully good team. I mentioned in the description of the play session several ways to do this, but here I would like to examine them briefly

in the light of information practices. One of the major ways of finding teammates is to look at a list of players who are currently in-game; this list is available through the interface and can be queried for player level and type. A good deal of information is given about a player, such as archetype, level and whether he is available to play. Players can also add a message that indicates whether they have any interest in teaming. Once a potential teammate is located the leader can issue an invitation. This is the most formal example of active seeking that is available in the game. If the player is looking to join a team, but not necessarily to create one, she can put herself in a position to find one by actively scanning in the global chat with a message such as "controller lvl 13 lft" (Level 13 controller is looking for team. In this case she is putting herself in a position to find someone to ask about joining a team. Active scanning in the global chat when the player watching for a message such as "Needed for team lvl 11-14 controller," again puts her in a position to find the information about a team to join.

4.4 Information and Play: "Real Seeming" vs. "Obviously Artificial"

In studying CoH I discovered that it certainly had properties that could be considered cultural. The virtual play space of CoH can be described as a "deliberately created culture." By that I mean that while many of its attributes fit the description of culture as defined in Chapter 1, it is not complete enough, due to the artificiality of the virtual play space's development to be studied solely in the cultural or sub-cultural context. For example, as explained above, teams, whether Supergroups or temporary teams often do not grow out of or become close through sustained personal interaction.

To further examine the concepts and theories of information and play in CoH, it will be necessary to separate the virtual play space into two levels that, for lack of better terminology I have dubbed " the real seeming" and "the obviously artificial." As Bolter and Grusin (1999) observe "Such games seek the real…sometimes by encouraging the player to look through the surface of the screen and sometimes by dwelling on the surface with its multiplicity of mediated objects" (p. 94). The real and the artificial levels are considerably blurred, but teasing them apart as far as possible seemed vital to exploration of the data from the standpoint of information behavior and play theory.

4.4.1 The real seeming

One must make sense of real or real-seeming happenings and interactions in order to thrive in a play space. In order to make sense of things, players often have to find information, and just as in everyday life, the ways in which they seek the information are affected by the culture elements of the space, which may be considered comparable to an offline play space.

While from a certain standpoint the entire game is artificial, it does in fact offer at least the illusion of reality, both visually and in terms of the cultural elements mentioned in chapter. We enter into the game believing that we are about to interact with and be entertained by an alternate environment. In theatrical terms this willingness to accept the virtual play space as alternative environment can be referred to as willing suspension of disbelief (Coleridge, 1907), but in the realm of video games Murray's (1997) term "active creation of belief, " may in fact be more accurate.

Illustration 4.2 – Screenshot of a cityscape and other heroes in a "real seeming" area. Taken January 2006.

4.4.1.1 The Role of Immersion and Agency in the "Real Seeming"

"Immersion" is a very popular term in computer game circles. Murray (1997) describes immersion as a metaphorical concept concerning the wish to be surrounded by a completely other reality that takes all of our attention and perception.

Video games are by their nature intended to immerse one in another reality. In fact I sometimes felt like a tourist immersed in a foreign place, complete with unfamiliar cultural norms, a different space (albeit virtual), a language of sorts, and so on. Even as time went by and my conception of CoH shifted away from the idea that I was looking at a full culture, I still sometimes felt like a tourist. In that light, I looked at the game's

manual as something of a tourist guidebook, in that, while it was rich in information, it really did not give me what I needed to understand or survive in the culture. It was a good source for active seeking, however, when a problem arose. Not only did immersion enhance the gaming experience, but also understanding many elements in the play space demanded it.

Murray's description of agency is this, "When the things we do bring tangible results, we experience the second characteristic delight of electronic environments—a sense of agency. Agency is the satisfying power to take meaningful action and see the results of our choices" (p. 126). One of the things that helps make the real seeming space so real is that a player sees an immediate response to the action he or she takes. The ability to intervene in the action is a hallmark of video games that separates them from other art forms.

Agency is also a hallmark of a variety of information practices. Certainly active seeking and active scanning are controlled by our taking meaningful action to gain the answers to our questions, and certainly any of the information practices requires us to see the results of the choices we have made and determine whether our need is satisfied, gap bridged or question answered, or whether we have to take further action before we are ready to accept our results.

4.4.1.2 Sociality

In some games, such as CoH, teaming and social interaction are encouraged by the structure of the game. In my field notes on the subject I made the observation that "it is really interesting how they have set it up so that you work better in teams, so that all

the archetypes work better in teams together."

While it is true that the developers of the game have created the archetypes and quests, and that it is the same persistent environment on each server, each server differs in tone. As it happens, I chose the Justice server, which has the reputation among the players in some of the forums as the social server in CoH. As one player on an unofficial forum commented on April 15, 2005, "Justice does hit the medium load pretty often, as i (sic) play almost exclusively on Justice. Like the others have stated, I've seen more than my fair share of costume contests, dance parties, and other senseless gathering ideas that can be thought of. I guess Justice has turned into the social server of sorts. 'Come to Justice, hang out, enjoy a nice social setting...oh, you don't have to play the game, just come hang out with us...' LOL" (Too Crowded (not ranting or whining), posted 4/1/2005).

I made one brief foray into the Liberty Server, but beyond that I did all of my research on the Justice Server. The social nature of the server population in demonstrated by the fact that there always seemed to be something going on in Atlas Park whether a costume contest, a dance party (see illustration 4.3), or some other social gathering. Any player can start a costume contest or beauty pageant any time by designating herself a judge (through the emotes menu) and offering a prize, usually influence. If others are interested they queue up to be judged. Dance parties are even easier, an invitation can be issued in global chat, and the emotes menu can be used to produce music and dancing.

Early on in my research I made the following observation in my field notes. "As I was leaving, some people were holding a beauty pageant for all the female avatars or players with a female toon. I did not enter …but I could have. Probably the only way I

could ever win a beauty pageant, but it was interesting…that you could do things as your avatar that you probably could never do in real life." This observation refers not only to the sorts of social events that occur in the virtual play space, but also presentation of oneself in roles that are both playful and unusual. Further, much of what I came to know about the nature of the server was accomplished through non-directed scanning.

Illustration 4.3 – Screenshot of a small dance party at the base of the Atlas statue in Atlas Park taken June 2006

Not only does CoH encourage grouping by way of the type of characters or archetypes that are available, but also by enabling, as was mentioned above, the creation of temporary teams, friendship lists and Supergroups. Supergroups are intended to be comparable to the sorts of clans or guilds found in other games. The creators of this particular virtual play space have also added two important social elements to the most

recent instantiation of the game: base building and prestige systems.

Both of these elements invoke the real seeming elements. Base building allows Supergroups to build their own separate space furnished with anything from equipment for healing to a disco ball depending upon what the group chooses. It gives Supergroup members a place to “hang out” and chat, something social to do when they are not questing.

Illustration 4.4 -- Screenshot of the storage room in a hero base (City of Heroes screenshots at GameAmp, 2006)

The prestige system serves the purpose of keeping the teams together. This system allows a group member to earn prestige for the group by playing in Supergroup mode regardless of whether she is playing with other members of her group or not. Prestige is earned in precisely the same way as other rewards, by defeating baddies and completing missions. It can be likened to being a company representative who does something important on her own and thus brings prestige and social capital back to the company. Prestige is also important to teams because it has practical functions such as

paying the rent on the base. The fact that I was contributing to the game experience not only for myself, but also for my team contributed to the sense of belonging regardless of the fact that I rarely saw other team members online.

I had less experience with the base building system, as it was available only to those who also had City of Villains, an add-on to CoH, installed. The prestige system, however, while it was added at the same time as the base-building system, still allowed me to earn prestige for my team. Earning prestige for my team was a source of pride for me, and it eventually earned me a promotion in my Supergroup even though I rarely played on the same temporary teams with them. Whether these changes make more tightly knit and persistent types of formations more prevalent among Supergroups remains to be seen.

There is also evidence of social stratification in virtual play spaces. The most obvious of these is character level. Virtually every game of this type has a way for players with more experience to "level up" and therefore acquire more weapons, power and other rewards. There sometimes then is a sort of stratification that differentiates new players or newbies from those at high levels. Some upper level (or hard-core) players intentionally give newbies a very hard time, but others may practice a sort of noblesse oblige by giving important items and/or money (or whatever form of exchange) to ease the new players along as they start out. In CoH one can give or exchange influence, inspirations and enhancements.

Players will sometimes make negative judgments about those who they perceive as newbies. For instance one day, after I had been playing for about a month, I was playing early in the afternoon when an argument or "flame war" erupted in global chat.

One player was insistent that, if you were playing this time of day, "you either flunked out of school, or are on summer vacation, or you just happen to have a day off." As the argument continued it became clear that he meant the other players were either generally stupid, newbies or did not play much. All of these conditions seemed equally abhorrent to him. It left me to wonder what he was doing there.

CoH is intended to be "family friendly." So, while it is rated as a game for teens flaming is frowned upon, although not entirely absent as is evident in the above paragraph. There is, however, in team environments, a generally polite atmosphere. Etiquette seems to stem from game-play. For instance when interacting with other players the terms "plz"(please), "thx" (thanks), "ty"(thank you) and, "yw" (you're welcome) are often used. When a team has finished a mission together or one of the members of the team has leveled up or in other positive situations, terms like "gratz" (congratulations), "u r0x0r"(you rock!), and "woot!' (an expression of triumph) are common. And even in instances when a player has caused a problem by making an error, he or she often apologizes and the response is commonly "np" (no problem). Other examples of in-game etiquette, such as offering before helping and not stealing kills were mentioned earlier. Etiquette seems learned by encounter or non-directed scan.

Just as any other cultural environment, society and culture shape and constrain conduct, but they are also the products of conduct. So, for example, while the leveling system is built into this environment, there is another type of stratification suggested by a group of gamers in CoH. That is the distinction between "Hero by night" and "Full-Time Hero." While these definitions are roughly similar to the leveling scheme, they relate more to play style and how much time the player is willing to commit to the game. These

are definitions created by social interaction rather than by the structure of the game.

A "Hero by night" is defined as "Casual – This player has a very loose play style. When he/she logs on they might simply solo, they might group it really depends on the mood their (sic) in when they log on. They typically don't level too quickly. When I say quickly you probably won't see one shoot from level 10 to level 40 in a week. They typically have a group of people they play with regularly. They may or may not be in a Super Group. The game places no demands on them. They more then (sic) likely wouldn't join a Super Group that did place demands on them"(Hero by Night, 2004).

A "Full time hero" by contrast is "Hardcore – These are the high level gamers. Typically, they hardly ever solo. Instead they focus on XP group grinds and high levels raids. They level up fairly quickly. They can raise a character from birth to the level cap in few weeks. They are part of a Super Group or are trying to get in one. The game places a great demand on their personal lives. Often they need to play a certain amount of hours a week and be logged on specific times" (Hero by Night, 2004).

4.4.1.3 Spatiality

One of the essential elements of play described by Roger Callois (1961) and others is that it is "circumscribed within limits of space and time, defined and fixed in advance" (p. 6). In virtual play spaces, game players are presented with a persistent world to discover and interact with. The fact that the limits of time and space in this case are virtual does not change the fact that this type of game meets the requirement of separate space for game play.

Regardless of the fact that video games are represented on a two-dimensional

medium, one of their characteristics is the representation of navigable space. It is much like entering a foreign place, where exploration is necessary to understand the area. In a representative note from my field notes I remarked, "I'm just finding out, doing a little exploration." In this case I was referring to looking for information and doing so by "spatial" exploration. This kind of exploration to "get the lay of the land" can be construed both as active scanning and non-directed monitoring. In performing this action, I not only got a sense of the geography of the place, but also was in a position to encounter other types of information.

The makers of CoH describe their game thus:

> Soar high above towering cityscapes, battle gangs of thugs in dank underground lairs, and continue your own ongoing quest for justice on the streets, freeways and back-alleys of Paragon City. Realize your greatest comic book dreams in this massively multiplayer online role-playing game that's home to an entire universe of super-powered heroes and villains (PlayNC, 2005).

The above quotation clearly describes a place or space where the play is to happen.

Much of the sense of space is the effect of extensive and detailed 3D modeling, but the dozens of times in my own field notes I refer to going someplace or exploring something suggests that agency and an odd sort of physicality enter into the sense of space.

Even more telling is the number of times I refer to turning the wrong way or getting lost. In fact in early play sessions I made reference to directional problems 5 or more times a session. In a typical example I note, "OK, so I'm just going to get on the monorail

and go up to Galaxy City and see if I can find… Golly, went the wrong direction there!" In this particular case, not only did I note that I had gone in the wrong direction, something I did numerous times, but I also noted one of the "modes of transportation" in CoH that made me feel as if I were really traveling to some other place in the City.

In my field notes, I refer to maps at least a hundred times over the course of the research, a definite corollary to a common navigational aid in the world outside. When it was necessary to get to the team quickly and I was in the same zone, I could pull up a dynamic map that showed the team member's locations as they moved. Maps were useful as well in solo missions, because I could pull up a map of the mission space to find the spaces I had not yet explored when the object of the mission was elusive in some way. Not only are there virtual city maps, zone maps and mission maps, but there was also a paper map in the box when I bought the game. The maps are all sources appropriate for active seeking that I could consult with pre-formulated questions such as "Where is my team?" or "Where haven't I looked yet?"

Sometimes, however, an initial mode of information seeking a failure occurs in either connecting to or interacting with the information, and other strategies must be employed, as pointed out in McKenzie's (2002) model (See figure 4.1) A case in point is my inability to find Striga Island on any map (active seeking). I could not find it by exploring the city (active scanning), provoking a disorienting feeling like I might have while lost in a strange city, so I attempted to use active seeking again by, sending out feelers in broadcast chat, but the practice of still failed. The problem was resolved, when, a friend got tired of my complaining about it and said "google it!" (an example of the by proxy mode of information practices). When I did, I found a dozen or more sites provided

primarily by players of the game that gave explicit maps and directions. Striga had been added after the game was sold, a common issue in virtual play spaces. The world can change very rapidly in many ways.

Not only did the geographical space give the sense of reality, so did some of the interior spaces. For instance, upon entering a cave, I had a sense of the closed feeling of a real cave and so on. On one mission in an office building, I made the following comment after having run in and out of an office, "There are some nifty details…there is nothing you can read, but in the little office space I was just in there was a white board and a desk and a chair and a computer."

4.4.1.4 Physicality and Emotionality

While we cannot touch or even see the facial expressions of other players through their avatars, there are still physical elements in such games. The first and most simplistic is the hand-eye coordination necessary to play the games well. That is, the kinesthetic of actually moving parts of one's body to play, despite the fact that the on-screen bodily action of the avatar is achieved through highly artificial means, i.e. keyboard and mouse.

We are also given a list of stereotypical actions that can be performed by either key combination or menu. These items, called emotes, give us a physical way for avatars express certain emotions in absence of facial expression. For example see illustration 4.5

Illustration 4.5 – Screenshot of my avatar pumping her arm in victory, one of the available emotes. Screenshot taken June 2006

Another type of physicality is linked closely with emotional reaction to the other players in the virtual play space. If people are making social connections through the games there are emotional connections on some level, whether they are close or not. It is in the physical action of playing together that emotional relations are forged.

However, there is another type of physiological and emotional reaction to the playing of the game that provokes a physical reaction. For instance in this entry from my field notes I observed "It is important, I think to note here there is a real sense of 'reality' during certain parts of the game…I often find myself somewhat breathless after a long run to a team or mission, or after a mission. I think the breathlessness [and pounding heart] is probably caused by holding my breath as one sometimes does while concentrating hard." In the final estimate though, I was having the physiological reaction

that corresponded with an emotional response to fear, for instance, or triumph.

4.4.1.5 Language

In order to understand the cultural environment of the game, one must "speak the language," which is replete with abbreviations and alternate spellings, such as the ones seen in the section on sociality (see Glossary). In most games the communication takes the form of text[7], and the abbreviations can be opaque. Unlike some of the other game elements, such as the use of powers, which are explained in the manual, the language of the game must be learned by example and immersion. Often when entering a new culture the best way to learn the language is to be immersed in it.

When I entered the virtual play space, I was already aware of some of the common gamer language due to my work in the gaming industry. In the case of the virtual play space the information practices I used in order to learn the language more fully were primarily active scanning and non-directed monitoring. There is no standardized formal reference in which to do any formal sort of active seeking, and I chose not to actively search by asking a lot of questions about the language. I made choice for reasons of impression management, not wanting to be seen as a clueless newbie. On reflection I can say that this was a case in which I definitely became a player, I thought like a player in this instance.

I was surprised, then, to find myself making the following joke, a pun; on my tape "They [the bad guys] are nasty and aggressive today. I had to use an enrage inspiration [an in-game power enhancer that improves focus temporarily…as if you were very angry]

[7] There is a system available called TeamSpeak which allows players to communicate verbally, however I did not play using it, nor did I play with anyone who did to the best of my knowledge.

because I was fighting too many people for my skill level and sometimes that will help you if you are extra mad. So it increases your 'mad skillz' (ooh, that's a bad gamer joke)" 'Mad skillz' is gamer language for being particularly adept at playing the game. Reflecting later in my journal I decided that even the bad joke was important because it demonstrates that there is indeed a specialized language. Also, I believe that being able to make a joke in that language, even a small pun such as this, demonstrates a more complete immersion in and understanding of the environment. This also is an example of becoming more than just an observer, but instead a full participant.

It was however, of great interest to me to see that, while I expected language to be of major significance in this study, it was less important than anticipated. In my field notes I commented, "There is some chat going on and chat is a good place to get information, but there isn't a lot (not only live chat, but running in game commentary)." Later I noted in my personal journal "And actually as you team the 'running commentary' provided by the game becomes more important as you become more invested in who made what defeat."

General chat in the open broadcast and global channels was limited primarily to those looking for teams and to the very occasional bout of flaming. Chat was of somewhat more consequence in more limited channels such as team, Supergroup and friends, but even in these there was much less chat than expected.

While chat was not as important as I assumed it would be, information practices were observed in relation to each type of chat channel. For instance, when I was involved in a solo battle the global channel provided a running commentary about who I had defeated, what inspirations, enhancements, experience, prestige and influence I had

earned and so on. The information provided in this way could be very useful in determining how I was doing. The mode of information practice here was by proxy in that the game maker's had construed the players as being in need of information, and had provided it.

The global channel was also a good place to discover or encounter unexpected information. I often learned there that someone was looking for a team, and sometimes took the information and joined the team. It was in this mode in global chat that I found and ultimately joined my second Supergroup. I was not looking for a Supergroup that day, and when I had been looking it was in Web pages away from the game. Once my attention had been engaged by making this discovery in non-directed monitoring mode, I moved into an active seeking mode, asking questions of the two people who were recruiting to find out more about their group and whether I wanted to be a part of it.

Team chat, being available only to teammates and only during missions tended to be more directed toward finding out and sharing information in active ways, although the mode may shift to by proxy from time to time if one team member perceives another as in need of information and chooses to provide it. There is also the same assumption by the game's makers that the player's are in need of information, and such information is provided in team chat in the same way as in global chat during solo missions.

Supergroup chat is also limited to the group, and since our group did not play together often it was hard to judge, however, I presume players could go to Supergroup chat to ask a specific question of other members (active seeking), or to be in a place where they know information is available (active scanning) or to just chat about anything and possibly find out something in the process (non-directed monitoring).

4.4.2 Between the real and the artificial

As was mentioned earlier, there is considerable blurring between the real seeming and the obviously artificial. There are certain artificial elements embedded in the "real seeming" part of the game that, while they are clearly artificial, still become accepted as seemingly real. The elements described here are very similar to heads up displays (HUD) for pilots.

For instance, in CoH once the player has selected a quest, a small arrow or "waypoint" appears on the screen directing the player toward the intended location. It seems like such a natural extension of the compass and map functions that, as artificial as it is, it takes on the sense of a real part of the environment. This particular convention can be construed as either information seeking by proxy, as the game creators have determined that this is information we should be offered. However, this feature also allows for active seeking, because buildings, teammates and other in-game items that the player wishes to reach can be targeted on the map, and a yellow arrow will appear as a guide.

Another example of an element between the real and the artificial are the metadata attached to the citizens and villains in the mythical location of Paragon City. Metadata are "data about data" or in this case information that is given us about the non-player characters. Players are given simply names, and in the case of villains they are given information to allow better decision-making concerning how to the approach the villains. These bits of metadata are obviously artificial since they consist of text and colors, but they are so embedded in the "real seeming" part of the game as to be "real seeming"

themselves. A great deal of information is available in these targeted displays, and they can be used to actively seek information about teammates and villains.

Similar data about level, archetype, health and endurance levels and so on can be gained about other heroes. These things are artificial, but feel more real than the more obviously artificial elements described below. It is as if the information on fellow heroes is simply a part of their appearance. You need only click on the hero to get this information. In a sense, it is an augmented reality system.

Illustration 4.6 – Screenshot of targeted villain. Taken May 2006.

4.4.3 Obviously artificial elements

While engaged in the study of CoH I found that there were some elements that were necessary to allow the game to function and the player to function in the game,

but which seemed to negate the sense of CoH as a real place. There are a great many signals to make sense of and actions required to interact with in the interface making it a challenge to absorb them all. It is a necessity to absorb all of the various signals in order to have any success.

These surface elements, as opposed to the real seeming elements discussed earlier, are highly artificial because it is necessary to externalize feelings and actions, and yet it is vital to have a sense of the meaning of the elements on the surface in order to have the most rudimentary interactions within the play space. It is not just a matter of knowing which button to push or which keys to use for certain actions, it is also a matter of knowing when to use the appropriate elements.

4.4.3.1 Externalizing feelings and actions

As mentioned above, it is necessary in the "obviously artificial" interface to externalize things that people normally feel and do. Some examples are below. Examples of these interface elements in CoH can be found in Tables 4.1 and 4.2.

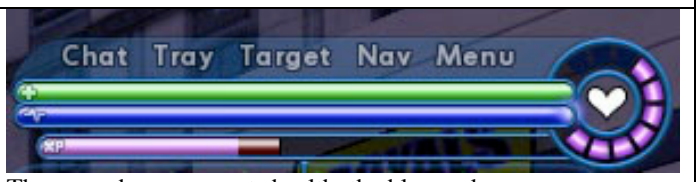
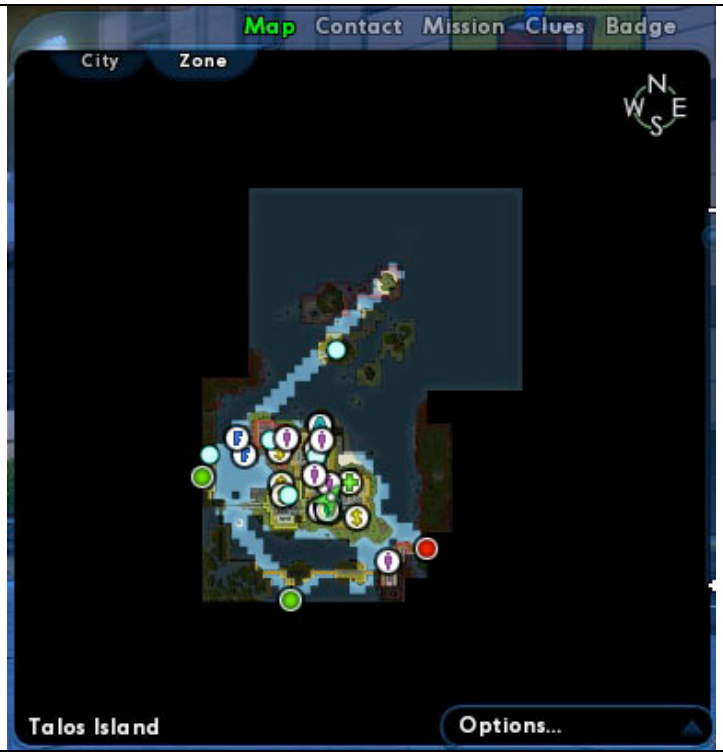
Interface Item	Game Function	Information Function	How shown
Health and endurance bars to indicate 'physical' status	Aids in creating tension and challenge.	Gives player the information to make the decision to run or fight	 The green bar represents health, the blue endurance.
Inspirations	Increases powers and add to excitement and the ability to "win" in a melee. Also has a corollary in the real world, when a person is "inspired" in some way she may perform beyond her normal capabilities	Allows better decisions about when to run and when to fight. If the player can use an inspiration she may "win"	
Powers (of course in real life we do not possess super powers, but we do possess various personal strengths)	Allows for defeating villains. (In real life, we would use these powers or strengths to perform whatever our function is in daily life)	Define character. Knowing which power set can belong to each archetype, provides a more predictable experience with other players (Our personal characteristics as variously construed can define character as others see us)	

Table 4.1. Interface elements that represent things one might do or feel

Interface Item	Game Function	Information function	How Shown
Contact list	Necessary to receive and stay on quests that are part of the game	Gives basic information about where the contacts (NPC) can be found, what missions they have sent you on, etc. Might relate to an address book, scheduler, etc (active seeking/active scanning).	
Map	Navigate the play space	Used as a map would be in the physical world with one important difference, unless they are sophisticated GPS maps, real world maps are not dynamic in showing where team members are while they are on the move (active seeking)	

Experience /Debt	An expression of how the player is doing overall	Allows the player to make decisions about what to do next. Can be understood in relation to real world debt and experience. Experience being something to get/debt something you want to get out of… (by proxy)	 The lower bar represents both experience and debt the lighter color is experience, the darker is debt. Debt can be seen as "owing experience"
Influence	Serves as a medium of exchange	Think of this as knowing your bank balance and therefore what you can do with it (by proxy)	The totals are shown on the avatar's "security ID, " one of a few screens that does not allow for screenshots. It also shown when you trade with other players or "buy" extra rewards. (Screenshot not available)

Table. 4.2 Interface elements that relate to real world items represented in artificial ways

Most of the elements in Tables 4.1 and 4.2 are displayed on the screen either all or some of the time overlaying and often blocking the more real seeming 3D world. Many such elements serve as information sources, such as the map, chat windows, status bars, power and inspiration trays, etc.

4.4.3.3 Breaking the fourth wall vs. blocking the fourth wall

As I considered the line between real seeming and obviously artificial in games further it struck me that the virtual play space is quite theatrical in nature. In traditional theatrical forms there is the convention of the fourth wall (a concept often attributed to Berthold Brecht), which the audience is looking through. We sit outside the action, but

are drawn in. Virtual play spaces are meant specifically to draw us in, and yet it became apparent to me in playing that due to the limitations of the media sometimes blocking the fourth wall was the easiest, if not the only way to accomplish drawing us in and letting us experience the virtual play space. This seems to be a convention in video games, just as the fourth wall is a convention in theater. Some examples of how the fourth wall operates in other media and how it might work in virtual play environments follow.

While breaking the fourth wall is not always the best choice for immersion, and in fact can be used deliberately to break the sense of immersion, it can also encourage participation. Breaking the fourth wall in film sometimes offers the audience a more immersive experience, inviting the audience into a more direct connection with the characters and the action. It also offers the audience information such as the exposition and character motivation provided by actor Matthew Broderick in *Ferris Bueller's Day Off* (Hughes, 1986).

In live theater the fourth wall can be further broken down by use of various forms of audience interaction, providing the audience with more of a sense of immediacy, as well as the exposition and character motivation and so on provided by films. Many theatrical presentations are presented in the round, and the actors interact directly with the audience, thus effectively breaking or eliminating the fourth wall. An extreme example of such theatrical interaction is *Shear Madness* (Jordan and Abrams, 1978) in which the audience is expected to collect the information to solve a crime. The audience is told within the first few minutes of the action to pay attention, as they will be solving a crime, encouraging them to perform active scanning throughout the play. In fact, they do solve the crime as the ending can change based on audience decisions, giving the audience not

only a sense of immersion, but also a sense of agency. Even more interactive are the various theatrical evenings and weekends, particularly murder mystery types of events, in which the audience physically become actors in the theatrical scenario.

As was mentioned earlier, the sense of agency is one the hallmarks of the "real seeming" element of video games. Oddly, it is largely through the use of the "obviously artificial" interface that players accomplish the action necessary to the sense of agency. The interface includes information about the state of the game and the player's part in it. But it does so by blocking the fourth wall rather than breaking it, by drawing a player out of the immersive environment, rather than into it. One of the developers of a video game called Deus Ex (IonStorm, 2000) referred to this blocking of the fourth wall as "Pulling your player to a goofy 2D screen" (Adams, 2002, p.11). The 2D screen also takes up screen real estate (space on the screen) making it impossible sometimes to keep with the action in the "real seeming" part of the game, which continues even when the 2D interface is activated.

Illustration 4.7 – Screenshot of the obviously artificial interface in CoH. Any or all of the elements may be open or closed at any time. Taken January 2006.

4.5 Summary

In this chapter I have described elements of the virtual play space including some of the ways in which information practices are useful as a framework for studying the information behavior in that environment. What follows in Chapter Five is an analysis from the dramaturgical perspective.

Chapter Five—From Information Behavior to Meaning-Making the Dramaturgical Approach

5.1 A Bridge Between Models of Information Seeking Behavior and Meaning-Making

As I continued to play, I began to see the game as more theatrical than anything else. Exploring the theatrical nature of the environment led me to consider dramaturgical analysis as a means for examining meaning making and play. Sense-making (as opposed to meaning-making) uses individualized techniques, such as the micro-moment timeline pioneered by Brenda Dervin. Much of what we call ELIS is also constructed by the use of individualized techniques such as interviews, keeping diaries and so on. The model of information behavior referred to in Chapter Four is an ELIS model, inasmuch as it was created out of the experience of information seeking of a particular group of people (in this case, women pregnant with twins) seeking information in a certain context.

The model of information behavior used in the previous chapter is a micro-sociological form of information behavior. Dramaturgy is also microsociological in its examination of meaning-making. Sense-making and other similar forms such as some varieties of ELIS, tend to foreground information. In these approaches the methods that are used by information seekers to find appropriate information are made explicit through techniques involving the individual in an assortment of interview techniques.

Dramaturgy, on the other hand, uses social groups as units of analysis, and tends to foreground the concept of meaning rather than information. The results of dramaturgical analysis are more implicit in nature. In these ways sense-making and

dramaturgy as ways of examining the subject of understanding the information behavior and meaning-making in the virtual play space can be seen as quite different from one another. However there are ways in which they are quite similar, for instance their micro-sociological nature.

There is a paradox in the fact that since sense-making and by extension some ELIS models are built on the individual as the unit of analysis, they can be considered micro-sociological. But, they are built on the presumption that by looking at a number of individuals in a particular group, conclusions can be drawn about the sense-making or information behavior in the group. Dramaturgy is more clearly micro-sociological, because it grows from the roots of symbolic interaction, itself micro-sociological. It also concerns meaning making or information in a group.

In fact the unit of analysis in dramaturgy is the social group, not the individual. Therefore, it is an important step toward the understanding of meaning-making in a social context. Dramaturgy has not, to my knowledge been employed as a method of analysis in the field of information studies in the past, but it is a step from information behavior as we understand it, and a much more social approach to meaning-making in an information studies context. The cognitive approaches, in concert with the more social approaches, such as dramaturgical analysis, provide a fuller picture of information behavior and meaning-making than previous models have done.

Some important similarities between information behavior, as it is commonly understood, and the dramaturgical approach are the common concern with the everyday. Both models also consider information behavior and/or meaning-making as situated in time and place. Both models are concerned with the users' definition of the

situation (whether an individual or a social group), no matter how it is derived. The situation in either case is vitally important because it is in context that information behavior takes place and meaning is both created and understood.

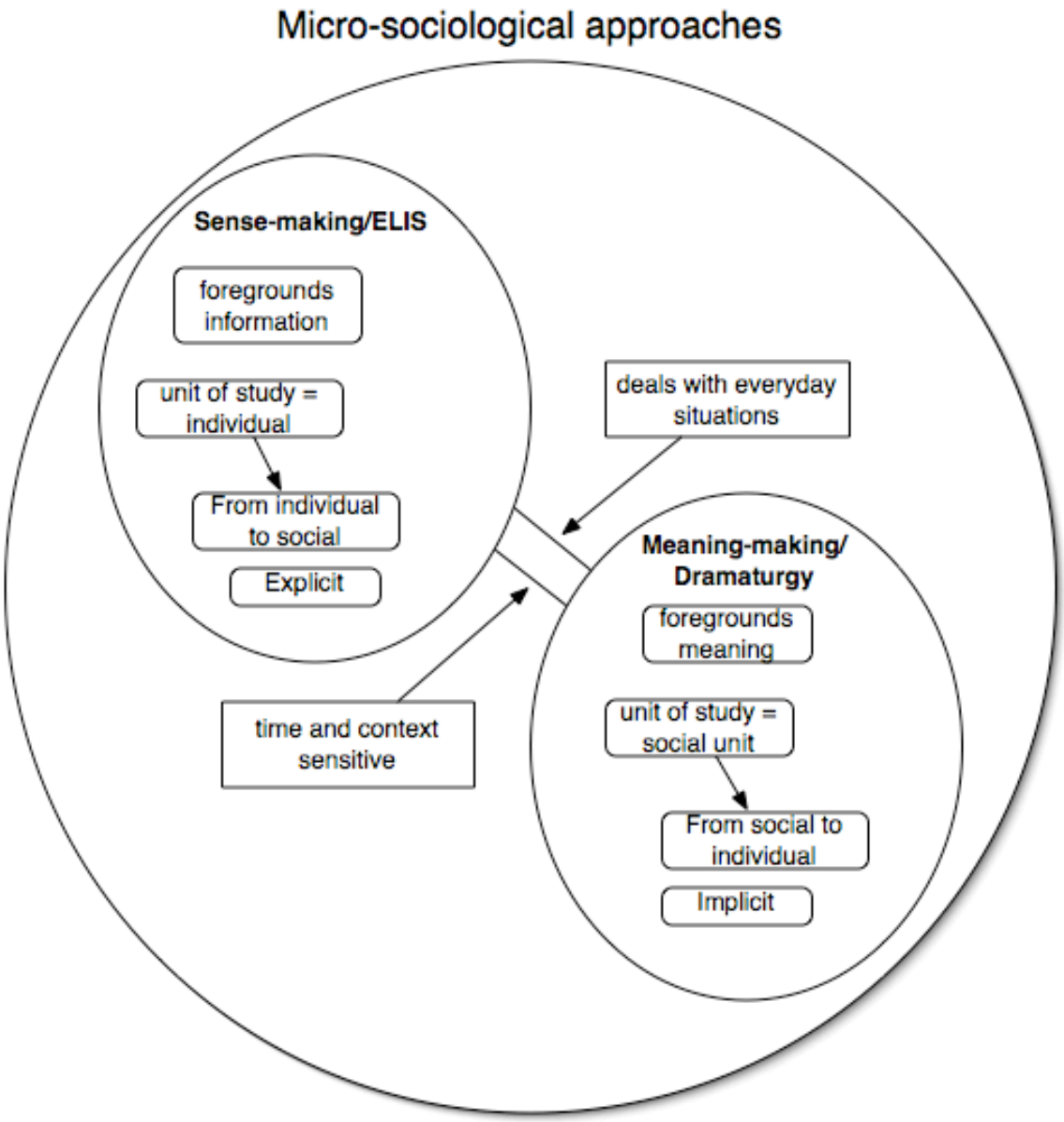


Figure 5.1 -- an interpretation of the relationship of sense-making/ELIS and dramaturgy in this research

5.1.1 CoH as a theatrical space

In the dramaturgical perspective interactions both large and small, are examined in light of theatrical elements. Here we will examine CoH first in parallel to a specific theatrical form and then more generally as a theatrical space.

5.2 General Comparisons to a Specific Theatrical Form

5.2.1 Commedia dell' arte and CoH

As I considered CoH in a more theatrical way, I started to think of a rough parallel between CoH and a particular theatrical form known as Commedia dell' arte, which further illustrated elements of theatrical performance that exist in CoH and bore further examination

Briefly, the *commedia dell' arte*, also sometimes called the Italian comedy, was a Renaissance art form that continued into the 18th century. The company's actors each developed a specific type of character, such as the Captain, the lovers, the old men, the trickster or Harlequin etc. Since all wore masks, their roles were eventually called *masks* (Claudon, 2003, para.1). While each performer brought his or her own nuances to the performance of a particular stock character, the general character traits held from troupe to troupe. The roles could be considered archetypes because they; "are timeless and can be found in any society, making them the cornerstone of many situation comedies today" (Hart, 1988, p.13).

The kind of formal scripts that we may think of in theater were not a part of this theatrical form. Hart (1988) explains, "A specific situation propels the uniquely crafted

character to behave in a consistent manner that his needs and traits dictate. It is this specific situation, or given circumstance, that makes the *commedia dell' arte* performance cohesive and brilliant entertainment" (p. 8). It is referred to as the scenario. " The organization of such a performance would be conducted by a *corago*. In this respect, the *corago* was a playwright for the troupe, giving a plot that organized the characters to interplay and inevitably structuring the play with a beginning, middle, and end. A strong scenario allowed for the creation of improvisational scenes, and the audience would follow the main plot of the piece " (Hart, 1988, p. 9). The audience expected as part of the scenario certain types of happy endings, with the younger lovers getting together and so on.

5.2.2 Archetype/role

Just as the *commedia dell' arte* is based around particular characters, roles or archetypes developed in various ways by the actors. CoH character creation is based on archetypes and origins as well. Each archetype and origin allows for the player to start with certain base powers and characteristics, but gives great latitude in playing the role.

On the CoH Stratics Web site there are suggestions about refining the character by giving him or her a detailed background story, just as is suggested in the game's manual. In the column called Roleplaying a Hero (101) there are specific examples on how role-playing can be accomplished (M'Kari, n.d.). It is the archetype and the role, refined by the player that will determine much about how the scenario is played out.

5.2.3 Scenarios/Plots

Roleplaying a Hero (101) also says:

> Role-playing means getting into character and becoming that new persona. Actors do this everyday in a movie or theatre production that they are working on. Role-playing in an MMOG is only slightly different from what the actor does. In an MMOG there is no script, we create the script as we go along. In the movie/theatre business this is called "Ad Libbing" (para.1).

The concept that avatar actions are the result of ad-libbing or impromptu acting is arguably true in one sense, given the wide latitude allowed in playing the characters. Further, players are free to explore and need never take on a mission or work in a team if they so choose. Even in this case though, there is a predictable scenario. The player explores, defeats baddies, levels up. It would be difficult to explore without ever having to encounter any baddies.

However, for most players there is a scenario or plot that is set in place by the game's makers. The game makers serve as the *corago* through the mechanism of non-player characters called contacts. The contacts distribute scenarios, missions that are part of larger story arcs. Furthermore, players are constrained not only by the mission that the game makers have created for them, but also by the fact that, once a mission or scenario is undertaken, it must come by whatever route, to a predetermined ending or failure.

5.2.4 Expected endings

As mentioned above, in the *commedia dell' arte*, no matter what the scenario, the ending was always predictable. For instance, the young lovers always reunited by

the end. Likewise in CoH, when a mission scenario is given by a contact, there are predictable conclusions regarding the ending. It is expected that the player will finish the mission successfully eventually, and when he does particular things will presumably happen.

For example, in one mission I was asked to find a hidden clue to the identity of an arch-criminal called Vahzilok in the sewers and report back to my contact. When I had completed the mission and found the clue, I did indeed learn the villain's identity. He is Dr. Vahzilok, a rogue surgeon who is stealing organs and experimenting on people. There are a multitude of such clues, missions and story arcs in CoH.

5.2.5 Some differences from Commedia dell' arte

While there are many similarities and parallels between CoH and Commedia dell' arte there are also, of course, differences. For example, while players in CoH are aware of the existence of the story arcs, as well as, the overarching motif of the game and the scenarios involved in each mission, they do not know the course of the whole story arc, other than it requires completing all the missions for one contact. Players have the choice to perform these story arcs in order, or move from one contact to another and thus be performing parts of story arcs out of order. The missions and the overarching game however are more predictable than the story arcs. Though the game and missions are predictable they remain open to the impromptu interpretation of the archetypical roles that make play in the virtual play space exciting.

5.3 Dramaturgical Theory, Play theory and Meaning Making

Sutton-Smith (1997) asserts that, "Social science needs a rhetoric for the theatrics of play identity more than it needs a lesson in the way play subserves any particular other communal identity" (p. 106). Dramaturgy, being based in theatrical metaphors, as it is, offers a way to begin the approach to a theatrics of play.

The dramaturgical approach to studying a variety of phenomena is an outgrowth of the symbolic interactionist tradition in the social sciences, particularly sociology. Essentially it is a study of how people make meaning, and one of the tenets of dramaturgical analysis is that "The meaning of an event arises in social interaction" (Sarbin, 1976, quoted in Hare & Blumberg 1998, p. 5). CoH and other virtual play spaces are a special case in this regard precisely because they are deliberately created cultures, and the general model has had to be adjusted somewhat.

The social interaction among the avatars on the screen is not the only social interaction occurring. In a very real sense the player is also involved in social interaction and the making of meaning with the creators of the game. Not only do the game's makers provide the original "culture," but also because they have the wherewithal to change it, and often do. Further, they provide us with at least quasi-interactive social exchanges with individuals in the form of NPC contacts and villains, and to a lesser degree, citizens. In this sense we, as players, are in constant interaction with the game's designers and creators. Further the designers and creators often appear incognito in the official forums, and actually play in the virtual play spaces they have created as well.

An acquaintance talked in a casual conversation about a virtual play space that he

had helped create about the fact that it was interesting to be in the game interacting with players, and also how it was to be on the forums in direct interaction with players. An interview with one of the "community coordinators" from NC Soft contains this statement,

> I am actively playing ….My main [avatar] is a defender which I enjoy a lot. I really like getting in a large group and being the healer while we go against large mobs. If you have a good group that plays well together and a good hunting spot it can be tons of fun with tons of reward. I love that (Coldfront Interview, Are you actively playing City of Heroes? para. 1and 2).

In the same interview she commented about the developer involvement in official forums, "The players love it when Statesman [one of the developers] posts, as well as the other devs. My hat is really off to those guys for being so dedicated to the community and taking the time to read and post."

Normally, the view that there is a social connection between players and creators of the game space, would defy, to some extent, a structured reading of the culture. That is, the institutional structure has an effect on how individuals interact and are therefore are important, even if they are not entirely central to dramaturgical thinking. I contend that we as players are interacting socially with the creators not only as the creators play and post in forums, but because we are in the process of constructing meanings with them as they redefine the situation, which requires us as players to redefine the situation for ourselves as a response to, or interaction with the new changes and additions to the deliberately created culture. "Definition of the situation" is an important concept in dramaturgy. Every action begins with a definition of the situation, or idea that governs

that governs actions at its onset and ends with a new definition of the situation. Thus players make new meanings or understandings.

The characteristics of dramaturgy listed by Sarbin (1976, quoted in Hare & Blumberg 1988, p. 5-6) are: the construction of self in social interaction; actors actively respond to as well as create situations; interacting persons are the unit of analysis; and individuals construct and reconstruct meanings to make sense of their observations. I will touch on each of these in my analysis of CoH through such theatrical elements as actors, scene, design, props and audience.

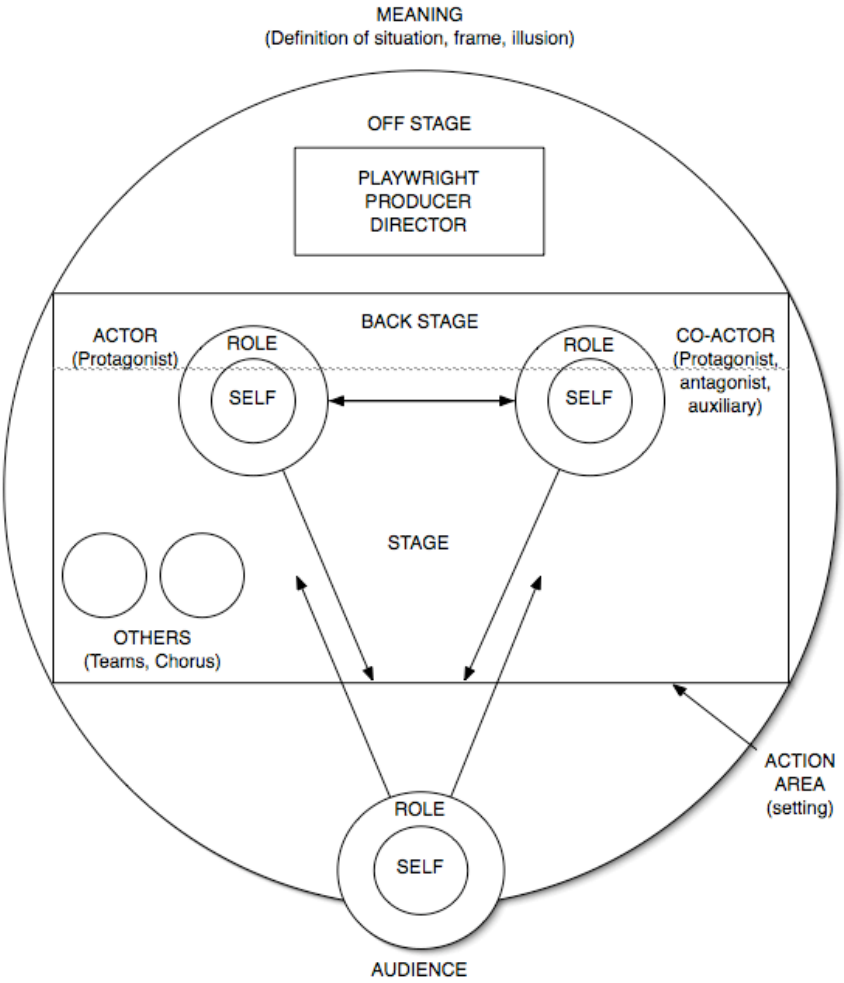


Figure 5.2 -- The basic concepts for dramaturgical analysis from Hare and Blumberg (1988)

The elements of my analysis, although all theatrical, are not precisely the elements others have used in dramaturgical analyses, nor are they arranged in precisely the same way. This due to the fact that, as was mentioned earlier, the game, much like the real theater is a deliberately created environment in which we are in social interaction with not only those player/avatars that are visible to us, but with the game's creators as well. Figure 5.3 shows a modified version of the model in figure 5.2, reflecting differences in arrangement with back stage audience and other elements. I have created adapted models in order to have better models to describe the differences in meaning making in virtual play spaces.

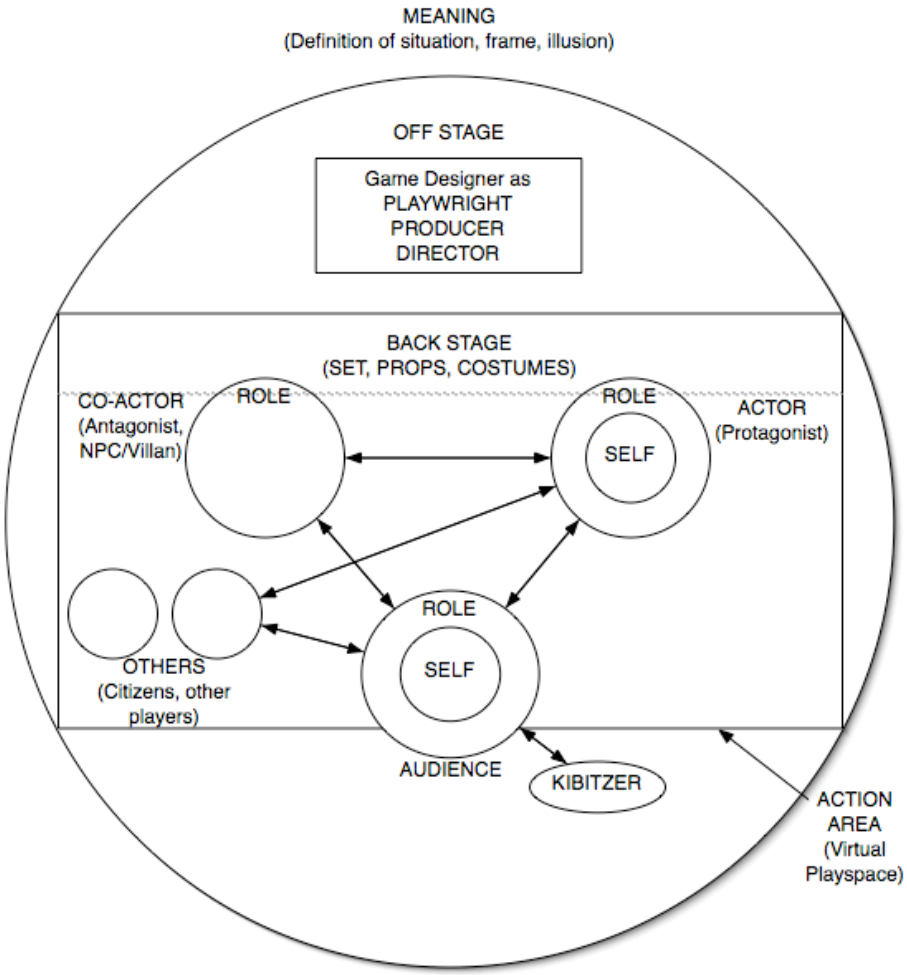


Figure 5,3 -- A modification of the Basic concepts for dramaturgical analysis from Hare and Blumberg.

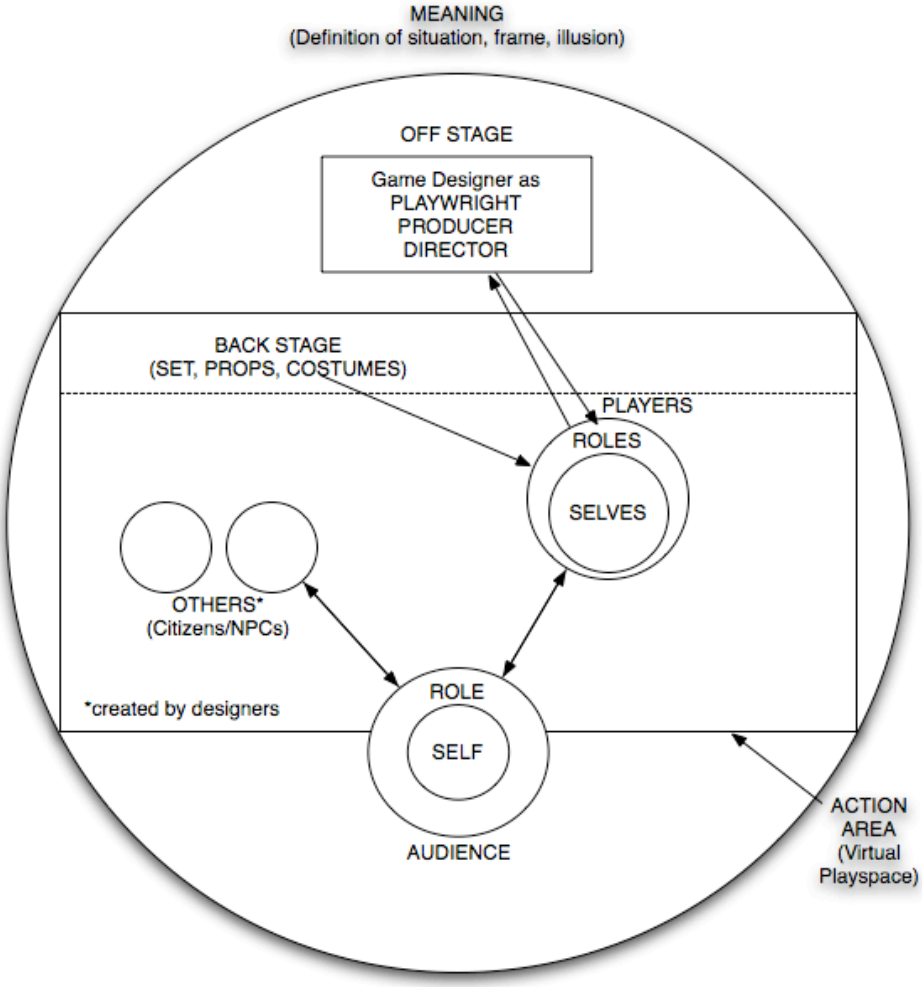


Figure 5.4 -- Another modification of Hare & Blumberg's basic concepts. This is a simplified version of the interaction between the game's makers and the players (or their on-screen avatars)

We here are also not centrally concerned with the development of non-play skills, but rather with the way meaning is made in the virtual play space for use in that space. Sawyer's (1996) work about the improvisational processes of the playing group treats the play group at any age as primarily concerned with its own play functions. In this instance I am only concerned with the functions of players in the play space.

5.3.1 CoH as a theatrical space

Here we will examine CoH in general as a theatrical space. It should be noted that each of the elements of meaning-making comes together to create an "definition of the situation," a concept which will be discussed below. How the situation is defined and made sense of is of extreme importance to how the game is played and whether any particular team venture or play session feels successful. In every social situation there is an initial definition of the situation and a final definition of the situation, and meanings may change from one to the other.

5.3.2 Role and Self

Roger Callois (1961) in his categorization of play types includes among them mimicry. He describes this category in part as, "...becoming an illusory character oneself and of so behaving" (p. 19). He says, "it is clear that theatrical presentations and dramatic interpretations belong in this category." (p. 21) Callois characterization of mimicry fits within the rhetorics of the imaginary, as discussed by Sutton-Smith (1997).

The rhetorics of the imaginary also include word play and creativity as elements. Sutton-Smith (1997) includes in his chapter on the rhetorics of the imaginary a description of the work of Turkle (1995) pointing out that, "Others have made much of the even more detached character of the person using the computer network, where the degree of accountability is also very low and a greater degree of freedom for playfulness, pretense and multiple language games is possible. " (p. 146) The kind of freedom a player has to create an avatar and to live out the pretense,

allows a great deal of exploration, not only of role, but also of self. Turkle herself claims, "Excitement about the possibilities for the flexible or pluralistic self in the modern world has been heightened by the discovery that one can play with one's virtual selves in computer communication with endless others." (quoted in Sutton-Smith, 1997, p. 178).

In CoH, the player is allowed to create an avatar for herself. By selecting an archetype and origin, creating a background story, and choosing powers, the player has chosen a role that will function as a presentation of self with which others, having also created avatars for themselves, will interact (See figure 4.5) within the world of the game, they well also interact with non-player characters that have been portrayed in figures 5.3 and 5.4 as roles, not necessarily as selves, but they are ways of social interaction with the game makers.

As Caillois (1961) puts it in his summation of mimicry, "the spectator must lend himself to the illusion without first challenging the décor, mask, or artifice which for a given time he is asked to believe in as more real than reality itself." (p. 23). In other words, the spectator must display a willing suspension of disbelief, or an active creation of belief. A further examination of just who the spectators are in CoH will follow in section 5.6 below.

Illusion is in fact a specifically theatrical term for confining attention to that which is meaningful and appropriate for any defined situation. In the case of virtual play spaces the reality can be easily defined as playful, since one enters into the illusion specifically for the purpose of play. A good part of the play in the virtual play space involves playing a role. The role can be envisioned as not only a character on

the screen, but as a way that players have chosen to present an idealized "self" whether that self is very like what he or she considers him or herself in the outside world, completely different, or somewhere in between.

In listening to the ways players talk about their characters it seems as though the characters or avatars are seen as at least extensions of the self (itself a highly mutable concept) in the outside world. In my field notes I often said "I" and "myself" when referring to my character. On one occasion I noted that my role was very different from myself, but primarily my terminology referred to character and self in the same way. Intermingling self and avatar is not unusual among gamers that I have spoken to casually. Their references to themselves often alternate between "I play…" and "I am…" It is also possible that my own alternate references to "I am…" and "I play…" represent an alternating stance between participant and observer.

Further complicating the idea of self in virtual play spaces Turkle notes from her research on identity on the Internet, "Players seem sometimes to talk about their real selves as a composite of their characters and sometimes talk about their screen persona as a means for working on their RL [real life]" (Turkle 1995, quoted in Panteli & Duncan, 2004). The way in which players talk about their avatars suggests that sometimes players make little distinction between playing and being…or at least playing and being overlap. While somewhat confounding, the way in which players identify with their avatars is not particularly surprising, since we are the initial creators of our online selves.

Just as in the outside world a player who has created the character he plays is likely to be concerned with presenting a particular image of self, leading to the

adoption of a particular style. Dramaturgy tells us that, even in attempting to present an ideal self, we may use non-verbal means, such as body language and facial expression that give other clues to the character of the people we are interacting with. There are no particular facial expressions in the world of CoH, and body language is limited to the use of powers and emotes, but there are still cues that give us a fuller picture of any character's online identity. We can see some idealized characteristics of an avatar by targeting him and seeing such aspects as character level and so on. However, players can unwittingly do things that are not entirely consistent with the "self" that they intend to present. Take for example my embarrassing episode in turning on the auto-run feature mentioned about in the description of a play session.

Further, the meaning of self is a construct created in social interaction. This assertion implies that individuality is a social rather than a psychological concept. This means that individuality or self is shared and interactive and emerges in conduct with others. It is not the presentation of the individual, but the reaction of others to this presentation that constitutes the self. This does not completely leave out the individual who enters the situation with a particular presentation and concept of self. Just as every action begins with a definition of the situation, every action also ends with a new definition of the situation, which result in new meanings for the actors. At this point the self may be reconstituted (Hare & Blumberg, 1988). In my experience in the game, the change may be permanent or brief.

In three examples from CoH, let me demonstrate concept of self as created in social interaction. First, often I found myself playing the same mission more than once, simply because I had been invited by another team that was doing the same

mission. There is no prohibition on completing missions repeatedly. One particular mission I played half a dozen times, each time with a different leader who defined our roles differently…or did not define them at all. New meanings emerged based on how the team was constituted and who the players were, but it was in subtle ways.

But on one occasion I happened to work with a group that was extremely motivated by gaining points to level up. I, on the other hand, had always been so intent on the social aspects of the game, that reaching higher levels was not particularly important to me, other than as a way to observe higher level players. But the other players on the team were so enthusiastic about making it to the next level, and even more important perhaps, assumed that I was interested in the same thing and treated me that way. Without thinking much about it, I accepted that definition and became the self that they assigned to me, at least for the duration of the performance. It was not until the play session ended and I was reflected on it, that I realized that my concept and presentation of myself had changed radically. What it meant to doing this mission and my place in it changed more completely than on any other occasion in the mission.

The second example is more permanent and has to do with the changeable relationship with the creators of the virtual play space. In order to provide what they consider more balanced game play. In virtual play spaces, balanced game play is intended to provide a system that does not privilege any particular archetype and makes the play space more equitable. Sometimes the strengths of powers are changed, resulting in a new concept of the best teaming strategies. The changes in power and the like, results in considerable changes in how players must present themselves and

interact with each other, thus creating a new definition of the situation and information about how the player must continue. Although the change in play balance may seem to be an imposed change strictly from above, automatically redefining the situation, there is also a social interaction with the creators in that the game's creators must then examine how the new balance plays out and change it again if necessary.

Finally, there is the interaction with the non-player characters in the game. These characters are clearly artificial, designed by the game creators to behave in certain ways, and yet they are a major part of the dramatic situation, and serve as the either the providers of the scenario or the antagonists of the piece (See figure 4.6). Even the citizens may fulfill the role of the chorus, emphasizing the action by comments and actions. How I will play my role or present or perceive myself will depend upon what the contact tells me about my last mission (often praise), what he or she tells me about my next mission (including whether or not I ought to seek out a team for it), and so forth. Where I have to go and the power and type of villains I meet will determine my presentation of self. For instance, while I feel like a fairly competent hero by this point, being alone on a difficult mission may put me in the position of hiding and avoidance, even though I do not prefer to present my ideal self as one who hides and avoids.

5.3.2.2 Teams

Since teaming is an important element of CoH, it is important to look at the teaming from a dramaturgical perspective. Goffman (1959) defines teams in this way:

> A team, then, may be defined as a set of individuals whose intimate co-operation is required if a given, projected definition of the situation is to be maintained. A team is a grouping, but it is a grouping not in relation to a social structure or social organization, but rather in relation to an interaction or series of interactions in which the relevant definition of the situation is maintained (p.38).

He says that individuals on a team will find themselves in an important relationship to one other. There are two basic components of this relationship, "First…while a team-performance is in progress, any member of the team has the power to give the show away or disrupt it by inappropriate conduct." Part of the appropriate conduct is observing the in-game etiquette pointed out earlier. Etiquette allows for teams to stay together with the minimum of friction, thus allowing them to operate more efficiently together. Since teammates find themselves in a bond of "reciprocal dependence" (pp. 38-39), they must be able to rely on or essentially trust other members of the team as they operate in their assigned mission. In research on trust within temporary teams in the workplace, Panteli and Duncan (2004) assert that, "…a temporary virtual team is characterized by discontinuity; it exists only to accomplish a specific task and then it disassembles." (p. 424) and so trust needs to be established early on.

Teams in CoH are much more temporary than most teams, sometimes lasting only a few minutes to a few hours. The brevity of the experience makes the initial bonding even more important than in most temporary teams. One of the ways that trust is developed in temporary teams is that the amount of information available and the

communication of the information to the team would increase the level of the comprehension of the situation and influence development of the bond of trust (Panteli & Duncan, 2004, p. 24). Because time is limited in the situation of a temporary team in CoH, members need to assume almost immediately an attitude of trust toward other team members and show their own trustworthiness as team members.

In an attempt to prove trustworthiness in a very short time the player must fulfill her role well and quickly in order to give the impression that she can perform her part in the team. Communication among members of a team is often vital to this enterprise. However, direct communication is not always necessary. One evening when playing with a temporary team I found myself quite surprised that a team could operate well without overt communication. I had observed and concluded that at least some chat was necessary to set the team in motion. I observed, "This team is very quiet, doesn't talk to each other much. Working well together though." I concluded later in my reflections on the subject that while it is rare, sometimes the communication is subtler. A team leader may lead by example rather than talk.

Much more usual is the situation which I described in this section of my field notes, "The team actually operates well together…I think the reason is that we are doing so well is that this team is all willing to follow the team captain's orders. In fact, somebody has just been warned that he needs to stay with the team. So I think this team captain is going to kick people, if they don't cooperate."

When team members fail to hold the line, or support the definition of the situation in a team environment, they are usually not publicly sanctioned. Rather the punishment or chastisement takes place after the failure, when the team is no longer

interacting with an audience or another team. However, in the case of CoH during a mission the only audience, per se, may be the non-player characters. In this instance there is no prohibition on such sanctions. In one particular instance, a player on my team was angry and bitter that the creators had made some changes that further encouraged teaming. This player insisted that superheroes in the comic books were generally loners, and that he wanted to be a solo player. He felt cheated that the situation had been redefined. His sanction could easily have been being kicked from the team, because kicking a team member is as easy as inviting one. But the team argued with him instead that he should accept the new state of affairs and work with us in maintaining the new definition of the situation. This conversation was the closest thing to a flame war that I was involved in as I studied the game.

The second basic component of a team relationship is that a team must co-operate to maintain the specific definition of the situation. The teammates come to recognize the others as being "in the know." A team should not be confused with other types of social groups, rather a teammate is one who must co-operate to foster a particular definition of the situation (Goffman, 1959, p. 39) In CoH this component may refer to the assumptions that members of the team that a player will understand the situation and other players (via costume, archetype, etc.) and be willing follow the team's leader.

Finally, I think it is important to note, as I did in the course of this research, another aspect of communication that builds trust and helps teams build a sense of familiarity in the absence of really knowing each other. That is presenting not only

trust and trustworthiness from the outset, but also other social abilities, such as sense of humor and the willingness to ask and answer questions of other team members.

5.3.3 Costume and props

In dramatic terms there are not only actors and roles but also others who contribute to the dramatic moment, the backstage staff who provide costumes, props, sets, direction, and the like. I discuss of each of the elements that contribute to the dramatic moment here. Costume, according to Stone (1990) "can be construed as any apparent misrepresentation of allowing the wearer to become other" (p.157). Becoming other is extremely important in a virtual play space, since part of the point is to be other. When I enter the world of CoH, I am doing so to become the superhero, just as I did when I put on the cape my mother made me and ran around the neighbor's backyard as we all played "Superman" or "Batman."

The costumers in this case are both the game makers and the players themselves. But, since the players are primarily or only on the stage, figure 5.3 shows the player in contact with, but only nominal in the backstage area. Figure 5.4 shows that there is however a link from the backstage to the player. The game's makers provide a wide variety of choices in attire, including colors, styles and some exotic additions all of which can be combined in numerous ways, making it highly unlikely that a player will ever meet his in-game doppleganger. Body types, as well as adjustments for particularly body parts, such as head, chest and so on are also available. I include body types with costume because in essence they are used in the

process of becoming other, just as any other element of costume is. The players get to design their body types and costumes, making them costumers as well.

As noted earlier, Blundell (2002) points out that many of the conclusions that players come to regarding others relate to onscreen appearance. In-game social connections occur on many levels, and are, to at least some degree, based on the meanings that players derive about fellow avatars/players in the context of the game world. The manual says that, "A hero's identity is tied to their costume almost as much as their name." (p.15)

In CoH a great deal of information can be gained by looking at the costume and appearance of other heroes. This allows for some predictability and understanding of how teams might work together in communal play, or reveals a redefinition of self by one player or another.

Some examples of the meanings that can be assumed from another avatar's costume and appearance are skills or perceived skills. Once during a play session I saw an avatar dressed as a doctor in traditional lab coat, complete with stethoscope. Although I never teamed with this avatar, I could not help wondering if he played a defender or healer.

A character's level, of course, also gives an understanding about skill, but there are some possible additions to costumes that give some information at first glance. For instance, if the hero has a cape he or she has completed a "cape mission" to earn that cape. These missions are generally quite involved and speak to the player's skill and persistence. There are also other costume elements that show that a player has completed a particularly difficult mission, e.g. at one point a player could earn a witch's hat by

completing a mission. Or if the player changed into a Warshade or Peacebringer form during a mission, she or he had reached level 50 and was likely to be able to play the game well.

But even in-game, appearances (proverbially) can be deceiving. Some of the inaccurate conclusions that I found myself making had to do with dress that I thought was incongruous, or that gave me the impression of a certain play style. For instance, if an avatar was designed as a "huge" (a body type like the Incredible Hulk) and wearing lots of spikes and armor, I would naturally assume he was a tanker, scrapper or blaster and would be very surprised to learn he was a defender (usually a healer). The other instance in which I got caught up in inaccurate or negative assumptions involved female avatars in skimpy costumes. This negativity about scantily clad female avatars is surely my own bias, but I often found it difficult to take such heroes seriously, only to find that they were far more talented than I. This reinforces Blundell's contention that we make many assumptions about other players or at least their avatars, based on their on-screen appearance.

5.3.4 Stage and Scenery—Setting the Mood, Framing the Action

Generally speaking a setting can suggest the appropriate mode of activity, which helps to determine what role the actor may play upon entering (Hare & Blumberg, 1988). In CoH the makers of the game design the stage and scenery. While particular pre-existing zones do not change, the geography still changes frequently with the addition of new areas to Paragon City. Sometimes the addition of new zones causes confusion for players as they search for the new locations.

It is in the creation of these areas that the creators of the virtual play space serve to some degree as directors, setting the mood for the play. It is the director in the world of the theatre who takes the work of the playwright and imbues it with his interpretation, and in this way he sets the mood and the staging. Various zones in CoH give clear indications of the kind of action that is likely to take place there. For instance, a hero is likely to meet other heroes for social interaction in the clean plaza near the statue of Atlas in Atlas Park. She is likely to meet the occasional mugger in the back alleys of the same zone, and extremely likely to meet all manner of ghouls in the gloomy area called Dark Astoria. Atlas Park is bright and sunny in the daytime and clear and dusky at night. Dark Astoria appears to be in a perpetual fog. All of this setting of mood is very similar to the dressing of a theatrical stage in which the audience is given clues as to what they will see by the mood and appearance of the stage as the curtain opens and the action begins.

Mood is one way to frame the experience; another is to examine it as providing a frame for the action. According to Goffman (1974) frames are created to answer the question "What is going on here?" One example of frames in a social environment is marking a shift between seriousness and play. Making the shift can be accomplished by virtue of word, gesture, or contextual marker, for instance. By entering the world of online video games, regardless how real seeming they may be and how serious some players may be about them, we are entering a play frame. As Rheingold (1991) says play is the first thing people do when they find themselves in a virtual world.


Illustration 5.1 – Two examples of scenery denoting mood in CoH. Taken May 2006.

5.3.5 Scenario or Plot

As was mentioned above in the comparison of CoH to Commedia dell' arte, there are scenarios provided in CoH. These are definitely provided by the game's makers, although in a quasi-personal way through the NPCs called contacts. The scenarios are called missions, and they allow for a wide variety of choices about how to play the role you have chosen. A player may play alone or team up, if you team up the composition of the team is likely to be different each time. You can play the scenario out more than once if more than one team member has that scenario in his list. Repeating a scenario often occurs as you move from team to team, or as members leave and others get added.

The scenarios are also pieces of a story arc. If the player does all of the missions for a particular contact she completes that arc and will be told details of the story and often rewarded in other ways. The story arcs are more like scripts, but a great many of the players do not choose to follow them in a linear fashion. Instead they choose to accept missions from several contacts at once and follow them as they

see fit. A player can have as many as three ongoing missions on her mission list at one time.

5.3.6 Audience

Someone who attends the theatre collaborates in the unreality on the stage by vicariously participating in the world portrayed on the stage by the dramatic interplay of the actors. Sarbin (1976, quoted in Hare and Blumberg, 1988, p. 49) lays out four functions of an audience. The first is *consensual reality* in which the audience accepts the role enactment as appropriate and provides validation for it. As the audience accepts and validates the role, as interpreted by the performer, they confirm the reality of the role and thus create social reality. Secondly, *cueing* is the discriminative response from the audience that guides the performer's enactment of a role. For example, in the outside world a facial expression of confusion may cue the performer that the behavior is ambiguous. An audience can also "cue in" the actor about the best course of action. Third, an audience has ways of demonstrating *social reinforcement.* They can display approval or disapproval of role behavior. In real life, and in game as well these demonstrations can be quite subtle. And finally, *continuous observation* serves to contribute to the maintenance of role behavior. When a player is under the constant surveillance of his teammates, it is difficult for him to adjust or change his role unless he leaves the team and/or joins another, since the audience, in this case the teammates, reinforce the current role. Each of these functions of an audience has parallels in the virtual play space to a greater or lesser degree. In examining the role of the audience it seemed relevant to divide audience into three separate categories:

audience to self, audience to action, and other types of audience. I discuss these categories further in the following sections.

5.3.6.1 Player as audience to self and teammates

As I suggested in Chapter 3, in my experience acting on stage I became familiar with the concept and practice of observing myself and observing my reactions to others, particularly during rehearsals. Goffman's works on the presentation of self (1959) and face-work (1967) describe much the same self-consciousness in the real world. The virtual play space externalizes this process so that I see myself and the other actors, costumed and on the screen, playing our parts. Unlike the original model shown in figure 4.5, audience is located differently in the virtual play space. It is impossible to view the action without logging on, and by logging on the player makes her avatar a part of the action. So, in figure 4.6 the audience is situated almost completely within the play space, and is in fact the same player playing both the role of the audience and the role of the avatar.

Sometimes, particularly when the parts we play from part of a mission, there is the pressure of others on a team, who serve as both co-actors and audience, to perform our roles in particular ways. First, we rely on one another to join in the consensual reality, to accept the situation as momentarily real, or at least real seeming, and support each other in so doing. It is important to be clear that my teammates are my audience as much as I am theirs.

Second, we since we do not have facial expressions and body language to cue each other with, we may use brief shorthand written cues, such as "???" or "huh?" if we are confused about a fellow actor's actions.

Third, an audience and a player can easily provide social reinforcement to one another by offering to play with the other actor again, congratulating him on a good mission or a level up, or asking about putting him on a list of friends.

Finally, as long as you are with one team with the same leader and composed of all the original players, it can be difficult to have much variation in how you play your role. However, whenever a player changes teams, or the composition of the team changes in any way, it is much like having a whole new audience. Even the player's own view of herself in the role she is playing will shift as the expectations of each team and mission shifts.

5.3.6.2 Player as audience to action in the virtual play space

In performing as an audience to action in the virtual play space, the player has very little effect whatsoever on the players in their roles. This activity is sometimes known as "lurking." Often players will lurk in order to observe how roles might be played. However, in most circumstances as soon as the player is in proximity of the enemies while watching other avatars, she is instantly embroiled in the action, and either logs out or becomes an audience to herself and an active audience to others.

5.3.6.3 Other types of audience

There are two other types of audiences to consider very briefly here. Both are types of lurkers, and neither has a significant impact on the game as it is being played. The first is one who lurks socially. That is the actor enters the game to attend social functions such as beauty pageants, dance parties, costume parties and other gatherings. While he participates in the gatherings and may have conversations with players in other roles, he does not partake of the main action or missions in the game. A number of players spend time in these activities, but judging from the forum discussions of social activities, these are a pleasant diversion, and rarely a player's only interest in the game.

And finally, there is the "kibitzer." That is the friend or family member who watches, and often comments as a player participates in the game. I include this category of audience because although the viewing takes place in the outside world, the commentary can have an effect on the player's role and how it is played. In this case we have the facial expressions and the body language of the watcher, besides the remarks that may reinforce or distract from the player's interpretation of his role.

5.3.7 Definition of the situation?

Definition of the situation is defined as "the meaning that actors attach to the setting (including the presence or absence of others)" (Hare & Blumberg, 1988, p. 154). Every action begins with a definition of the situation made up of all the elements mentioned above, such as role, costume, setting and so forth. When each action ends, by virtue of social interaction, things are not the way they were in the beginning.

There is a new definition of the situation built in the social interaction. It may be large difference or a subtle one, it may be long lasting or transitory, but we make meanings that help to guide us regardless of their magnitude. Some players choose to try to change the definition of the situation while other changes are arbitrary or even unconscious.

In the case of CoH, it is the creators of the game who perhaps have the most effect on the definition of the situation, even though they are unseen social actors to the gamers. In fact, it is possible that they have greatest effect *because* they have at least the control over the actors and elements that they built into the game. Their creation of the culture does not imply, however that the game's makers are the sole arbiters of the definition of the situation. Players invariably find ways to work with, or work around the creators to make meanings necessary to the definition of the situation.

5.3.7.1 A "broken" definition of the situation?

Definition of the situation is an important concept in both in children's play and in improvisational theater (Sawyer, 2001). CoH suffers from one possible flaw along in its initial and ongoing definition of the situation in Paragon City. That is that the creators define the virtual play space as a place corresponding loosely to the comic book scenario, and the characters are defined as comic book superheroes.

A columnist on an unofficial Web site asks, "Due to the fact that the game is ever so deliciously lathered in superhero mythos we can surmise that the mentality of the player base will likely embrace those standards. It is a high probability. So let's take a small glance at the comic book social structure. How big do those groups get?

How do they socialize with each other?" and he answers in this way, "Superheroes tend to stick to themselves if at all possible and only venture outside their small cone of influence if absolutely necessary. That is the norm, that is the standard. …Remember to keep in mind that super organizations in comic books are not the norm" (Through a hero's eyes, Currency of heroes, 2004, para. 3-4).

Comic book heroes, then, tend to be loners, or perhaps have one sidekick (that they are often rescuing from trouble), and yet CoH encourages players and in some cases requires them to team up in order to succeed. It is clear in all of the promotional materials that the option to team is available, but some regular players were very disturbed when the game's creators added a patch to require even more team play, as is evidenced by the story above about the team member who attempted to disrupt the definition of the new situation by complaining bitterly about the changes rather than taking part in the adjusted definition of the situation that the rest of us had accepted.

In this chapter I explained the link I perceive between information behavior in the form of sense-making and much of ELIS work and meaning-making through dramaturgy. I analyzed dramaturgical elements of the play space and described the meaning-making through the dramaturgical lens. In the next chapter I summarize and explain further some of the findings of the research.

Chapter Six— Summary and explanation of findings

In the previous chapters I described my experience and provided descriptive answers to the four research questions:

1. How are groups and/or peer cultures formed in the virtual play space of MMORPGs, particularly CoH?

2. How, if at all, do information behavior theories, meaning-making, and play theories, particularly in combination, serve to explain the phenomenon of group formation and maintenance?

3. What, if any, other in-game social relationships can be explained or understood in light of information behavior theories, including meaning-making, and play theories, separately or in combination?

4. What, if anything do in-game social relationships contribute to successful play, particularly in terms of information and meaning?

In this chapter I will examine what I consider the most important and unanticipated findings and give further description and interpretation of why, based on the models and methodologies used, I believe I may have found these results.

Finding	Description	Why it happened based on theories
Supergroups were neither as important in the virtual play space as anticipated, nor as active. (Q. 1 & 2)	Supergroups were not forming or playing together.	This seems to run counter to identity theories in play, so bonding and belonging are not a major factor in group creation. Definition of the situation as play, or as representative of the superhero mythos may be broken.
Temporary teams are important as groups to study in this virtual play space. (Q 2, 3, & 4)	Teams were formed more often, and it was not important that they were not members of the same Supergroup.	Power consolidation took place in teams. Teams and definition of the situation from dramaturgy Information practices were important in team situations.
Social relationships occur not only among the avatar/players, but social relationships also exist with the creators of the virtual play space. (Q. 3)	Non-Player characters and rapid changes in environment, being available in official forums, and being players themselves make social exchange with the makers evident.	Information practices explain some of the ways we interact with game makers, and lead to modifications of dramaturgical model.
Interface both adds to and distracts from information seeking and immersion in the virtual play space.	Interface is necessary, but it blocks the "fourth wall."	Information practices are an important element in the interface.

Table 6.1 shows the 4 most interesting findings in the study with a brief description of the finding and the theory to explain

6.1 Supergroups Were Neither as Important, nor as Active in the Virtual Play Space as Anticipated

There seem to be two reasons for this finding based on the theories and rhetorics considered as a framework for this dissertation. First, bonding and belongingness are not necessary to meet the social and instrumental needs in the play space. Second, when a Supergroup begins to put too much pressure on the player, the definition of the

overarching situation, that of play, changes and different meanings emerge that do not encourage the player's ongoing membership in the Supergroup.

One reason for this finding may be that the need for bonding and belongingness suggested by the identity rhetorics is not very important long-term in this virtual play space. It is easy enough to find a group to finish a mission with, and while Supergroups may be a good place to chat with others, and to get information, there is no a great need to be an insider, most questions can be answered in temporary teams or in forums away from the game. It also requires little to become a part of a Supergroup or to leave one, which does not lend itself to bonding as an insider.

Certain types of Supergroups may defy the definition of CoH as "play." In this dissertation I have framed CoH as a virtual play space. That is, for the purposes of this research "play" is an overarching definition of the situation. When the activity is no longer play to the participant, as is in true of some Supergroups, the player makes a new meaning regarding the situation such as, "this isn't a game anymore, it's work," and thus chooses not to play in such a demanding way, or discontinue playing altogether.

6.2 Temporary Teams are Important as Groups to Study in this Virtual Play Space

It is especially important in a make-believe environment such as the virtual play space to maintain the definition of the situation. In order to maintain the definition of the situation several things are necessary. Goffman's concept of teams is a set of individuals who must co-operate if the definition of the situation is to be

maintained. A team, then, is a grouping in relationship to an interaction or series of interactions that maintain the relevant definition of the situation. If, again, we are going to maintain the immersion in the make-believe environment, then we must maintain its definition of the situation, the superhero world, where heroes have to work together in order to accomplish the appropriate ends, such as performing missions and defeating villains.

One of the things required to defeat the enemies is the consolidation of power, whether it is offensive or defensive, in order to complete a mission. The game's creators have even seen fit through the practice of giving us information by proxy to intimate that any particular mission will require the consolidation of power. Although it is possible to play solo, it is easier, especially with some changes that have been made by the creators, to team up to finish a mission. Some players seem to believe that needing to play on teams at all constitutes a faulty definition of the superhero situation. Others, even though they may prefer to play solo, can accept the need for teaming as an appropriate meaning, and still others see it as perfectly appropriate.

Information practices and information behaviors were very important in team situations. Much could be learned in teams that added to the possible success for the player. For instance a player could find out a great deal about how to play with other archetypes in teams simply by actively scanning, or even non-directed scanning. Also, more experienced team members could offer information by proxy. For example, one of my catch phrases in difficult situations became "run the walls and try to stay out of trouble." A team member not only told me this, but showed me how it was done. Running the wall became a tactic for me even in solo play, so I obtained information

in a social interaction that aided me through the whole game. The game makers also provide information by proxy in the team situation.

Finally, it cannot be ignored that more rewards are available to players in teams than solo, since everyone earns something from each player's defeat of a villain. If the concept of earning rewards were important to a player, she might accept a team on the basis of its being defined as a means to earn further rewards. In this example, both individual need and social meaning are important. The player must first determine that increased rewards will solve a problem or be important in some way, then find a method, such as actively scanning for a team, to enter into a situation she defines as one that will allow her (through the auspices of the game creators) to gain the desired rewards.

6.3 Social Relationships with Game Creators

While dramaturgy is generally a descriptive rather than an explanatory methodology and theory, the data indicate that it is useful to look at the "deliberately created" nature of the play space and to consider the game's creators as social actors in its environment. In the initial conception of this research the creators were overlooked except as a sort of "clockwork gods" who put the game out into the world and then collected the money. It became increasingly clear that the illusion created between the players and the creators was both far more complex and far more important than I originally believed it was. Dramaturgy provided a useful framework to begin to describe and explain the web of relationships in the virtual play space.

Through the model of information practices, I was able to see ways in which the player was interacting with the creators in ways that went beyond the bounds of my original assumptions. When I began to examine the ways that players found the information to succeed in the game, I saw some things that seem in retrospect to be completely obvious. For instance, most of the information needed to play the game must be given in-game. This is all the more obvious as I am aware from my talking with gamers throughout the time that I was a professional in the game industry that players do not go to the obvious sources, like the manual, first. The reliance on in-game "personal" assistance is certainly consistent with Dervin's countering of the dubious assumptions of the previous models (see the "myths" in Chapter Three pp. 53-54) of information seeking and use. The finding is also consistent with Zipf's principal of least effort, in the sense that it takes effort to read the manual before starting.

Given the fact that the information had to be available in-game, the creators had to find ways to provide it. By their understanding of the players as in need of information the creators provided much needed information by proxy. Much of this type of information came through NPCs and through play-by-plays in the chat windows, but some of it came, unbeknownst to many players, from game creators who played their own games. While I am not aware that I played with any particular avatar who also was a game creator or worked at NCSoft in some capacity, I do know both through contacts in the industry, and through some conversation in the forums, that it is very much a possibility that a player could find herself unknowingly playing with one of the game's creators.

CoH has the reputation of having game creators who are very involved with the community so it is not at all uncommon for one of them to post in the game forums, mostly official ones. They do not use their real-world names, but they are openly acknowledged as members of the team that built this "deliberately created culture."

Further, the dramaturgical model describes many ways in which creators are a part of the virtual play space, and have a social relationship with the players in it. They provide and program the antagonists and NPCs, they write the scenario and provide the definition of the situation, they give the player a wide variety of costumes and props with which to create a role, they set the mood and individual frames. They add to the geography of the city, add new villains and change the physics of the powers, some of the changes in response to player requests and complaints. Further they do not only interact from afar but are also present in the game world as full participants, or perhaps as participant observers, but certainly in interaction with the players in a direct way. In the forums they also offer themselves for unexpected social exchange.

6.4 The Interface: Adding to and Distracting from Information Seeking and Immersion in the Virtual Play Space

The interface offered a number of items that were necessary to the operation of the player in the virtual play space, and information practices could be used in regard to the interface, for instance active seeking by opening and using maps, contact lists or mission descriptions. Active scanning, as opposed to active seeking, is often used to

keep track of endurance, experience and so forth. Many of the interface elements are conventional to game interfaces, which tend to be somewhat complex.

While I cannot explain this finding dramaturgically per se, since it is not overtly social, I can compare it to a theatrical convention. In the traditional play on the stage, there are three walls on the set and the open side that we are looking through. That open side, the fourth wall, is intended for the audience to look through and enter into the experience. The fourth wall can be maintained, or broken, such as when an actor speaks directly to the audience. But in the literal sense it is not something that is blocked. The play does not take place entirely behind the curtain. The problem with the interface, then, might be construed as a clash between the game interface convention, and the theatrical convention.

This particular finding is likely to be more evident to people who are not long-time game players. I find it particularly interesting as someone who was highly motivated to have an understanding of how to function in the virtual play space. The interface was, at first a major obstacle to participation. It may be a matter of not having the ability to switch in an out between the seemingly real and the obviously artificial quickly enough. However, I found it extremely frustrating that there was a 2D interface that I needed to have to play the game, but it blocked me from seeing the 3D space that I wanted to enter.

6.5 Summary

In this chapter I have explained what I consider to be the most interesting findings of this study. The final chapter is a summary of the research.

Chapter Seven—Conclusion, reflections and suggestions for further study

7.1 Summary of the Research

In this study of the virtual play space CoH, I began with the assumption that players of City of Heroes would develop the type of clans or guilds discussed in the literature regarding online games or virtual play spaces. I was interested in how such groups were formed and if information behavior and meaning-making theories in combination with theories regarding play from a variety of disciplines explained group formation. I discovered my assumption about the prominence of Supergroup formation were essentially wrong, but that information behavior and meaning-making could describe and to some extent explain the formation and successful play of smaller temporary groups.

The questions of group formation and maintenance were the initial focus of the research, but as the observations continued other questions emerged involving information behavior and meaning-making around the cultural and social qualities of the virtual play space. I considered the virtual play space as a deliberately created culture comprised of real seeming and obviously artificial elements, as well as some that fall into a category that seems neither real nor artificial, but instead lies somewhere between the two. I considered sociality, spatiality, and emotion under the rubric of real seeming. The primarily 2D interface that included player controls and signals were obviously artificial. I found that some of the same information practices operated in the virtual play space similarly to the outside world.

Finally, the game was considered as a deliberately created culture, just as formal theatrical performance can be considered a deliberately created reality. Therefore, I examined meaning-making through a dramaturgical lens. I studied the elements of role and self, teams, costumes and props, stage and scenery, scenario or plot, and audience regarding their role in making meaning in CoH.

7.1.1 Anticipated and unanticipated results

I did not anticipate most of the findings of the research. As mentioned in Chapter Six, the fact that Supergroups did not seem to have as much a role as I anticipated was completely unexpected. This apparent lack of importance in Supergroups may be a function of the time in which I was studying the game, because the situation seems to be changing with the addition of City of Villains. I therefore began with the expectation that I would be concerned with the concepts of play as a means of bonding and belonging, and doing so by presenting themselves as insiders through uniform, naming and so on. Conventions of name and dress in such groups would serve not only as a means of bonding, but also as a means to inform others about the status of Supergroup members as group insiders.

The findings about Supergroup formation tended to disagree with much of Yee's work on MMORPGs. In one study Yee (2001) found that a majority of his respondents belonged to guilds. Some of the disagreement may be due to differences in virtual play spaces studied, since Yee's studies were not specifically of CoH. In any event my work offers another view of group formation in comparison to his.

Another type of peer group formation that did appear to exist was the groups of people in the outside world who bonded over their interest in games. This was not entirely unanticipated. Further, by spending time with this type of peer group, I was putting myself in a position to learn about the subject of virtual play spaces through means such as active scanning. Attending and presenting at conferences also put me in a position to meet with people with similar interests and an information neighborhood where I might learn something even in social situations where information seeking was not necessarily the intention. From a dramaturgical perspective, these group interactions could be seen to take place completely off stage, because they were completely offline. They were, however, related to the dramaturgical space by virtue of mutual interest in that space.

The relative importance of temporary teams in relation to Supergroups was unexpected, although some research (Jakkobsson and Taylor, 2003) has been done showing that teams are often important. The information encountered or offered, and the meanings made in the team environment, were highly pertinent to success in the game. It did seem here that the power theories in play were important in teaming, because this seemed to be the part of the experience where power needed most to be consolidated. There was also a sense of belonging on these teams, albeit for a very brief time.

The amount of social interaction with the CoH's creators was a surprising finding. My initial concept about the creators was that they owned the game because they had created the virtual play space with code and graphics, and because I had to pay them to play in the space. Even though I was aware that they could make changes

to the space at will, sometimes drastic ones, I had a conception of those changes as not so different from jarring events in real life. I had a view of the creators as the clockwork gods who might meddle now and then, but had mostly set the world in motion and only added to it every now and again. However, they were socially present both inside and outside the game and had a particularly large effect in the making of meaning in and about the space.

Another finding that was both anticipated and unanticipated was the way in which the interface both adds to and distracts from the game experience. I anticipated difficulty with the interface because I had not played this game before and because I had not played a game with such a complex interface before. The unanticipated result was the extent to which the conventions of the game interface were necessary in order to play the game and thus become immersed, and at the same time the amount to which the interface got in the way of the experience. I finally cast the problem of interface into one of blocking the fourth wall as opposed to breaking the fourth wall, a somewhat different conceptualization from that of Wilson (2006) or Johnson-Eilola (1998). Another unanticipated finding was that the virtual play space could not entirely be studied as a culture in its own right. The rapid changes not only to geography, but to how the player powers and so on operate, highlight a deliberately created nature, more like theater than culture, or perhaps somewhere in between. One example of what makes the environment highly theatrical is the existence of an intended audience or audiences. The dramatic also encompasses play theories regarding self and make-believe. These visions of play I did expect would be important.

7.2 Reflections

7.2.1 My sense-making about the experience of doing the research and how it led me to the specific analytic models

It is important to understand that in any study we are both an object of and the agent in the research. And so, throughout I was making meaning or sense-making about my observations, my reading, and my conversation. The things I chose to watch and report on, and what I found are all a result my interpretation of the interpretations of others, and myself in relation to others.

In order to make sense of the experience I need to examine my assumptions and try to determine where they led me in the course of the research. I started the research with the assumption that peer cultures developed around play were going to be an important part of the game. I believed Supergroups, like clans or guilds in the games I had read about and studied before, were going to be an essential feature of game play. I also believed that because clans, guilds and so forth in other games are very tightly bound identity-related play rhetorics that emphasized bonding and belonging would serve in large part to explain how groups were formed and maintained. I also thought that rhetorics of the imaginary, the self, identity, and perhaps power would be important. I believed that both cognitive and social theories of information behavior and meaning making could be used to explain how social formation and maintenance operated, and that CoH could be viewed fairly straightforwardly as a culture in its own right. I envisioned that a model might be built that would incorporate play theory and information behavior theory.

I found that Supergroups did not form or operate as expected, and I needed to re-evaluate my assumptions and my questions. I found that there were other questions

that had been raised in the process of examining Supergroups and that the new questions also had social underpinnings. My discovery of the importance of temporary teaming led to a change in focus out of which my other questions evolved. Temporary teams were also easy to form and also served, less formally, to allow group to complete a mission that was difficult to complete solo. In watching how these groups operated, I began to see a more fertile venue for examining meaning-making and play theory in the virtual play space. I viewed temporary teams as social groups, and so I also began to think about how and why other in-game social groups form for the short term, and how they seek and use information and make meaning.

I took another look at what I consider to be the cultural landscape of CoH and found that it can be cast as seemingly real and obviously artificial. As I moved through the description of the virtual play space in this way, it seemed to me that it was more theatrical than cultural, more constrained and deliberately created (and rapidly changed). Also, working with MacKenzie's (2002) model and considering some of other literature on how we tend, as humans, to find and use information particularly in the context of everyday life, I discovered that there was one more social interaction taking place. We were interacting with the game's creators in a much more intimate way than I had assumed. In fact, my assumption in the beginning was that we could ignore them, for the most part.

Importantly, as I moved from the concept of CoH as a culture, to something with a more theatrical nature, I conceived of a model of information behavior and meaning-making that was all micro-sociological and ranged from more cognitive to more social in nature, that allowed me to make meaning of the situation myself.

My initial and follow-up questions were cultural and social probably due to my interest and background in sociology. For this reason also, I ended up with micro-sociological information behavior and meaning-making models as a basis for analysis. Because I have a background in drama, the dramaturgical model seems a logical, if unanticipated, choice as an analytic lens. I made decisions in iterative process of the research to adopt these methods and models. These decisions were strong ones because I was in a unique position to understand and make use of the tools they afforded me.

In retrospect, perhaps the most important outcome of this research is the method of analysis. The use of dramaturgy as an approach to meaning-making in the field of information science is unique in my experience. I believe that its use, particularly in conjunction with other more traditional understandings and analyses of information behavior may create new insights into user behavior.

7.2.2 Entering into the values of the virtual play space

As mentioned in Chapter Three I believed that it would be impossible to observe without participation, because even observation requires some significant personal involvement. In fact, in terms of this research, as soon as I was close enough to observe any action I was practically in the middle of it.

If I were to make any meaning about player's information behavior and meaning making it was important be a player, as well as watch players. A native understanding was an important part of this research so it was as important to be the insider as to be the outsider, and I found myself moving back and forth frequently.

The insights gained by entering into the values of the play space were valuable as I reflected on and made sense of the game and the players.

Table 7.1 below notes and describes some points in my experience of the game at which I "went native" and became a player, rather than a player/observer. The column headed "How did it happen?" is based on later reflection on these moments.

What happened?	When did it happen?	How did it happen?
Avatar choices and naming	During character creation	Even as early as this, I was involved in creating an image that would allow me in my own style, which included, but was not limited to the need to be able to observe
Began to feel a need to level up	Started before I reached Level 5 and could enter the Hollows. Once I had met that goal it subsided for some time, but seemed to recur whenever a current zone was repetitive and I wanted to enter a "forbidden" zone. I never became what is called a hard-core player, whose main interest is leveling up, but I did have recurrent moments of wanting to level up.	It seemed to happen in a couple of ways. First, getting the kudos of teammates and NPCs for leveling was satisfying. Second, at least once, and possibly more, I found myself with a team whose main goal was leveling. It was their topic of conversation and seemed of paramount importance. At first, in order to fit in I entered into the conversation. In a few brief moments, I found myself caught up in the enthusiasm and suddenly my need to level up became very strong
Some proficiency with the interface	I never became as proficient as many players that I am aware of, but I did become more efficient after about 2 months of playing. I believe for many people it may be a matter of days or weeks.	This was a hit or miss process at first. I found that I must learn to do this well or I would not be able to effectively observe the game, and so I made a concerted effort to learn to use elements such as maps more effectively
The use of maps as part of the interface	When I was playing solo at about level 4	I was repeatedly doing the same mission in the sewers and I was getting bored with not defeating it. I discovered by trial and error that a mission map would show me where I had been and more importantly where I had not been. I also discovered that baddies could come at my avatar from behind the map.
Learning the language	The process started from the moment I first interacted with the other heroes. I had the advantage of knowing a large number of "chat room abbreviations," but there were a great many that I did not know.	This mostly happened by observation and guessing. I noted that I didn't often ask directly as I didn't want to be seen as "a clueless newbie"
Using the language in my field notes	A pun appears in my notes that makes use of gamer language, uses the term "mad skillz." I was around level 10 at the time	This was in interesting incident. First it denoted that I could use even the slang in the language, and that there was indeed a specialized slang in the language. But more importantly as to how deeply I had become a player, I did not type the pun in a chat room, or write it in notes. The game (and "gamer speak") had become such a part of me that I spoke it out loud.

Table 7.1 – Examples of entering the game space or becoming a "native"

7.3 Trustworthiness and Transferability of the Research

Two of the hallmarks of good qualitative research are trustworthiness and transferability. Establishing trustworthiness and transferability in such an anonymous environment is a necessary challenge. In qualitative research it is important to consider whether we have an authentic account that makes sense to our readers. An authentic account should provide a vicarious experience for the reader. There were four readers who served both as member counterparts and as peer debriefers. Of the readers, three of the four had played in CoH and/or other virtual play spaces. Three of them were academics of some kind. Some of the academics were also players in virtual play spaces.

7.3.1 Readers' commentary

The readers, peer debriefers and member counterparts, were asked for commentary on the whole work. They provided thoughtful critique and suggestions, all of which I carefully considered, and some of which were then incorporated into the research.

The readers agreed that the description of the play session was thick enough to provide a vicarious experience. The one who had not played in virtual play spaces especially remarked that he got a sense of what it was like to participate. Another of the readers who had played in CoH recently remarked that he had been involved in a similar mission in the Hollows during his play experience. Another who has been an avid player in a variety of play spaces said that he found that the experiences and

interactions throughout rang true. I found their remarks particularly confirmed the authenticity of the account.

I was also concerned about the clarity and usefulness of the methods and models I used for analysis. All of the readers remarked about the methodology, and all seemed to find it clear. Some of them remarked on the novelty of dramaturgy as an approach but seemed to find it appropriate. Several constructive suggestions for refining the method for the next project were included.

7.4 Further Research

This dissertation only begins to examine many play-related, information-related and social aspects of virtual play spaces, particularly CoH. Further research might reveal other aspects than those discovered here. Further, the research was constrained by server, type of play, type of mission and the choice not to purchase and install the add-on City of Villains due to its late arrival on the scene. Future research on COH with the add-on could show whether other types of play, primarily PvP (player vs. player), change the dynamic of Supergroup formation. Such research could itself offer a shift in meanings and definitions of the situation, and might be informative about how players made meaning from such a shift. Further research on information behavior and meaning-making in CoH at this time may also demonstrate whether CoV is revitalizing the Supergroup structure.

Research on other virtual play spaces using similar methods of study and analysis would be of interest. The study of such virtual play spaces might better answer the initial research questions involving formation and maintenance of peer

cultures, however it would also be worthwhile to see how transferable some of the findings might be to another venue. The application of dramaturgy, combined with ELIS or sense-making as a methodology for the study other types of social information environments, formal and informal, would be useful. Possible venues for such research would be support groups (any group in which people gather to support one another, generally around some issue) and physical or virtual areas where people gather and share information, even though information seeking is not perhaps the primary purpose of the gathering place. Venues such as the common room in a hospital rehabilitation center, a bar, among others, would be appropriate for this research.

Another avenue of further research is the exploration of the concept of the real seeming vs. the obviously artificial in video games, including virtual play spaces and how they each effect immersion in the environment. Research into elements promoting immersion could be important to both game makers and educators for different reasons.

Johnson-Eilola (1998) noted that children do not seem to easily negotiate complex interfaces in which many types of information are incorporated rapidly into decisions. It seems to me that these young people (and some older ones) are increasing attuned to playing in this way and, therefore, to seeking information in this way. The possibility of a new way of seeking information suggests several lines of investigation regarding the provision of information in arenas other than virtual play spaces. For examples, how can information professionals provide information in an engaging way? How can we kindle interest in more traditional sources of information, and

should we try to do so while preserving what some might consider the "essence" of the traditional source?

While dramaturgical analysis emerged as appropriate for this research, many other types of examination of virtual play spaces have already been done, and others are just beginning. Some examples are Castranova's (2001) work in economics, and Yee's (1999, 2001, 2002) in psychology. Furthermore there are other ways of gathering data that were not used in this research. For instance the use of talk-aloud protocols for a number of players, recording, and/or screen capture to examine what a player might be doing as she plays would almost certainly give a different view of the virtual play space than approaching the study by way of the avatars. Lisa Galarneau (2006, http://www.socialstudygames.com/) is doing research at the University of Waikato in New Zealand using standardized questionnaires and observations of specific players as a model for social behavior research in CoH. Yee's work in psychology is based on questionnaires also. Well- known researcher T.L. Taylor (Taylor, 2003: Jakobsson and Taylor, 2003; Taylor, 1999) uses a variety of methods including interviews and participant observation to study participation in online games. All of these methodologies plus others may yield important, yet differing results. As virtual play spaces of all kinds continue to expand to greater audiences, there are likely to be many areas of research as yet unimagined.

APPENDIX I: DESCRIPTION OF ARCHETYPES IN CITY OF HEROES

Archetype	**Game Creator Description from Game Manual**	**Player description from CoH Gameamp forum**
Tanker	The Tanker is the "big man" of the hero world, combining massive defense with a powerful, but not-exceptionally quick offensive punch. Tankers make effective solo Heroes, at their own deliberate pace, but they are also in demand by teams, where their function is to keep enemy attacks off the lightly defended Blasters, Controllers and Defenders. 8	**Meat shield**. They take the hits and make sure that everyone in a mob is paying attention to them (they hold the aggro (aggression/attention) of all the enemies). They have enough hitpoints to survive most battles alone, but not enough damage to always kill everything before they themselves die. Essential for battles with large numbers of enemies at and above your level.
Blaster	Blasters specialize in delivering massive damage at range. They have very little defensive potential, other than the ability to keep the enemy at arm's length. A Blaster can solo successfully, if he remains aware of his situation at all times, but this archetype really comes into its own in groups, where Defenders, Scrappers and Tankers can take the brunt of the enemy attacks, freeing the Blaster to use his offensive potential to its fullest.	**Damage dealers.** These are snipers of the game. It's not glorious, but their job is to hide and fire, not draw attention and to NEVER jump into the middle of a mob. They need to stay away from the action and unload lethal damage from afar. **NOTE**: A blaster will pretty much die (and often does) as soon as an enemy notices them, but most blasters I've played with don't seem to know this. Of all types in the game, I've seen blasters die more often than all other characters in a team because they fire on a crowd before the tank has their attention or because they won't stop firing and run when they start to lose significant life.

Defenders	The Defender's powers focus on healing allies, increasing their abilities and decreasing foes' abilities. The Defender has little offensive or defensive punch of his own, but can radically increase the effectiveness of even the smallest team up, and he, the Controller, and the Blaster have the only ranged attacks. The Defender is a suitable archetype for grouping, though soloing is possible. Difficult, but possible. However, the tremendous usefulness of Defenders' powers should guarantee that they will always be able to find a team up to adventure with.	**Healers**. I really like defenders because they have a good balance of attack/control and healing/support powers. They are very versatile, but for the most part, they are your healers. A team depends on the defenders to keep healing, passing out ispirations (too large a topic to explain here), and debuffing (weakening) enemies so that the rest of the crew can focus on their job instead of watching their health and trying to stay alive. A really good defender knows to only use their attacks when soloing or when the team is fighting weak mobs. During tough battles, the defender should only be doing support actions so they don't draw aggro and die.
Scrapper	The Scrapper specializes in hand-to-hand combat. A single Scrapper should be a match for several foes of equivalent level. Scrappers do not deal in ranged damage, instead going toe-to-toe with the enemy. Their balance of offensive and defensive potential makes Scrappers by far the best suited archetype for solo play. In team ups they are useful as front-rank fighters, but often find themselves a bit overshadowed by the more specialized Blasters and Tankers.	**High damage, medium hit points**. The scrapper's primary job during a team battle is to add damage to what the tank does and take out the problem enemies quickly. They will often focus on bosses because of their ability to take enemies far above their level and are also important for protecting the squishies (low hit point characters) from enemies that for whatever reason aren't paying attention to the tank (or being held by the controller).

Controller	The Controller specializes in manipulating the actions of foes, causing them to stand immobile in battle, or controlling their movements, or even turning them against their allies. This is perhaps the most challenging archetype to play, but potentially one of the most powerful. Controllers have very little defense against enemies not under their direct control. A Controller who wishes to adventure solo must do so with extreme caution. The archetype really contributes as part of a group.	Controllers are one of the two types that require teams (early on anyway) because they are so squishy (low on hit points). They do crowd control and with a strong controller, you don't even need a tank because the enemies will be frozen, confused, held or whatever. They have almost no hit points and should never focus on offense until later levels or when the crowd is firmly under control or they have the ability to summon pets. Controllers are great support characters and will often take teleport, resurrect, healing, or other team powers (The Story of a casual gamer who played CoH, posted 7/26/05, archetype roles para. 5).
Warshades/Peacebringers	There are more Archetypes in City of Heroes than are listed here (above). These other archetypes are called "Epic Archetypes" and must be unlocked through game play. …An example of Epic Archetypes in City of Heroes are the Kheldian Peacebringers and Warshades. These are aliens who inhabit the bodies of normal citizens granting them awesome powers. Peacebringers and Warshades are unlocked for use once you get to level 50.	"Flying Squiddy Blasters." Basically they're blasters with flight and a bunch of nifty, unique powers from level 1. You can only play them if you get a character to level 50 first so you can USUALLY assume that anyone playing one of these knows how to play the game. However, in my experience, PB and WS players are one of two types: one of the most patient and friendliest team players in the game, or dumb as a post. Treat them as a blaster as far as team play goes.

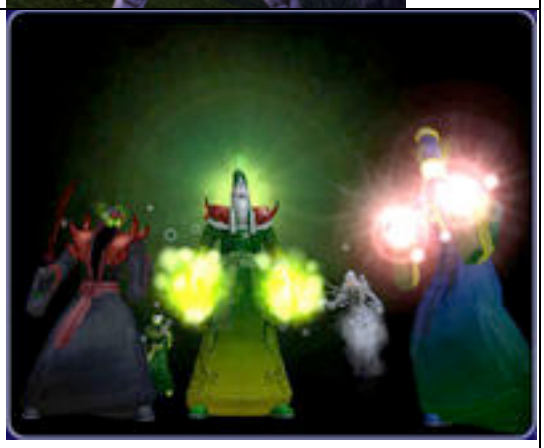
Table A.1-City of Hero archetypes and descriptions

APPENDIX II: DESCRIPTIONS OF ORIGIN IN CITY OF HEROES

Origin	**Definitions from game creators found in the manual**	**Definitions from http://en.wikipedia.org/wiki /City_of_Heroes_characters**
Natural	Natural Your origin involves no mysterious forces or secret discoveries; you have simply used your remarkable talents to train yourself to the very pinnacle of human potential.	Natural heroes train themselves to surpass normal human limits. It's also possible that a Natural isn't human at all, and their "powers" are simply their own natural abilities, like an alien who is part of a race who all have the same powers. Superman from DC Comics and The Punisher from Marvel Comics are both examples of this.
Mutant	Perhaps your parents were exposed to strange radiations, or maybe it's just the next leap forward in evolution, but your powers were encoded into your genes before you were born. Science Exposure to chemicals, radiation or some other scientific process has left you changed, with new and mysterious abilities far beyond the mass of humanity.	Mutant heroes have unique genetic structures that they are born with. Cyclops of the X-Men and some of the DC meta-humans fall under this class like Fire from the Justice League
Science	Exposure to chemicals, radiation or some other scientific process has left you changed, with new and mysterious abilities far beyond the mass of humanity.	Science heroes gained their powers as the result of a scientific process, intentional or otherwise: e.g. Radiation exposure in a test lab. The Flash from DC and Spider-Man from Marvel are both examples.
Technology	Unlike Science Heroes, whose bodies have been permanently changed by exposure to natural forces, as a Technology Hero you carry unique and advanced devices that allow you to produce superhuman effects.	Technology heroes often have no true powers as such, but instead use an array of advanced devices. Iron Man from Marvel Comics and Cyborg from DC are examples of this origin.
Magic	"There are more things in heaven and earth" ... supernatural forces are abroad in the world, and either through training and discipline, or simple chance, you have become a human nexus for them. Choose your Origin and Archetype	Magic heroes gain their powers from a Supernatural source. Doctor Strange from Marvel and John Constantine from DC reside in this category

Table A.2 CoH origins and descriptions

APPENDIX III: SELECTED ENEMY GROUPS IN CITY OF HEROES

Enemy Group	**Description (from wikipedia) http://en.wikipedia.org/wiki/City_of_Heroes_enemy_groups**	**Screenshot (from gameamp) http://cityofheroes.gameamp.com/coh/viewVillains**
Banished Pantheon	Lead by Adamaster this group of the true undead of Paragon City (in contrast to the scientific undead of the Vahzilok). Animated corpses, shamans, mask spirits, and the powerful Totems make up this mid-level group	
Circle of Thorns	The most prevalent of villain groups in Paragon City, the circle can be encountered from the early levels all the way through level 50. At lower levels mostly mages and human guards are encountered, but at higher levels various summoned demons and behemoths are found among the circle as well. Mystics seen around the city chanting and conducting arcane rituals, often involving unwilling subjects. The circle controls a vast city named Oranbega, buried deep beneath Paragon City.	

Clockwork	Windup robots found all over the lower level zones of Paragon City as well as some places in the Rogue Isles. Most often seen scrounging for materials and working to build more Clockwork. All are telekinetically controlled extensions of their leader, the Clockwork King. The Clockwork King himself is a powerful cyborg, with little more than his brain left in a massive Clockwork robot suit. He is able to use a good amount of Telekinetic powers to fight, though he does use the immense weight of his suit to attack also. The Clockwork in the Rogue Isles are believed to be too far away for control by the Clockwork King, but the power controlling this offshoot of the Clockwork is unknown to most people.	
Devouring Earth	Humans mutated by the avenging wrath of the earth, this mid to high level enemy group is made up of creatures made of stone, crystal, wood, fungus, etc. The Hamidon himself is a gigantic amoeba-like creature that takes careful strategy and dozens (or more) of high level heroes to defeat.	

The Family	"The Family" is a mafia gang. They are a group of typical 1920s-esque pinstripe-suit-wearing gangsters, complete with tommyguns (which, logically, would be too outdated to be of any use). They are also at war against the Mooks in City of Villains. Also in CoV, they're sometimes found in gunfights with other factions--they seem to be particularly fond of gunning against the Lost and Hellions, though they've also been at odds with the Council and Circle of Thorns.	
Freakshow	Cybernetic "Freaks", the Freakshow is a street gang whose members build up their bodies with bizarre and garish cybernetic implants. Thrill seekers, the Freakshow often hold contests among themselves for which faction can complete the most complex crimes. A mid-game enemy group.	
Hellions	A low level street gang. Though the bosses gain the ability to throw fire, the lower ranks rely mostly on common, mundane weaponry, e.g. pistols, shotguns, baseball bats, sledgehammers, knives, etc.	

Hydra	Inhabitants of an alternate dimension that have become trapped in Paragon City due to the Rikti. The hydra are basically animated blobs of matter. They are first encountered at low levels in Perez Park, and are not seen again until the higher levels of the game in the Abandoned Sewers. The Hydra itself is rumored to be down in the sewers. It's able to send its tentacles around the Abandoned Sewers looking for a Hero who was foolish enough to come down there alone.	
The Lost	A low-level to mid-level group. Homeless people that have been "recruited", often unwillingly. Unknown experiments have been performed on them, mutating them in ways visible and not so visible	

Outcast	A teen level street gang. Members are mostly mutants with elemental-based powers. The Outcasts were founded by Frostfire, who was originally a hero but turned to crime instead. The Outcasts' main enemies are the Trolls, although the Tsoo are a close second. The Outcasts occupy Steel Canyon areas and areas in the Hollows, where they and the Trolls go at it. They have elemental powers, with each member aligned with one element. Their pre-members, however, use guns similar to the Death Heads and Fallen of the Skulls and the Hellions.	
Sky Raiders	This mid level enemy group is mostly high-tech thieves and goons for hire. The group was formerly employed by the U.S. military during the Rikti War, but was abandoned in favor of heroes and has since resorted to crime. Many of them use jetpacks, but their arsenal also includes heavily-armed VTOL Sky Skiffs, and the powerful Jump Bot robotic warriors - not to mention the ever-annoying hovering Force Field Generators.	

Trolls	A teen level street gang focused around a drug known as Superadine (*aka* Dyne). Long term exposure to the drug has turned the skin of members green, and given increasing amounts of strength to the higher ranking members. One of the more dramatic achievements of the gang has come to be known as the Hollowing, where they were able to tunnel under a whole neighborhood and cause much of the neighborhood to collapse into an immense sinkhole. This area is now known as the Hollows.	
Tsoo	A low- to mid-level Asian street gang who are fairly new to Paragon City. Much of the power of the members of the Tsoo comes from the mystical tattoos they have all over them. The Tsoo have a much larger foothold in the Rogue Isles, often dwarfing their Paragon brothers in power and influence. Often the target of puns by the playerbase, who find them tsoo funny.	

Vahzilok	The Vahzilok are scientific undead. Reanimated by the twisted science of Dr. Vahzilok, they roam the lower level zones of Paragon City, looking for victims to haul back to the doctor for further experimentation. In CoV, certain Vahzilok are declared as members of the Freakshow, and others work as costume tailors	

Table A3 - Brief description and screenshots of some of CoH enemy groups

Glossary

Aggro ..... *Shorthand for aggravate. This term is used when team members when planning a strategy to get for bringing the enemies to come forward into the team's attack. It is also used in questioning a team member, as in "Why did you aggro them all at once?"*

Avatar ..... *The on-screen representation of a character created by a player*

Baddies ..... *Any villain in the game*

Blinkies ..... *Clues and other items the hero is expected to find in a mission. They blink and often emit a pulsing sound as well.*

CoH..... *City of Heroes*

Debt..... *also called experience debt or xp debt, accrues from defeat in battle and essentially slows advancement to the next level or levels*

Dissing ..... *Showing disrespect*

Enhancements
..... *Rewards won in battle, or acquired with influence. They increase the effectiveness of powers for several levels before needing replacement*

Flame Wars *Arguments in chat rooms, newsgroups, virtual play spaces, etc. They often become violent in terms of tone and language*

Gratz..... *Congratulations*

Griefing..... *bullying or otherwise creating problems for others*

Influence ..... *the medium of exchange, earned as reward in battle or received from other players as gift or trade.*

Inspirations. *rewards you can earn in the process of arresting and defeating baddies, you can get inspirations to focus your powers and to revive yourself in a number of ways. Inspirations, along with influence can be traded with or given to other players. Under some circumstances inspirations can also be bought with influence.*

Lft ..... *looking for team*

Level ..... *a status received by the earning of a certain number of points through*

game play

LOL ..... *Common abbreviation for Laughing out loud*

Lurking..... *Being in the virtual play space without participating*

Mad Skillz... *Particularly good skills*

MMORPG .. *Massive Multiplayer Online Role-Playing Game, also referred to in this research as a virtual play space*

MUD ..... *Multi-User Domain (Dungeon) a text version of online role-playing game that predates the MMORPG. This category also includes a specialized text game called a MOO or Object Oriented MUD*

Newbies or n00bs
..... *Inexperienced players*

NP or np..... *No problem*

NPC..... *Non-player character. These characters are programmed into the virtual environment and are controlled by built in artificial intelligence*

OMW ..... *On my way. Headed to join the team.*

Plz ..... *Please*

PvP..... *Player vs. Player. In these game areas, players are fighting other players rather than NPCs*

RL ..... *Real Life*

RPG ..... *Any type of role-playing game whether it is computer-mediated or not*

Security Clearance
..... *The same as level*

Supergroup. *A permanent association of heroes. A player can join a supergroup at any time but must be Level 10 to create one.*

Thx..... *thanks*

Toon..... *Shortened from of cartoon, another term for avatar*

TY or ty ..... *thank you*

U r0x0r..... *You rock! The general meaning is that you did something exceptionally well*

Woot! or w00t!
..... *an expression of joy or triumph*

YW or yw.... you're welcome

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VITA

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