

Social Gaming and Discursive Play: Video Games as Communicative Exchange

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## ABSTRACT

## Social Gaming and Discursive Play: Video Games as Communicative Exchange

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This dissertation shows that video games are a highly social phenomenon, because playing is a form of expression. Traditionally, however, the study of the phenomenon has focused primarily on their socially detrimental ‘effects.’ I argue that this is the result of applying a linear, informational model of communication in studying video games. In its place I offer a contextual approach, and situate contemporary video games in a larger set of media practices.

Conventional wisdom on video games makes the following two assumptions. The first is that play, leisure and games are frivolous activities that exist as separate realms from everyday life. The second is that games “cannot express ideas, impressions, feelings, or information unrelated to the game itself.” (Limbaugh 2002) Combined, this amounts to regarding the phenomenon of video games as a suspicious activity that encourages a-social behavior, varying between a loss of social capital and outright violent behavior. The current study challenges this traditional approach by assessing that contemporary game play serves as an important site for social intercourse, because it facilitates interpretative, collaborative and experimental practices (e.g. modding) within a larger media environment.

After setting up a theoretical framework built on contemporary media practices, the military roots of video games, and an assessment of their visual components, I present three pieces of original research. First, I offer an in-depth ‘reading’ of a video game called *Command & Conquer: Generals*, followed by a study of message board discussions related to the game, and finally a content analysis of user-created mods. Ultimately I conclude that, contrary to the conventional stereotype of being socially

detrimental, playing video games is a highly social activity and exists at the nexus of contemporary media experience.

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**Image 1: Play It By Trust aka White Chess Set, by Yoko Ono, 1966.**

## CHAPTER 1: GENERAL INTRODUCTION

*“Unsatisfied with the versions of history that [...] commercial games invoke, artists, hobbyists, and activists are building their own games in response, creating a new means of cultural critique via gaming.”*  
Ed Halter, *From Sun Tzu to Xbox*, 2006

In 2002, the Interactive Digital Software Association<sup>1</sup>, entrusted with the interests of the entertainment software industry, lost a court case when a U.S. District Court ruled against the claim that a local ordinance violated First Amendment rights of video games. The local ordinance fined retailers for selling violent or sexually explicit video games to minors. As part of his justification, Chief Judge Stephen N. Limbaugh stated that video games as a medium do not constitute speech and are therefore unworthy of First-Amendment protection. According to Limbaugh, they exhibit “no conveyance of ideas, expression, or anything else that could possibly amount to speech,” and he asserted that anything that made that impression in a video game was “inconsequential.” (Weise, 2003, p. 2)

Limbaugh rejected the notion of video games as a form of speech, because he refused to regard them of expressive of anything. Although

often times [a game] is surrounded by speech and expressive ideas—music between innings, fans carrying signs with expressive messages—[...] these expressive elements do not transform the game of baseball into “speech.” Rather it remains, just what it is—a game. Nor does the Court think there is some magical transformation when this game of baseball appears in video form. The objectives are still the same—to score runs—and the only difference is a player pushes a button or swings a “computer bat,” rather than swinging a wooden bat. Just like Bingo, the Court fails to see how video games express ideas, impressions, feelings, or information unrelated to the game itself.<sup>2</sup>

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<sup>1</sup> Now called the Entertainment Software Association (ESA).

<sup>2</sup> The Interactive Digital Software Association versus St. Louis County, Missouri. Chief Judge Stephen N. Limbaugh, Case No. 4:00CV2030 SNL. *Opinion summary* (April 19<sup>th</sup>, 2002), pp. 1 – 26.

It follows, for Limbaugh, that if video games are not a form of speech, they deserve no protection.<sup>3</sup> But, although Bingo does not narrate in any way, it does familiarize its players with a numeric system. In fact, educational varieties of its predecessor *Lotto* first emerged in Germany in the 1850s, and were “designed to teach children their multiplication tables.” (Snowden, 8) Similarly, chess tells the story of two opposing armies. Its playing pieces are actors, which each have a specific role, and game rules are the laws of their world. During game play we actively assign meaning and generate realities: the symmetrical, agonistic universe of chess presents a hierarchical division of labor among its pieces and prescribes a distinct set of relationships. Consequently, chess models an ideological system of social organization that differs from its cousin checkers. Games, by this definition, are epistemological vehicles with which we understand, interact, and communicate about the world. But as the above case illustrates, the notion that games have a potential to communicate remains a challenging one. And so the central tenet of this dissertation is that playing a game is a form of expression.

The traditional approach of communication, however, which focuses on the ‘effect’ of video games on society, is insufficient to understand the whole of electronic games. (Williams 2005) Succinctly, in describing the phenomenon we cannot isolate game play from its larger environment. The socio-political organization of chess pieces, to continue the example, resembles that of real-life monarchies and outflanking the King (checkmate) signifies the demise of the miniature patriarchy. The microcosm of a game,

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<sup>3</sup> Despite Limbaugh’s argument, the 8<sup>th</sup> U.S. Circuit Court of Appeals eventually overturned his ruling, stating “In rejecting the plaintiffs’ constitutional challenge to the ordinance, the district court first concluded that video games were not a protected form of speech under the first amendment. [...] The district court believed that, because video games are a new medium, they must “be designed to express or inform, and there has to be a likelihood that others will understand that there has been some type of expression” before they are entitled to constitutional protection. [...] But the Supreme Court has long emphasized that the first amendment protects “[e]ntertainment, as well as political and ideological speech,” [...] and that a “particularized message” is not required for speech to be constitutionally protected.” Source: <http://www.ca8.uscourts.gov/opndir/03/06/023010P.pdf> Site accessed March 6, 2009.

in other words, always stands in some relation to the conditions of the world around it—whether as reinforcement or counter-irritant. Either way, games express ideas.

## **I. Research Question**

The main question that this dissertation seeks to answer is the following:

What is the nature of the relationship between the interiority of a video game to the larger reality in which it exists, from a communicative perspective?

Here the ‘interiority of a video game’ refers to the totality of the game’s rules, its narrative economy, user-created content and player practices.

As part of answering this question, I will employ two paradigms in communications research. The first regards video games as an informational device and emerges from a lineage of communication research focused on the ‘effect’ media have on society. The second approach looks at games more abstractly and places them in the context of a larger experience. Rather than presenting a linear form of expression, this model regards the communicative nature of video games as the construction of meaning.

Furthermore, I tackle three misconceptions that pervade communication science literature on the topic. The first is the idea that video games are anti-social, and is described in detail in Chapter 2. So far, the application of communication theory and research to the phenomenon of video games has been almost exclusively on its (negative) effect on society. Informed by a host of psychological studies, this approach presupposes that games operate as a container of information, which after internalization changes one’s behavior. The communicative aspect of gaming, however, does not originate in a singular message reaching an audience, but in its collective practice. Consequently, electronic game play is not the habit of isolated, a-social individuals, but a highly social phenomenon.

The second misconception consists of the implicit suggestion that games are a linear, informational form of communication, which is described in Chapter 3 and Chapter 5. The body of literature that investigates the effect of (violent) video games on society implies the existence of a linear relationship between ‘messages’ being sent and received, and consequently contributing to a change in behavior. Certainly, violent entertainment can provoke aggressive behavior. But this is a very limited approach to understanding video games. Historically, game play has served as an epistemological vehicle, whose interior logic related to the larger reality in which it existed. Just as a bow-and-arrow contest is simultaneously a game and a preparation for warfare and hunting, so too do electronic games facilitate experimentation and a negotiation with the conditions of our everyday environment. To look at games this way, however, obligates us to surrender a linear model of communication and instead regard its larger (media technological) context.

The third misconception emerges from the almost uniform approach to modding in terms of its economic value, and is described in Chapter 6. Modding, the practice of creating modifications to an existing game’s mechanics or representations, is a central component of digital and electronic game play. Modders are far from isolated individuals, but, as I will show, collaborate and freely share their work with others online. Consequently, the emphasis of this practice does not lie with the economic value of user-created content (i.e. free additional content for an existing media property created by its fan-base), but in presenting a venue for social interaction.

## **II. Dissertation Outline**

The following is organized in two main sections: *Theory* and *Analysis*. The former establishes the necessary concepts to approach game play as a form of

communication. The latter assesses over the course of three chapters the relation between the internal microcosm of *Command & Conquer: Generals* and a larger exterior reality of contemporary military conflict.

The individual chapters are the following. Chapter 2, titled *Relevance*, provides a basic understanding of both the overall video game industry, and critically analyzes the empirical foundations of the argument that video games are socially detrimental.

Chapter 3, *Games as Communication*, argues that games exist in relation to a larger reality, which informs their underlying mechanics and epistemology. The chapter offers a mode of communication that helps understand how games in general, and video games in particular, are capable of communicating ideas. It asks and answers: “What is Communication?,” “What is a Game?,” “How do Games Communicate?,” and shows how game design is an expressive act.

To thoroughly understand the initial environment in which the rudiments of video games emerged, chapter 4 (*Games and the Military*) explores how the military origins inform contemporary game play. It examines how the shifting organizational paradigms in military history affected the flow of information and flattening of the hierarchical structure of an army. As the necessity to make decisions, within an increasingly information-dense environment, moved down the chain of command, the U.S. army developed new ways to teach collaboration and decision-making to individual soldiers. Video games emerged from this effort and eventually transitioned to civilian forms of simulation.

Chapter 5, *Video Game Vocabulary*, argues that video games have emerged not just alongside other media, but, more importantly, in response to them. It shows how the building blocks of contemporary game play fit into a larger environment of media practices and technologies.

As the last chapter in the Theory section, *Modding*, explores the digital nature of contemporary entertainment and its affordances with regards to customizable experiences of what used to be mass media. Recently the phenomenon of “user-generated content” emerged and is currently challenging traditional communication conventions. In the context of gaming, modding – user-created modifications on the original game architecture – is an integral part of the practice and has roots in both “hacking” and “textual poaching.” The former refers to an active experimentation with real-life technologies in an attempt to understand and ultimately gain autonomy over, the ways in which technology mediates everyday lives. The latter refers to the use and re-use of shared ideas and experiences in creating derivative works. After establishing a workable definition of modding, I review the current literature on the topic, and critique the almost exclusive focus on the producer/consumer dichotomy.

The second segment, Analysis, begins with the chapter 6, *Reading Command & Conquer*, which describes in great detail a video game called *Command & Conquer: Generals* (CCG) Both the game’s narrative economy and game mechanical organization feature in detailing the overall story CCG tells.

Subsequently, the chapter *Mods and Message Boards* looks for a constant in both the opinions of gamers (modders) and their game play. The chapter operates under the assumption that if games are a form of communication, then gamers will inform their game play and game design with their personal ideas and opinions. Despite an analysis of a large amount of online message board discussions among C&C-gamers (n=~3.9 million), the consistency it identifies between how C&C-gamers feel about the country of Iran and the way Iran is portrayed in user-created content remains weak.

The final chapter, *The Games People Make*, presents a qualitative analysis of 1,511 user-created game mods (e.g. maps) and identifies recurrent characteristics. Based

on its findings I conclude that contemporary gaming is primarily a social activity, rather than a linear, informational communicative exchange.

## CHAPTER 2: RELEVANCE

Perhaps the most frequent question I have encountered over the past few years is why one would study video games. Certainly, many can see the advantages of playing games as an essential research component. But convincing people that the study of video games is worthy of scholarship remains challenging. The relevance of this dissertation is three-fold: its spectacular growth, its relation to a larger media environment, and the incorrect, but common, viewpoint that video games are an anti-social endeavor.

First, the electronic entertainment industry has grown substantially both in terms of monetary spending and the amount of time spent. Where traditional entertainment media have suffered significantly due to the transition to digital distribution and the decline in advertising expenditure, the video game industry has proven counter-cyclical. Whether we call this evidence of being recession-*proof* or recession-*resistant* (Pachter 2009), it suggests that video games are dissimilar from other forms of entertainment and therefore perhaps serve a different purpose.

Turning to the contemporary market for entertainment media, we see that video games are one of the fastest growing media industries, totaling \$47 in worldwide sales today. Over a 22-year period, all entertainment media have grown in dollar terms. But the video game industry shows an above average compound annual growth rate (CAGR) over the period.

**Table 1: Annual U.S. Entertainment Media Revenue: 1984 – 2006<sup>4</sup>**

(\$ Mil)	1984	1988	1992	1996	2001	2006	CAGR
Internet	79	408	738	3,183	28,747	41,903	33.0%
Video Games	1,944	2,550	3,908	4,946	8,826	10,716	8.1%
Television	33,097	45,898	58,502	78,491	118,835	148,933	7.1%
Movies	11,061	17,151	21,617	26,062	35,878	47,201	6.8%
Magazines	8,191	11,681	14,284	21,498	29,479	34,599	6.8%

<sup>4</sup> Source: Noam, E. (2009) *Media Ownership and Concentration in America*, Oxford University Press. DFC Intelligence “*Historical Retail Sales for the Video Game and Interactive Entertainment Industry*,” March 2007.

Radio	5,984	7,893	8,755	12,412	18,369	20,713	5.8%
Book Publishing	14,752	17,467	24,176	31,996	45,210	49,849	5.7%
Music	8,479	12,132	15,409	21,183	24,778	25,290	5.1%
Daily Newspapers	25,170	32,280	30,639	38,075	44,300	48,861	3.1%
Consumer Electronics	18,167	21,571	26,053	30,756	32,284	35,089	3.0%
Total	126,923	169,031	204,082	268,602	386,705	463,155	6.1%

The 33.0% annual growth for the Internet industry is somewhat misleading because it barely had a consumer presence back in 1984. (Adjusting the time period to 1996 – 2006 gives a CAGR for Internet industries of 29.4%, and 2001 – 2006 gives 7.8 percent.) In fact, if we remove the Internet industry for a moment, the average CAGR (6.1%) declines to 5.6%, indicating the substantial contribution this industry makes to the overall numbers. Regardless, the video game industry takes a second place with a growth rate of 8.1%, well above the 6.1% average. Its closest follower is Television, America’s staple medium, with a CAGR of 7.1 percent, with in its trail Movies and Magazines (6.8%).

Incidentally, the table also unnerves the myth that the video game industry “generates more revenue than Hollywood.”<sup>5</sup> At best the American games industry approximates box office sales, \$11.1 billion in 2006, but clearly does not have the same range of revenue streams that the movie industry does. Specifically, box office sales present about 8% of total revenue from an investment in a film property. Film titles make money at the theater, but also at pay-per-view, on DVD, on cable, and so on. The games industry does not have an equivalent to this so-called “downstream revenue.”<sup>6</sup>

<sup>5</sup> Matthew Yi “They Got Game: Stacks of New Releases for Hungry Video Game Enthusiasts Mean It’s Boom Time for an Industry Now Even Bigger Than Hollywood,” San Francisco Chronicle, December 18, 2004. Available at: <http://www.sfgate.com/cgi-bin/article.cgi?f=/chronicle/archive/2004/12/18/MNGUOAE3611.DTL> Site accessed March 13, 2009.

<sup>6</sup> Keith Boesky, blog posting “Reality Check: Games Are Not Bigger Than Movies Edition” April 4, 2008. Available at: <http://boesky.blogspot.com/2008/04/reality-check-games-are-not-bigger-than.html> Site accessed March 13, 2009.

Growth of the overall games industry is also up when looking at the amount of time consumers spend playing video games. The U.S. census published the following numbers.<sup>7</sup>

**Table 2: Annual Time Spent on Media in Hours per Capita: 2000 – 2010E**

	2000	2001	2002	2003	2004	2005	2006E	2007E	2008E	2009E	2010E	CAGR* '00-'05
total	3340	3393	3447	3508	3530	3543	3553	3567	3592	3601	3620	
Pure-play mobile content	0.1	1	2	4	7	9	11	15	19	23	28	146.0%
Pure-play Internet services	100	125	138	155	165	172	177	180	181	182	183	11.5%
Home video	43	47	57	60	67	63	63	64	65	66	67	7.9%
Videogames	65	66	71	76	78	73	75	78	80	84	86	2.3%
Television <sup>8</sup>	1502	1553	1572	1615	1620	1659	1673	1686	1704	1713	1733	2.0%
Out-of-home media	118	120	121	123	126	130	134	137	141	145	150	2.0%
Yellow Pages	11	12	12	12	12	12	13	13	13	13	13	1.8%
Radio <sup>9</sup>	784	792	825	834	821	805	794	786	785	778	776	0.5%
Consumer books	107	106	109	109	108	108	107	107	107	108	108	0.2%
Box office	12	13	14	13	13	12	12	12	12	12	12	0.0%
Consumer magazines	135	127	125	122	125	124	122	121	122	120	119	-1.7%
Newspapers	201	198	196	194	191	184	181	177	173	169	165	-1.8%
Recorded music	259	231	203	189	195	189	191	191	188	187	180	-6.1%
In-flight entertainment	2	2	2	1	1	1	1	2	2	2	2	-12.9%

\* Compound Annual Growth Rate

Although the amount of time spent per capita in 2005 on games (73) does not rival television (1,659) or radio (805) time, consumption is growing steadily. Skeptics will be pleased to note that people spend roughly twice the amount of time reading books (107), magazines (124) and newspapers (184).

Individual spending, too, is growing. And on this dimension, video games (2.8%) show a higher CAGR than box office tickets sales (2.1%), consumer books (1.8%), magazines (0.0%) and newspapers (-0.5%).

<sup>7</sup> U.S. Census Bureau, The 2008 Statistical Abstract “10998 – Media Usage and Consumer Spending: 2000 to 2010.” Available at: [http://www.census.gov/compendia/statab/cats/information\\_communications.html](http://www.census.gov/compendia/statab/cats/information_communications.html)  
Site accessed March 13, 2009.

<sup>8</sup> Includes both broadcast and cable.

<sup>9</sup> Includes both broadcast and cable.

**Table 3 Annual Consumer Media Spending per Capita: 2000 – 2010E<sup>10</sup>**

	2000	2001	2002	2003	2004	2005	2006E	2007E	2008E	2009E	2010E	CAGR* '00 – '05
Total	610	656	707	740	773	787	817	851	881	909	934	
Radio	0	0	0	0	1	3	6	8	11	13	16	397.2%
Pure-play mobile content	0	1	2	5	8	10	11	13	15	16	17	141.5%
Television	174	196	217	237	259	283	307	329	350	369	385	10.3%
Home video	81	92	108	122	125	115	114	116	117	118	119	7.2%
Pure-play Internet services	45	56	62	60	60	57	56	56	57	59	60	4.7%
Videogames	28	29	33	33	34	32	34	36	37	40	42	2.8%
Box office	33	36	40	39	39	36	37	36	36	35	35	2.1%
Consumer books	87	86	90	92	92	96	97	100	102	104	106	1.8%
Consumer magazines	48	47	47	47	47	48	47	47	48	47	48	0.0%
Newspapers	52	52	53	54	52	51	50	49	48	46	45	-0.5%
Recorded music	61	58	53	49	52	51	52	52	52	52	51	-3.5%

\* Compound Annual Growth Rate

In summary, despite remaining humble compared to the large incumbent consumer media, video games are showing above average growth, and, both in terms of time and money spent, are rapidly becoming a staple in entertainment consumption.

Of course, the previous tables not only serve to show the singular growth of video games, but also place it within the larger eco-system of media. Table 2 tells us that an average American spends almost 10 hours per day consuming, being exposed to, or interacting with media. Immediately we observe, of course, that ten hours each day is an unrealistic number if we assume that a person pays singular attention to single medium at once. More likely, consumption involves multiple media at the same time. Or, more poetically,

It is everywhere, too much to take in. It is, in a sense, like nature – that overwhelming presence human beings once found so threatening yet auspicious that they conjured gods and demons to imagine their way through its ungraspable allness. (Gitlin 119)

The earliest acknowledgement of having to regard video games as something more than an example of ‘new media,’ is Kinder’s *Playing With Power: Movies, Television, and Video Games from Muppet Babies to Teenage Mutant Ninja Turtles*. (1991) In it, she

<sup>10</sup> U.S. Census Bureau, The 2008 Statistical Abstract “10998 – Media Usage and Consumer Spending: 2000 to 2010.” Available at: [http://www.census.gov/compendia/statab/cats/information\\_communications.html](http://www.census.gov/compendia/statab/cats/information_communications.html)

places video games on equal footing with the cultural relevance of film and television. But more importantly, “the video game was regarded as a cultural object that fit into a larger social and economic context.” (Wolf, 5) Shifting from stats to theory, traditional media theory and communications studies are akin to geology in that they try to explain how the plates of the earth move and create its valleys and mountains. It looks at the world from a bird’s eye perspective and makes claims about where the trees should grow and the roads should run. But it rarely asks how people, in their own words, make sense of this world in which they live.

The study of the *conditions* of communication is, by and large, one of the more relevant topics within the overall discipline. But communication is an act. Speaking, writing, singing, painting, dancing and so on are committed acts that connect us to a larger context. And by doing so, we co-create this context. The second motivation that drives this dissertation is borne out of a curiosity about the ways in which people make sense, how they create common meaning. I believe that games offer us an entryway into understanding how people make sense of the world around them. This brings us to the second point of relevance: this study argues for a contextual model of communication in describing the phenomenon, by pointing at the larger media technological environment in which video games have emerged.

In studying communication and media we are confronted with the problem of how to describe what we experience, in the broadest sense, in the midst of experiencing it. Succinctly speaking, the former necessitates a consciousness that negates the latter. Moreover, for the same reason that we cannot escape our own media technological moment in order to describe it, we also cannot enter into one from which we are spatially, temporally, or epistemologically removed. Panofsky’s *Perspective as Symbolic Form*, a classic text in the fields of architecture and art history, reminds us that “it is essential to

ask of artistic periods and regions not only whether they have perspective, but also which perspective they have.” (1993, p. 41)

Yet, despite this difficulty, understanding the conditions of our environment is fundamental to our existence. Whether taken from a media ecological or philosophical point of view, “life goes on in an environment; not merely *in* it but because of it, through interaction with it.” (Dewey 13) Identifying the characteristics of the world around us and developing the necessary faculties to successfully participate in, navigate through, and negotiate with it is crucial to the process of human life. The function of the faculty dealing with communication is to understand the conditions of its contemporary media technological environment. In saying something about the way we say something, communication and media technology are not mere ‘symptoms’ relating to a larger cultural logic. Rather, communication serves both as a reinforcement of and as a response to the conditions presented by an environment.

This perspective creates an enormous responsibility. To be sure, if by describing contemporary communication we are simultaneously shaping it, then we must take into consideration the teleological direction of our approach, and our underlying assumptions. For example, approaching television as a ‘mass-medium’ rather than an individualized experience will reach a different conclusion and, more importantly, provides ammunition for different political agendas. Likewise, discussing the ongoing ebb and flow in media ownership from a purely anecdotally-underpinned point of view brings about different conclusions than an economic or empirical perspective. (Noam 2009) Clearly, we may have already made up our minds about what we are about to say, whether we are aware of this or not. Unfortunately, a neutral approach to something as complex as media technology and communication is an oxymoron. The essence of communication lies in the externalization, the expression, of experience: “communication is the process of

creating participation, of making common what had been isolated and singular.” (Dewey 244) What the current study attempts to make common is not some ultimate truth, but the nature of a particular experience through and in contemporary media technology.

Because in the same way that we cannot transpose a ‘way of looking’ at communication onto a medium from the past, we also cannot impose it onto those of the future. With every new form of popular expression, existing ones seek to adopt it and thereby conserve their own existence. McLuhan correctly pointed at the “transitional awareness” implied by the “horseless carriage,” “wireless”, and “moving pictures.” (McLuhan 159)

The initial inability to comprehend the changes of the media technological environment is not merely a coincidentally recurrent phenomenon, but perhaps even more so a politically colored interpretation. The Church’s resistance against the popularization of the printing press had very little to do with the preservation of the spiritual connection between mankind and the divine. Rather, the institutionalization and ongoing expansion of a list of forbidden books, testifies to the energies spent on trying to control ‘what is made common’ and regaining exclusivity over access to Heaven. (McLuhan; Andersen)

Although in an entirely different context and era, the idea of ownership of cultural expression by way of trademark and copyright, and enforced by international law, finds itself humbled by the momentum with which music and movies are reproduced, redistributed, and reinterpreted in the 21<sup>st</sup> century. (Vaidhyathan; Drahos & Braithwaite) And in this struggle, by merely labeling it ‘piracy,’ incumbent authorities have already skewed the playing field in their favor. For this reason, we must properly contextualize our efforts. As expression and experience influence each other one is easily caught up in the politics or social agenda of a particular group or time period. To uncover the deeper underlying principles of communication we must look for the architectural blueprint that lies at its basis. Quite literally, the shape, nature, conditions, and process of

communication all speak about society's perspective on communication, on what to 'make common' and what not. A building emerges amidst the various tensions of a society, constructed after the available materials, its perceived function, and so on. Its outcome is tenuous and complex, as it may very well be destroyed and re-appropriated by an entirely different socio-political interpretation. In the same way, how we communicate tells us about the role of communication. The clever acoustics of the Roman amphitheaters or the comfortable darkness of the cinema both facilitate and structure communication and tell us about how about its role in society. The disappearance of the 'distracting' conductor and musicians in Wagner's *Festspielhaus*, focused the attention of the audience onto the illuminated stage. In this way, Wagner created a "mystic gulf" between the audience and the stage, giving performances a dreamlike character and reinforcing the mythic content of many of his operas.<sup>11</sup> Leaving the physical characteristics behind, we can then begin to think about the epistemological blueprint that shapes and organizes communication.

When in 2003 two teenagers in Knoxville, Tennessee, in a moment of boredom took a rifle and fired randomly at tractor-trailer rigs, just like they had seen in a video game, the debate on video game violence took hold of the news media. The two children, aged 14 and 16, killed one person and injured another. And shortly after, the victims' families filed a \$246 million lawsuit against Sony, Take Two Interactive Software, and Wal-Mart for designing, marketing and retailing the video game. Incidents of this nature, common sense would have it, are symptomatic of a strong, causal, relationship between aggressive behavior and the influence of violence in (entertainment) media. In 1986, for example, Rowell Huesmann, director of the Aggression Research Program, testified to

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<sup>11</sup> Source: [http://en.wikipedia.org/wiki/Bayreuth\\_Festspielhaus](http://en.wikipedia.org/wiki/Bayreuth_Festspielhaus) Site accessed May 4th, 2006.

the Senate Judiciary Committee that such connection was validated and true. His research showed “that boys who watched violent television at age 8 were exceptionally likely to have been convicted of serious crimes by age 30.” (O’Hehir 2005) However, not until much later Huesmann admitted that “the total number of boys he had identified [...] who watched violent TV and then became violent criminals was three.”

The debate on the relation between video games and their alleged anti-social nature is emotionally charged. But, according to one media scholar, Jib Fowles, “the problem with media-violence research as a field is that it reveals no consistent pattern of results, and people on any side of the issue can cherry-pick the studies they like and ignore the others.” According to Wolf et al (2003), the book *Mind at Play: The Psychology of Video Games* (1983), started the

tradition of the video game as object of psychological study and a tool to be used in laboratory experiments. This tradition stills continues today, including work such as Anderson and Dill’s 2000 study linking video games with aggressive thoughts and behaviors. (5)

And so, video games rarely get mentioned without being related them in some way to violent behavior. Moreover, the string of lawsuits that generally follows a high school shooting further stimulates media coverage. And, remarkably, even in a moment of international crisis, in the weeks following September 11<sup>th</sup>, there was still room to point at video games as a potentially destructive influence. Retail stores removed *Microsoft Flight Simulator* from their shelves, due to “speculation that terrorists could have used the game to help them learn how to fly a plane,” despite the claim “that there is not a relation between the two.”<sup>12</sup>

In 1993 U.S. Senator Joseph Lieberman openly criticized *Mortal Kombat*, the poster child for violent games. By doing so the Senator planted the seeds for the

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<sup>12</sup> Source: <http://compsimgames.about.com/library/weekly/aa091801a.htm> Site accessed March 13, 2009.

establishment of the Entertainment Software Rating Board (ESRB). Initially the ESRB, a body of self-regulation comparable to the Motion Picture Association of America (MPAA) system for movies, silenced much of the criticism, by creating a seemingly transparent rating system.<sup>13</sup> Anno 2008, those categories are: “Early Childhood” (suitable for ages 3 and older), “Everyone” (6+) “Everyone 10+,” “Teen” (13+), “Mature” (17+), and “Adults Only” (18+).<sup>14</sup>

Despite an historical interest of conservative voices in the assumed relationship between violence and vide games, the explosive growth of the industry since 2000, partially driven by the successful launch of the PlayStation 2 (2000) and GameCube (2001) has rejuvenated the discussion on the relation between human behavior and media effects.<sup>15</sup> In 2009, well-known companies such as Microsoft, Nintendo, and Sony built this global \$47 billion dollar annual market into a staple in contemporary entertainment.<sup>16</sup>

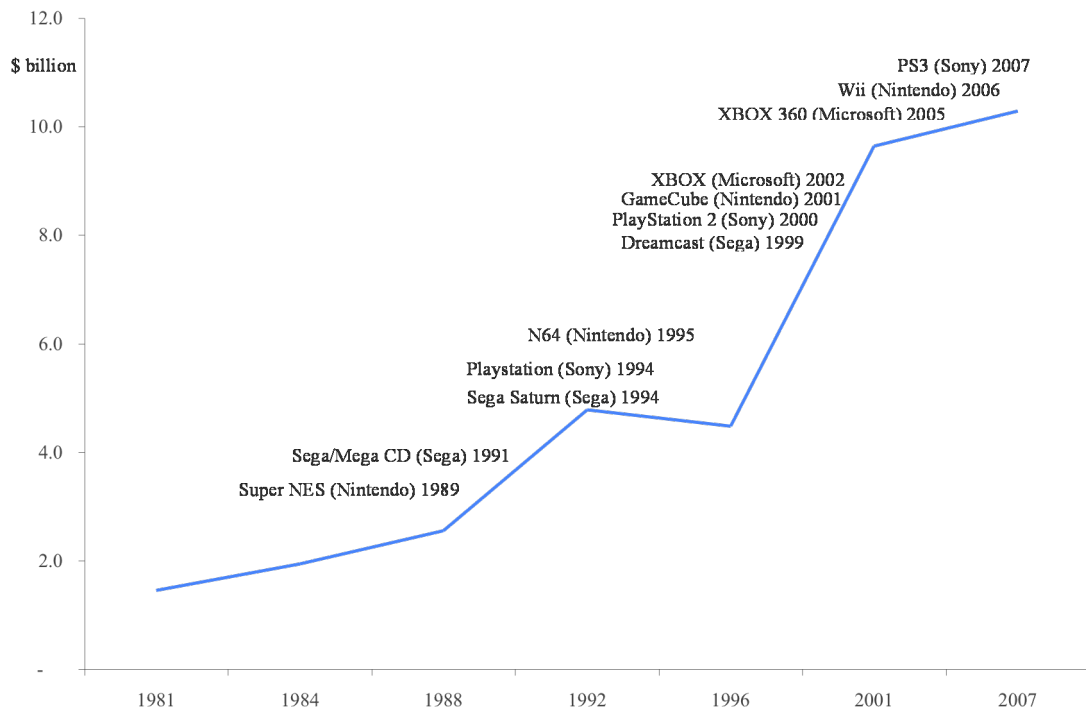
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<sup>13</sup> In reality, of course, rating systems are much less transparent about the criteria that determine a title’s label. But that may be a topic for a next dissertation.

<sup>14</sup> Source: [http://www.esrb.org/esrbratings\\_guide.asp#symbols](http://www.esrb.org/esrbratings_guide.asp#symbols) Site accessed March 13, 2009. An additional rating, “Rating Pending” (RP), carries obviously no age directions.

<sup>15</sup> In *The Blame Game: The Existence of Video Games in Contemporary Media*, I established the disproportional attention for games rated 17+ among major U.S. newspapers, and the increasing presence of articles that include both “violence” and “video games.”

<sup>16</sup> Michael Pachter, *Money for Nothing: How Ancillary Revenues Can Extend the Console Cycle*, July 2009, Wedbush Morgan, Los Angeles, San Francisco, New York, Boston, Seattle.

**Graph 1: U.S. Games Industry: 1981 - 2007<sup>17</sup>**

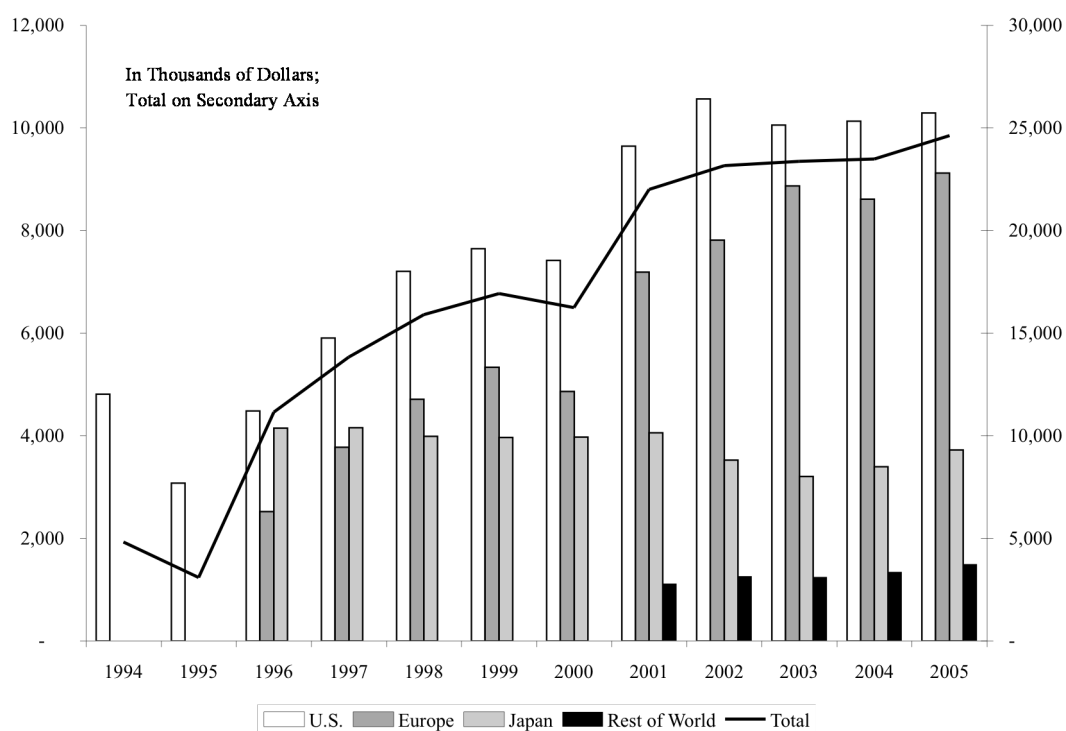
Briefly, 1996 marks a period in which the games industry grew as many large media companies (e.g. Walt Disney Company) entered the games software industry, subsequently driving its overall size to a new level. Microsoft's 2002 entry as a third hardware vendor, taking on both Nintendo and Sony, also contributed to the overall market growth. Prior to the success of Microsoft and Sony, a slew of other companies tried to launch their own hardware platform. But none of them were able to stay alive and either moved to exclusively develop entertainment software (Sega and its DreamCast console) or exit the industry completely (CBS Electronic and its failed ColecoVision platform).

Historically, the U.S. has been the largest game market, with total sales in 2005 amounting to about 42% worldwide, followed by Europe (37%) and Japan (15%).<sup>18</sup>

<sup>17</sup> Source: DFC Intelligence *Historical Retail Sales for the Video Game and Interactive Entertainment Industry*, 2007. The \$47 billion for 2009 includes both software and hardware.

<sup>18</sup> Based on aggregate sales figures from Michael Pachter, *Money for Nothing: How Ancillary Revenues Can Extend the Console Cycle*, July 2009, Wedbush Morgan, Los Angeles, San Francisco, New York,

**Graph 2: Worldwide Video Game Market, by Geography: 1994 – 2005<sup>19</sup>**



Video games also show their presence in consumer households. Currently, “more than eight in ten (83%) young people have a video game console at home, and a majority (56%) have two or more. About half (49%) have one in their bedroom, and just over half (55%) have a handheld video game player.”<sup>20</sup> This means that video games are not just growing in popularity, but are competing for the consumer’s attention with the more traditional sources of entertainment (see table 2).<sup>21</sup>

Not surprisingly, as the video game industry becomes more crowded, companies, both big and small, compete over shrinking margins and market share. Traditionally, two features characterize this industry. First, similar to the film industry, entertainment software is a hit-driven business. Electronic Arts’ success has been attributed to its early

Boston, Seattle, and DFC Intelligence’s 2007 *Historical Retail Sales for the Video Game and Interactive Entertainment Industry*, San Diego.

<sup>19</sup> Ibid.

<sup>20</sup> Henry J. Kaiser Foundation “*Generation M: Media in the Lives of 8 - 18 Year Olds*” March 2005. Available at: <http://www.kff.org/entmedia/entmedia030905pkg.cfm>

<sup>21</sup> For a more detailed discussion on U.S. consumer media spending, please refer to the section labeled “Relevance.”

recognition of the value of sports licenses (e.g. its Madden NFL series). Second, entertainment software sales are seasonal, as the bulk of the industry generates between 40-50% of annual revenue during the holiday season. (Pachter 2009) During the period leading up to the fourth quarter, many companies initiate an aggressive marketing campaign, hoping to convince consumers to spend their holiday money on their titles. In this equation, the revenue of a hit title often justifies the financial loss of several failures. Within a crowded market, marketing a violent, controversial title (e.g. *Grand Theft Auto*) is one strategy to separate one's product from the herd, which is another way of saying that violent titles tend to receive a disproportionate amount of limelight.

Nonetheless, while there are many examples of violent video games, the bulk share of currently available games is more timid in nature. Using the ESRB database (n=15,674), a search for games with an 'Adults Only' (AO) rating generates 23 titles.<sup>22</sup> The number of games rated 'Mature' (M) adds up to 1,210. A whopping 14,441 games in the ESRB database are rated appropriate for adolescents and children: Early Childhood (EC), Everyone (E), Everyone 10+ (E10+) and Teen (T). Or, put differently, only 7.8% of all video games rated by ESRB contain explicit violence and nudity deserving of a restrictive rating.<sup>23</sup>

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<sup>22</sup> Source: Entertainment Software Ratings Board's website: [www.esrb.org](http://www.esrb.org) Search performed September 2, 2008. On the ESRB site, the rating 'Adults Only' is described as "Titles rated AO (Adults Only) have content that should only be played by persons 18 years and older. Titles in this category may include prolonged scenes of intense violence and/or graphic sexual content and nudity." Site accessed October 14, 2009. For a more elaborate description of the ESRB rating system and what they mean by terms like "animated blood" that determine a game's label, please visit their site.

<sup>23</sup> These numbers made no distinction between PC, console, or handheld games, or between publishers.

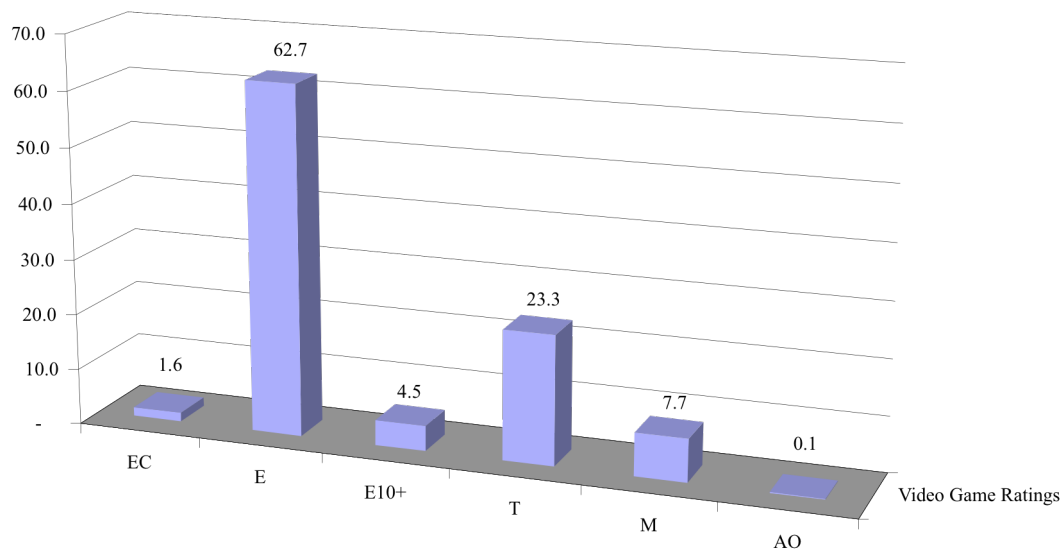
**Table 4: Game Titles According to ESRB Rating**

Rating	2005		2006 <sup>24</sup>		2007		2008	
	Units	%	Units	%	Units	%	Units	%
EC	227	2.1	237	1.9	247	1.8	251	1.6
E	7,213	65.8	7,851	64.2	8,488	62.9	9,835	62.7
E10+	9	0.1	222	1.8	435	3.2	709	4.5
T	2,631	24.0	2,932	24.0	3,233	23.9	3,646	23.3
M	863	7.9	968	7.9	1,073	7.9	1,210	7.7
AO	18	0.2	21	0.2	23	0.2	23	0.1
Total	10,961		12,230		13,499		15,674	

Alternatively, according to the Entertainment Software Association, the share of games that were sold carrying a ‘Mature’ rating was 15.5% in 2007.<sup>25</sup> While this is a more accurate representation of the games that are actually *in* the households, it remains relative to the 27.9% rated T, 44.9% rated E, and 11.6% rated E10+. The graph below shows the subdivision among the ESRB ratings.

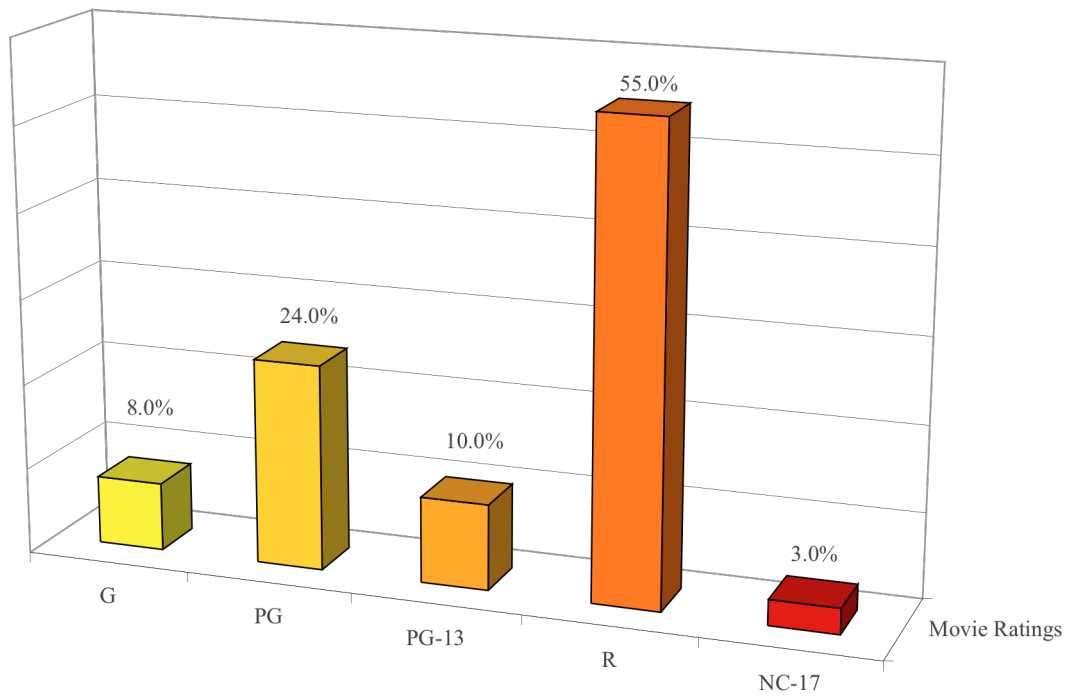
<sup>24</sup> The number for 2006 were averaged based on 2005 and 2007 data.

<sup>25</sup> Source: [http://www.theesa.com/facts/pdfs/ESA\\_EF\\_Violence\\_2008.pdf](http://www.theesa.com/facts/pdfs/ESA_EF_Violence_2008.pdf). See also: [http://www.writenews.com/2005/021105\\_gamesales\\_04.htm](http://www.writenews.com/2005/021105_gamesales_04.htm) Sites accessed March 13, 2009.

**Graph 3: Video Game Ratings<sup>26</sup>**

Games rated as appropriate for minors, meaning up to 17 years old, make up 92.1% of all available games. The movie industry, however, shows an almost opposite image, with 58% of all titles rated only suitable for 17 and older. (Below I look at the ratings of the best-selling titles, to get an idea of how actually sold games are distributed across the ESRB rating spectrum.)

<sup>26</sup> According to several sources, the percentage of 'R' rated movie titles makes up about 50% of the total. To quote one source specifically, the percentages for 'G,' 'PG,' 'PG-13,' 'R' and 'NC-17,' were 8%, 24%, 10%, 55%, and 3% respectively. Source: <http://www.infoplease.com/askeds/4-10-00askeds.html> Site accessed March 13, 2009.

**Graph 4: Movie Title Ratings**

Another way of bringing nuance to the discussion whether or not video games inspire violent behavior is to look at what game titles actually make it into mainstream news media. The following table summarizes the topselling video game titles for 2003 and 2004.

**Table 5: Top 25 Console Games By Year<sup>27</sup>**

2003				2004		
Rank	Title	Units (Est.)	ESRB	Title	Units (Est.)	ESRB
1	Madden NFL 2004	3,100,000	E	Grand Theft Auto: San Andreas	5,100,000	M
2	Pokemon Ruby	1,700,000	E	Halo 2	4,200,000	M
3	Pokemon Sapphire	1,500,000	E	Madden NFL 2005	4,200,000	E
4	Need For Speed: Underground	1,400,000	E	ESPN NFL 2K5	1,500,000	E
5	Zelda: The Wind Waker	1,400,000	E	Need For Speed: Underground 2	2,164,400	E
6	Grand Theft Auto: Vice City	1,300,000	M	Pokemon Firered w/ adapter	1,200,000	E
7	Mario Kart: Double	1,200,000	E	NBA Live 2005	1,200,000	E
8	Tony Hawk's Underground	1,200,000	T	Spider-Man: The Movie 2	1,100,000	E
9	Enter the Matrix	1,100,000	T	Halo	1,100,000	M
10	Medal of Honor: Rising Sun	1,000,000	T	ESPN NFL 2K5	1,000,000	E
11	NCAA Football 2004	999,200	E	Pokemon Leafgreen w/ adapter	1,000,000	E
12	Halo	976,000	M	NCAA Football 2005	942,400	E
13	True Crime: Streets of LA	961,700	M	Fable	897,000	M
14	Final Fantasy X-2	957,200	T	MVP Baseball 2004	830,500	E
15	NBA Live 2004	955,200	E	NFL Street	826,300	E
16	SOCOM II: Navy Seals	857,400	M	Tony Hawk Underground 2	811,100	T
17	Grand Theft Auto 3	857,300	M	Metal Gear 3: Snake Eaters	777,200	M
18	NBA Street Vol 2	853,900	E	Mario Bros 3: Mario 4	775,000	E
19	The Getaway	845,000	M	Need For Speed: Underground	771,400	E
20	Mario Bros 3: Mario 4	819,900	E	ESPN NBA 2K5	765,500	E
21	Grand Theft Auto Pack	793,500	M	Call of Duty: Finest Hour	759,500	T
22	Namco Museum	787,300	E	Pokemon Colosseum	733,900	E
23	The Sims	770,500	T	Fight Night 2004	704,400	T
24	Dragonball Z: Budokai	755,600	T			
25	Super Smash Brother Melee	731,200	T			

Subdividing the top sold games *by units* for both years in two categories, namely '17 and over' and '17 and under,' shows an increase from 24% in 2003 to 36% in 2004. Games rated suitable for 17 and under decreased from 76% to 64% in 2004. Overall sales increased from 14.7 million units in 2003 to 19.1 million in 2004, or roughly 5.5 million. The simultaneous release of *Grand Theft Auto: San Andreas* and *Halo 2* (both rated M) drives this increase. Looking at the top 25 games *by revenue* the overall share of games suitable for "17 and older" gives total sales of \$269 million in 2003, or 23% of the top 25.<sup>28</sup> In 2004 this number more than doubled to \$582, or 41% percent. In summary, games that carry a mature rating experienced a growth in both unit sales and revenue.

<sup>27</sup> Source: NPD Group/NPD Funworld. Both tables.

<sup>28</sup> According to the NPD Group, in 2003 the M-rated titles had the following average revenue prices (ARP): \$41 for *Grand Theft Auto: Vice City*, \$38 for *Halo*, \$48 for *True Crime: Streets of LA*, \$49 for *SOCOM II: Navy Seals*, \$40 for *The Getaway*, and \$49 for *Grand Theft Auto Pack*.) In 2004 ARPs were: *Grand Theft*

We may now look at what titles make an appearance when news media discuss the relationship between video games and violence. By performing a straightforward search on Nexis, I established a sample list of articles that contained both the terms ‘video game’ and ‘violence,’ for the period January 1999 to December 2003.<sup>29</sup> During this time interval the video game industry experienced its most dramatic growth since the mid-90s. This generated a list of 133 newspaper articles. Following, the articles mentioned game titles in relation the discussion on media violence. These titles are shown below, organized by rating.

**Table 6: All the Games Fit to Print**

Rank	Title/Series	Counted	ESRB
1	Doom/Quake Series <sup>30</sup>	25	M
2	Grand Theft Auto Series	17	M
3	Super Mario Bros. Series	5	E
4	Pac-Man Series	4	E
5	House of the Dead	4	M
6	Max Payne	4	M
7	State of Emergency	4	M
8	Mortal Kombat Series	3	M
9	Medal of Honor	3	M
10	Duke Nukem	3	M

Because game developers generally try to capitalize on their success by releasing sequels, games that are part of the same series are grouped together. Based on this sample, 41% (n=184) of the articles mentioned the same top ten game titles. More specifically, the top two titles, namely the Doom/Quake and GTA series, represent 22.8%

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*Auto: San Andreas* \$49, *Halo 2* \$52, *Halo* \$29, *Fable* \$49, and *Metal Gear 3: Snake Eaters* \$49. Combining the ARP with total units sold for each years gives \$269 million in 2003 and \$582 million in 2004, respectively.

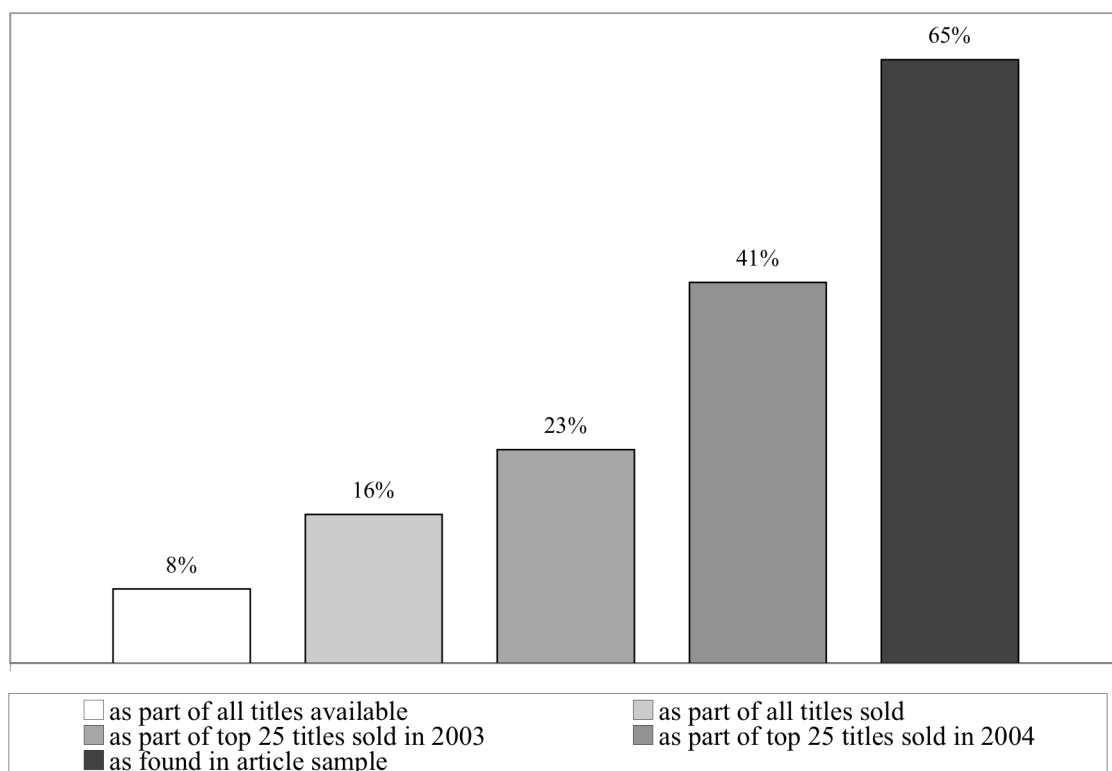
<sup>29</sup> The publications used were the following: The Washington Post; The New York Times; The Boston Globe; Chicago Tribune; USA Today; Financial Times Mandate; Financial Times (London); Time Magazine; Gannett Newspaper Group; Knight Ridder/Tribune News Service. Obviously, a game title was only counted *once* per article.

<sup>30</sup> Once a video game becomes popular, software developers usually bring out a sequel to a title. These sequels are generally not radically different from the original game. For this reason games that were part of one and the same series are counted as one, rather than individually. While the game titles that have appeared under the ‘Doom’ and ‘Quake’ had different developers, namely IdSoftware and Activision, but in both cases Activision was the distributor.

of the total sample. On the whole, of all the titles found, 65% (n=119) fall into the rating category '17 and over' versus 35% (n=65) '17 and under.'

So what's the point here? The sales numbers show a strong increase in the percentage of violent video games titles as well as the revenue that they generate. While games rated 'M' only represent 8% of the total titles available according to the ESRB, and 16% of the total market, the top 25 games for both 2003 and 2004 shows a hefty presence of violent video games, namely 41%. However, 65% of the news articles analyzed made reference to violent games. In other words, media's attention tends to go out to violent games, even though this is a small category within overall industry sales.

**Graph 5: Video Game Violence Overview**



According to the data news articles focus primarily on the same game titles. The prevalence of the *Doom/Quake*- and *GTA*-series suggests that these titles have become short hand for 'violent video games.' However, based on the ESRB ratings and NPD sales numbers, the available video game titles are far more numerous, and therefore in

sum less violent. Describing the movie industry based only on movies like the “*Terminator*” series and “*The Passion of the Christ*” makes little common sense, but this is exactly how video games are represented. It is this skewed notion of video games, and the alleged causality with violent behavior, that stands at the center of video game being a socially destructive force. However, it also testifies of a reluctance to consider a larger, more general view of this media technological phenomenon: “the campaign against virtual violence is as shallow as the images it condemns.” (Gitlin, 2001:196) It is here that we encounter the most common accusations against video games, and the third point of relevance, namely that they are a socially destructive force within society.

Historically, games and play have historically been regarded as trivial and frivolous. The emergence of chance games during a time when the idea of divine predestination governed Europe’s worldview. Both Catholic and Protestant churches condemned dice games, “for the many sins and really horrendous cases that originate from such abominable games.” (Arcangeli 56)

Moreover, closely associated with leisure, games merely serve to relax the worker. According to De Grazia, leisure’s primary purpose is its relation to non-leisure, or work:

[a]musement (paidia) and recreation (anapausis) are necessary because of work. They are not ends in themselves. (15)

The juxtaposition of work and play is pervasive throughout human history. And, consequently, the indulgence in game play for several hour a day is highly suspicious.

His book, *The Wealth of Nations* [Adam Smith], advances the thesis that an act is truly productive if it takes raw material and makes it into something useful to man. Work like this is actually the beginning of wealth. The real producers are the workers. *The idle produce nothing.*

Adam Smith’s notion resembles that of the Florentines, but Smith had seen factories. In his time power machinery had already taken hold. The way work was changing would not have pleased Leonardo, nor Cellini, not if they themselves had to be the workers. It was a kind of work they had not bargained for—tied to other men as in galleys, tied to

machines by the clock, and paced by an unseen boss. This was the new order of things. The classical economists and democrats took over the idea, the anarchists found it just right, the socialists embraced it – all varieties of socialists: the communists, the Christian, utopian, and scientific. Of course, each used a different emphasis, but for all work was good or would become so, was the right of every man and duty as well. The philosophic doctrine they held in common was that through work and work alone does man produce and know. The doctrine was that of the Renaissance, the actual time was that of the nineteenth century; the ideal of leisure had long before taken its exit. (32, italics JD)

Video games, in this respect, present a trivial pursuit and are socially detrimental.

Putnam, for instance, famously argued that American society has experienced a decline in “social capital” as people have become increasingly isolated in their behaviors (2000). He points at the increase in solitary activities at the expense of communal activities.

According to the book’s site, over the past 25 years, club meeting attendance declined 58%, family dinners 43%, and ‘having friends over’ 35 percent.<sup>31</sup> Video games, according to the book, contribute to this decline in social capital, as Putnam’s

informal observation of Internet-based bridge games suggests that electronic players are focused entirely on the game itself, with very little small talk. (104)

Similarly, a 2007 study by Martin and Oppenheim found that 8- to 18-year olds who spend more time playing video games are more likely to “perform poorly in school, get into physical fights, and be physically heavier.” (HarrisInteractive, March 2007) It also found that about 8.5% of gamers in that age-range were pathological, meaning that their game play harmed

a person’s functioning in several areas, such as social, occupational, school, family or psychological functioning. (5)

The study, unfortunately, does not investigate the gaming habits of anyone over eighteen years old, making a comparison difficult, especially since the average gamer is 35 years

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<sup>31</sup> Source: <http://www.bowlingalone.com> Site accessed October 20, 2009.

old.<sup>32</sup> In addition, its observation that “pathological video game use is becoming an increasingly important issue,” is completely unfounded, as it presents no research results that say as much. Rather than a trend-based study, the researchers took “the temperature” of pathological video game use in children in the United States. By presenting incomplete data and unfounded claims, however, the report presents video games as a primarily negative influence.

It is this notion that I will challenge by showing that for gamers, and specifically modders, playing video games is a highly social activity. Already in 1983, observational research conducted by Gibb suggested “no evidence to indicate... that [arcade] games encourage social isolation, anger, antisocial behavior, and compulsivity.” (164) And a follow-up study by Selnow (1984), surveying well over two hundred 10 to 24 year olds about their needs and gratifications with regards to video games, found that “video games actually helped to socialize heavy players” (Schroeder 146).

Despite these historic predecessors in studying the social nature of video games, the 21<sup>st</sup> century media landscape has dramatically changed. Specifically, video game play has moved from the arcades into the living rooms, work place and onto our mobile phones. Contemporary game play is not simply an isolated activity focused on “the game itself,” as Putnam claimed, but instead exists within a much larger (social) environment. The examples are many. Popular genres such as the Massive Multi-Player Online Role-Playing Games, or MMORPGs, have experienced tremendous growth in recent years. The crux of its game play lies on the collaboration and cooperation of players in solving ‘quests,’ akin to the well-known *Dungeons & Dragons*. Similarly, 2009 was the year in which so-called ‘social gaming’ first made its appearance. These relatively simple games emerged on social networking platforms such as Facebook and MySpace, where they are

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<sup>32</sup> Source: the Entertainment Software Industry, *Industry Facts*, 2009. Available at: <http://www.theesa.com/facts/index.asp> Site accessed November 2, 2009.

among the most active applications. So instead of arguing that video games have grown solely due to technological advancements, their success (despite the economic downturn!) also comes from an increased facilitation of social interaction.

To make this obvious, I have two avenues of research available. The first is to describe the tremendous growth of the video games industry, and argue that if games were truly void of social significance, then people would ostensibly not spend as much time and money on them. While the following section does present this argument, the onus of the current work is of another sort. Namely, if we accept that games are not socially facilitating in any way, then we should find no evidence in game play. But looking at a large data set of players, mods, and game play, shows that video games are highly communicative and exist at the nexus of contemporary social intercourse.

## CHAPTER 3: GAMES AS COMMUNICATION

*The chess board is the world, the pieces are the phenomena of the universe, the rules of the game are what we call the laws of Nature.*  
-- Thomas Henry Huxley, 1868

### I. Introduction

The following chapter lays out the central concepts of the overall study. It offers a discussion and definition of communication, followed by an approach to games. A third section connects these two concepts under the central notion of games as communication. Finally, the chapter closes by introducing the debate on how people, both amateur and professional, employ video games as a form of expression.

Playing a game is a communicative exchange. Games are microcosms, miniatures which model and form a self-contained reality, and employ habits, ideas and, more abstractly, entire epistemologies from the larger world that surrounds it. With a few philosophical exceptions, a game is always a reduced, simplified version of a larger surrounding world, and therefore employs a reduced set of principles to produce something that does not aspire to be a holistic representation. By offering a particular lens that, in effect, editorializes the world, a game presents a dynamic modeling of a particular idea. Our role as a player demands that we internalize the rules prescribing a game's "incarnate grammatical logic" (Dewey) in the same way that reading demands literacy. Games are communication, in short, precisely because the very fabric of play incorporates a subjective perspective, cultural lens or ideology.

### II. What is Communication?

Communication is an act. It is the active pursuit by which, through externalizing our own private thoughts and internalizing those of others, we enter into a dialogue with

the world around us. The difficulty in understanding communication—to say something about the way we say something—lies in it being a process that changes according to environmental factors.

Succinctly, there are two main schools in the study of communication. The first, known as the “process school,” sees communication as the transmission of messages. (Fiske, 1982:6) This traditional model in communication studies originates from a linear explanation developed by Shannon and Weaver. A sender sends a message to a receiver through a channel. The implication to many social scientists (and derivative practices such as marketing) is that a person’s behavior may change when presented with new information. This is the *informational* model of communication, because it focuses on the process of informing, literally entering into and guiding. Advertising, to name one variety, revolves singularly around changing people’s (spending) behavior according to a client’s interests. A carefully constructed message is sent through a channel aimed at a particular sub-set of society (e.g. women between 18 to 34 years old) in the hope to increase the monetary commitment of that sub-set on a client’s product. (See for instance Adorno’s *A Social Critique of Radio Music*, 1945.) This model of communication assumes that a person’s opinions and beliefs, and subsequent behavior, can be manipulated and nudged into a particular direction. Or, that an individual’s private interior space can be penetrated and informed by a new idea (information), which translates into a new behavior.

Over time, a host of scientific and corporate institutions has adjusted and refined this model. The original notion of linearly transmitting a new idea into an existing brain has become increasingly complex and incorporated a growing number of variables that affect an effective absorption of information. An example of a communication theorist who subscribed to this model of communication as ‘education’ is Walter Lippmann.

After World War I, where he worked in propaganda, he developed a skeptical *Menschbild*: “[p]eople [...] were conditioned not only by what they were persuaded to believe, but also by the unconscious workings of their own minds.” (xii) Overwhelmed and unable to digest the amount of information that competes over their attention, interior space becomes cluttered and loses its ability to absorb new information. Thus, Lippmann argued, society needed experts who would help people make sense. Implicit in this notion of communication is that ‘reality,’ despite its enormity and complexity, can theoretically be understood in its totality. Speaking in the context of how news informs public discourse, an effective public opinion only exists when the individual minds that make up the public possess correct representations of the world. A mind needs to be filled with the proper information in order to make the correct decisions in the future, because the complexity of the environment that surrounds it obfuscates and jeopardizes its ability to singularly extract relevant information from that environment *on its own*. The human mind is essentially a rigid, uniform device that can be made to operate more or less efficiently, but is universally limited in its capacity. Derivates of this basic model are Laswell’s famous “*Who says What in Which channel to Whom with What effect?*” (1948), Newcomb’s social equilibrium model (1953), Westley and Maclean’s mass communication model (1957), the more complex varieties suggested by Gerbner (1959) and Jakobson’s linguistically based model that focuses on the constitutive factors in an act of communication and its emotive, phatic, metalingual, and poetic functions (1960).<sup>33</sup>

Much of the research on video games has employed a linear, informational model of communication. In their study titled *Arousal Transfer or Desensitization*, Sherry et al measured the immediate effect of playing a (violent) game on how respondents regarded a violent scene from a film. (2001) Similarly, Anderson & Dill (2000) asked a group of

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<sup>33</sup> For a more detailed description of these models of communication please refer to Fiske, John (1982) “Introduction to Communication Studies,” 2<sup>nd</sup> Edition, Routledge: London, New York.

undergraduates to play either a violent or non-violent game and afterwards compete with each other in time-constrained tasks. Upon beating their opponents at a task, participants were able of delivering “noxious noise” to the losers. (Lachlan, Smith & Tamborini, 2005). Anderson and Dill found that those who had played a violent game prior to the tasks, delivered

significantly longer blasts of noise than did those who played the non violent [sic] video game. [...] Thus, aggressive video games are capable of increasing aggressive behavior. (Lachlan 5)

The common protocol in establishing a link between violent video games and aggressive behavior is as described in the abstract of Kirsh’s *Seeing the World Through Mortal Kombat-Colored Glasses* (1998) who writes:

The participants playing either a very violent video game or a relatively non-violent video game for several minutes. Children were then read five stories in which a same-sex peer caused a clearly negative event to happen where the peer’s intent was ambiguous. After each story, children were asked a series of questions about the peer’s intent, subsequent actions and potential punishment. (177)

Immediately after exposure to video game violence, studies like these and others measure people’s responses. Striking among these studies is how the methodology only records aggressive behavior directly following an exposure to violent game play. The studies here mentioned illustrate the often short-termed, limited focus of such research. According to Sherry, one of the experts in the field,

[c]onspicuously absent from the video game research are other designs used in the study of television violence such as longitudinal designs and field experiments. These types of research designs are more complex and expensive to undertake, so their absence may merely reflect the fact that video game research has only recently begun. However, these designs often provide the greatest ecological validity and allow researchers to make stronger predictions of social significance. These types of designs are crucial to understanding some of the relationships whose explanation is missing in the existing studies. For example, there is a small indication that the effect size increases as the subjects get older, controlling for playing time and game type (year of study). This finding seems counterintuitive-- we would expect younger children to be more vulnerable to the effects of video games. A longitudinal design would be

helpful in assessing the effects of the games throughout the life span. A cohort study would also be helpful in settling the priming effects vs. social learning debate, as social learning predicts relatively enduring effects while priming effects predicts short-term effects. How long do the effects last? Are they translated into the real world? Field experiments would be helpful in assessing the social significance of the video game effects. (2001:24)

Within the isolated confines of the psychology lab, communication is an informational process. According to Williams, for instance, the bulk of studies relies on “only two methods: the survey and the laboratory or observational field experiment.” (2003) The only long-term research study available on the relation between video games and aggressive behavior dates back to 1995. In *Cognitive Tempo, Violent Video Games, and Aggressive Behavior in Young Boys*,” Irwin & Gross conducted a six-month field experiment among elementary school children, and, in fact, found that those “who were heavily exposed to video game violence [...] became more physically aggressive” during a “free-play period” immediately following exposure. (1995) But, despite being the exception rather than the rule, the study is almost 15 years old and its ability to make claims about society at large inevitably weakened. This does not deter advocates from using it as ammunition. In *Media and Risky Behaviors*, Escobar-Chaves and Anderson (2008) use the Irwin & Gross study to “demonstrate that American adolescents are engaging in a number of unhealthy behaviors that impose huge societal costs [...]: obesity, smoking, drinking, sexual risk taking and violence.” (147)

Without any larger context, whether in-depth or long-term, assessing any corrupting influence of violent video games means looking for a linear ‘effect.’ Because of its obvious merits, research on a connection between violent video games and aggressive behavior might benefit from relating its lab-based hypotheses to a real-world environment. The fundamental misconception of video games as a-social originates in the employment of a limited research paradigm. Regarding the relationship as merely linear,

and consequently limiting the bulk of its research to highly controlled circumstances, limits the potential of generalized statements. And consequently, it can be no surprise that scholars remain divided on the issue (Williams, 2006). Video games, in other words, have long been considered an anti-social force in society, because our underlying preconceptions about communication have not considered a larger social, technological and cultural environment.

The second school, the “semiotic school,” concerns itself with the production and exchange of meanings. (Fiske, 1982:2) It originates in the idea that people are in fact perfectly capable of assessing relevant information and of creating common meaning. Communication is an act of expression that equally informs and is informed by experience. The human mind, given the opportunity, develops certain cognitive routines, “habits of thought” (Veblen, 1899:119), which serve as a lens with which we engage the world around us. An old Indian adage goes: “When a pickpocket meets a saint, all he sees are his pockets.” Meaning originates from the interplay between the human mind and environmental variables. Critical in this model is that communication is a deliberate, chosen act that emerges from the affordances and constraints existing in everyday life. This is the *experiential* model of communication. Traditional examples of this model are Peirce’s “elements of meaning,” (1931-58) which is very similar to Ogden and Richard’s triangular relationship between referent, reference and symbol (1923), and finally Saussure’s model, which expanded on both by adding “external reality or meaning.” (Fiske 1982:41-43)

But perhaps its most relevant difference from the informational model is its wholesale acceptance of subjectivity. Whereas the linear model focuses on a seemingly isolated communicative exchange, the experiential model imagines communication as

ultimately connected to a larger world. One classical text that seeks to unearth this connection is *Preface to Plato*, in which Havelock writes about ancient Greek oral practices:

The formulaic style characteristic of oral composition represented not merely certain verbal and metrical habits but also a cast of thought, or a mental condition. (x)

As its dominant mode of communication, the nuts and bolts of an orally transmitted and preserved collective memory relied on the meter, rhythm and harmony of the spoken word. This intimate marriage between *what* was said and *how* it was said, allowed a society inhabiting a scattered cluster of islands in the Mediterranean to maintain a sense of community. But, more so, “forms of expression [...] were also forms of experience.”

(x) In reciting Achilles’ adventures,

[y]ou yourself became Achilles and so did the reciter to whom you listened. Thirty years later you could automatically quote what Achilles had said or what the poet had said about him. Such enormous powers of poetic memorisation could be purchased only at the cost of total loss of objectivity. (45)

Plato’s fierce condemnation of poetry is rooted in its ability to doll up and use the resources of oral practice (e.g. meter) to deceive: “Just as the graphic artist employs illusionism to deceive us, so the acoustic effects employed by the poet confuse our intelligence.” (5) By contaminating expression, poetry also corrupted experience.

Aside from Plato’s critique, environmental variables also influence how people communicate. For one, Greece’s famous pottery was ideally suited for a sea-faring society (rather than parchment or chiseled stone). Jars and urns were, in fact, an early means of propaganda. (Hasaki, 2002) Subjective space, the world we live in, thus affects how we interact and create meaning. Along these same lines, Renaissance artistry gave birth to an array of persuasive techniques, which in a society where few could read or write, let alone in Latin, allowed many to understand the essence of their minister’s

sermons. Offering a realistic representation of biblical scenes on the walls and ceilings of churches enabled average believers to see both the glory and horror that fought over their soul. Dramatic high ceilings, decorated with a colorful array of lofty angels peeking down from behind their clouds, draw one's eyesight upward. The church building was the very medium, an environment subjected to the logic of an epistemology and squarely focused on making itself understood. This phenomenon led Panofsky to insist on asking not only *if* a society has perspective, but also to ask *what* perspective it has. (1997:41) In *Gothic Architecture and Scholasticism* (1951) he similarly makes the argument that scholastic organization of order and thought informed the architectural style of Gothic churches.

Communicative exchange, in short, does not occur isolated from a larger reality, both physical and epistemological, but, rather, in correspondence to it. It is here that the traditional transmission and semiotic models of communication intersect and allow us to focus our attention on the habits of communication and the larger environment in which they emerge. (In chapter 5 I make the case that video games have not merely sprouted alongside other forms of media, but in response to their totality.) Three more studies on the dialectic between experience and expression come to mind. Walter Benjamin, for one, connected cinema to the changing conditions of the urban environment. In particular, the introduction of the trolley of the early 20th century confronted a lot of people with an alienating sense of motion and movement. Benjamin noticed a clear relationship between the increasingly frantic sensory experience of the urban landscape and the visual kinetics of the silver screen. In the same way that zippy, motorized traffic began to replace the humble pace of the horse and carriage, so too did cinema differ from theatre. To Benjamin the sudden visual transitions between characters and scenes were analogous to the increasingly stop-and-go environment of the city. And as the acceleration of everyday

life became more widespread, he noted an epistemological consistency, with film as “the art form that is in keeping with the increased threat to his life which modern man has to face.”<sup>34</sup>

More recently, others have drawn similar parallels between the organization of space and our modes of communication. In “Television and suburbs,” Spigel argues, the phenomenon of suburbanization in the U.S. and the concurrently spreading television

are both engineered spaces, designed and planned by people who are engaged in giving material reality to wider cultural belief systems. (15)

One author even goes so far as to claim that the beliefs informing both television and suburbs is a “War against the center.” (Galison, 2001) After the bombings of Hiroshima and Nagasaki, the U.S. Strategic Bombing Survey concluded that

[t]hough a reshaping and partial dispersal of the national centers of activity are drastic and difficult measures, they represent a social and military ideal towards which very practical steps can be taken once the policy has been laid down.

Of course, a variety of other factors play into this decision. But certainly, multiplying civilian targets reduces the threat of massive loss of life, and produces places where people live less “attractive atom-bomb targets.” Galison adds “satellite towns and villages made urban regions the right scale on which to re-think patterns of communication, government, and demography.” Television was a natural fit for this newly imagined world.

Finally, in an obscure essay, Simmel discusses the very core of this interaction between the conditions of everyday life and common understanding. (Frisby 1991)

...the creative dynamism of life produces certain artefacts which provide it with forms of expression and actualization, and which in their turn absorb the constant flow of life, giving it form and content, scope and order: for example civil laws and constitutions, works of art, religion, science, technology and innumerable others. (75)

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<sup>34</sup> As quoted by Singer in Charney and Schwartz Cinema and the Invention of Modern Life. University of California Press, Berkeley and Los Angeles, CA, 1995. Pg 94.

Because communication takes place within an environment, which is subject to change, communication itself is also subject to change. The artefacts, as Simmel labels them, that we use to create meaning

have their own logic and laws, their own significance and resilience arising from a certain degree of detachment and independence vis-a-vis the spiritual dynamism which gave them life. At the moment of their establishment they are, perhaps, well-matched to life, but as life continues its evolution, they tend to become inflexible and remote from life, indeed hostile to it. By the time one form has fully developed, the next is already beginning to take shape beneath it, and is destined to supplant it after a brief or protracted struggle. (75)

The relationship between communication and environment, thus, is a dialectical one. The history of communication, along these lines, is far from a clean, linear development, but rather a messy coincidence of many factors. And in this history,

[n]ew practices do not so much flow directly from technologies that inspire them as they are improvised out of old practices that no longer work in new settings. [...] Media are not fixed natural objects; they have no natural edges. They are constructed complexes of habits, beliefs, and procedures embedded in elaborate cultural codes of communication. [...] New media, broadly understood to include the use of new communications technology for old or new purposes, new ways of using old technologies, and, in principle, all other possibilities for the exchange of social meaning, are always introduced into a pattern of tension created by the coexistence of old and new. (Marvin 1988:5-8)

And so for purposes of this dissertation, communication is regarded as an act that takes place within and because of particular environmental conditions.

Approaching video games as an informational communicative exchange quickly leads to a conclusion with regards to a detrimental ‘effect’ on society, in the same way that we could dismiss the entire alphabet because it allows us to spell curse words.

Alternatively, looking at video games as intimately connected to contemporary media practices and habits allows identifying their social merits. To understand this environment, how people strive to make sense of it, and how video games play a part in

that process, we must investigate the contemporary media conditions of everyday life. But even before that, we must assess what a game is.

### **III. What is a Game?**

Games are socio-cultural artifacts, which at once are connected to and separate from their surrounding environment. In his *Homo Ludens: a Study of the Play-Element in Culture*, Huizinga draws a connection between play and the everyday. (1950) Critical in his analysis is the concept of the “magic circle,” a space that presents a temporary world “within the ordinary world, dedicated to the performance of an act apart.” (10) Play, in and of itself, is an activity that occurs entirely separate from whatever else is going on, within the confines of a magic circle. Thinking of how the various forms of demarcation hold a vital role in many games, it seems obvious that play-space is different from the rest of the world. In soccer, the game stops the second the ball goes beyond the boundaries of the field. Basketball, football and baseball similarly incorporate the lines that delineate the play-universe within the rest of the world. Looking at play spaces in urban environments, such as the basketball court on New York’s West 4th Street, we immediately notice how fences and walls segregate these various magic circles from the rest of the city. For practical purposes, the ball cannot accidentally leave the court and roll into traffic, nor can pedestrian hooligans interrupt the game. On a philosophical level, the underlying modernist logic prescribes a fundamental difference between play and work, between the frivolous and the serious, leisure and work. (De Grazia, 1994) As we enter into the realm of play, we leave behind the realm of the real.

But this separation is only skin-deep. The rules of a game may prescribe and enforce certain consequences regarding its demarcation, but these lines are porous. Both the play-world and the real world interact throughout play. In the above-mentioned

examples, players who are within the magic circle also relate to the people (fans, sponsors) outside of it, and vice versa. None of the helmets, shorts, shirts, headphones, beverages, towels, and balls are accidental props, but are highly symbolic elements and essential components. According to Huizinga, “the turf, the tennis-court, the chessboard and pavement-hopscotch cannot formally be distinguished from the temple or magic circle.” (20) Despite a seeming physical separation of one space in which our code of conduct constitutes one reality (e.g. soccer) from another (e.g. onlookers), games are a product, or an embodiment, of a society’s beliefs and practices.

Playing, of course, is also a performance. At some fundamental level, the player is required to perform a particular task within the rules of the game. In much the same way that arcane societies would execute a particular ritual (e.g. Olympic games) to appease the powers that be, so too does contemporary society physically act out its beliefs and ideas. Without going into the nature of those beliefs, it is important to note the tangible dimension that game play thus entails. Particularly with respect to video games, the physical aspects of game play need to be addressed. In the past few years, for instance, all major hardware manufacturers in the gaming industry have started to focus on a physical interface. Spearheaded by the Nintendo Wii, which employs wireless remotes that use motion-detection for controlling events on the screen, both Sony and Microsoft are set to release similar devices. At the Electronic Entertainment Expo in Los Angeles, Sony announced it was also developing a motion controller. And Microsoft is expected to release its project Natal in late 2010, which offers user interaction without even requiring a handheld device or remote. Robbie Bach, President of Microsoft’s Entertainment and

Devices division, announced in January 2010 that “70-80% of the game publishers in the world are committed to releasing Natal-based games.”<sup>35</sup>

But perhaps the most significant development on the intersection between physical, tangible experience and video games is the success of the musical game genre. Harmonix released *FreQuency* and *Amplitude* with funding from Sony Entertainment in 2001 and 2003, respectively. In these games the player “travels down an octagonal tunnel, with each wall containing a musical track. These tracks contain sequences of notes.”<sup>36</sup> The objective is to press the controller buttons in correspondence to the track.

**Image 2: FreQuency (screenshot)**



Despite an initially lukewarm reception, Harmonix continued its pursuit of incorporating the visualization of music in games. The company made a big name for itself in 2005 when it released *Guitar Hero* in collaboration with Red Octane. Instead of using a traditional controller, the player uses a plastic guitar. The musical sequence can only be completed successfully by pressing the buttons and strumming at the right time. The

<sup>35</sup> Brice, Kath (2010) “Microsoft: “70-80% of publishers doing Natal-based games.” Available at [www.gamesindustry.biz](http://www.gamesindustry.biz). Site accessed January 13, 2010.

<sup>36</sup> Source: <http://en.wikipedia.org/wiki/FreQuency>. Site accessed January 13, 2010.

popular Japanese *GuitarFreaks*, developed by Konami for arcades and Sony's PlayStation platforms, served as inspiration. After a string of acquisitions following the game's success, MTV finally acquired Harmonix, hoping to capitalize on its access to music rights and combine it with game play. In 2009 this led to the release of *The Beatles: Rock Band*, which features music by the famous group. The music-based games have quickly become a staple in the games industry, totaling \$1.4 billion in sales in 2008.<sup>37</sup>

Considering this growing popularity of video games that offer a tangible interface other than the classic joystick, academics, too, have started to pay attention. David Parisi (2007) for instance explores how "new video game interfaces" for games like *Guitar Hero* and *Dance Dance Revolution* "invoke the whole body as a participant in the game text." (2) These "bodily interfaces" present a new frontier in the traditional household-based console experience, since elaborate input devices are common to arcades but have so far been unsuccessful in entering private residences. For Parisi this means game interfaces

can also be used to teach player about the bodily habits of those in other cultures. By forcing the player to assume and learn a particular bodily motion, these interfaces allow players to enter into [a] mimetic relationship with a *facsimile* of another culture's bodily habits. (15)

Another scholar of these tactile game experiences, Gillian Andrews, reasons along the same lines. In discussing *Dance Dance Revolution* (DDR), a game that involves a 'mat' with buttons, which the player press by performing dance moves, she argues that it makes a cultural 'text' tangible.

DDR takes creative intertextuality out of the virtual world of the game. It gives us play writ large in a range of forums. The connections players make to other texts are visible on their bodies, not just on the screen, as

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<sup>37</sup> Ogdan, Gavin (2009) "Analyst: Music Games "Plummet" in 2009." Available at: <http://www.computerandvideogames.com/article.php?id=230131?cid=OTC-RSS&attr=CVG-General-RSS> Site accessed January 13, 2010.

they choose different dance moves and styles. Arcade visitors stop, watch, and comment on their style.<sup>38</sup>

Despite the various merits and additional depth that this genre presents to the video game experience, it is not the physical performance that is central to the present study. Ultimately the player is still tasked with organizing visual information on the screen. While the various input devices are highly innovative and creative (for the game *DJ Hero* the player uses a custom turntable as an input device), the emphasis remains on successfully interpreting visual information.

**Image 3: DJ Hero Turntable Controller**



**Image 4: DJ Hero (screenshot)**



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<sup>38</sup> Andrews, Gillain (2008) "Land of a Couple of Dances: Global and Local Influences on Freestyle Play in *Dance Dance Revolution*," in *Fiber Culture*: issue 8. Available at: [http://journal.fibreculture.org/issue8/issue8\\_andrews.html](http://journal.fibreculture.org/issue8/issue8_andrews.html) Site access January 14, 2010.

In much the same way as football, basketball and baseball all revolve around a *ball*, so do video games revolve around *video*. This is a critical etymological piece of information for this form of game play, because it simultaneously centers the discussion on a subjective perspective (“I”) and on the visual nature of the experience.<sup>39</sup>

In the study of play in society, Huizinga’s student Roger Caillois continued the study of play in society and formalized the various forms. In *Man, Play and Games* he identified four formal types (1958):

**Agôn.** “[C]ompetitive” in nature, its “equality of chances is artificially created, in order that the adversaries should confront each other under ideal conditions, susceptible of giving precise and incontestable value to the winner’s triumph.” (14) Example: soccer.

**Alea.** This refers to “games that are based on a decision independent of the player, an outcome over which he has no control, and in which winning is the result of fate rather than triumphing over an adversary.” Alea “negates work, patience, experience, and qualifications.” (17) Example: lottery, dice.

**Mimicry.** A “temporary acceptance, if not of an illusion (indeed this last word means nothing less than beginning a game: in-lusio), then at least of a closed, conventional, and, in certain respects, imaginary universe..” (19) Example: role-playing.

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<sup>39</sup> In Latin “video” means “I see.”

**Illinx.** “[A]n attempt to momentarily destroy the stability of perception and inflict a kind of voluptuous panic upon an otherwise lucid mind.” (23)

Example: rollercoaster.

In addition to defining a range of dominant play forms, Caillois also established the intimate relationship between the micro-universe of a game and its larger reality:

A game that is esteemed by a people may at the same time be utilized to defining the society’s moral or intellectual character, provide proof of its precise meaning, and contribute to its popular acceptance by accentuating the relevant qualities. (2001:83)

Games and play, regardless of form and internal structure, draw on ideas that exist outside of it, and in turn reflect on the conventions that inform them. Geertz, another commonly mentioned scholar in this literature, describes the Balinese cockfights. Instead of focusing on the rules of the game, Geertz excavates the social relation that Balinese society has with the cockfight. (1973) In a famous passage, Geertz points to the double entendre as “deliberate,” arguing that “the deep psychological identification of Balinese men with their cocks is unmistakable.” (60) In much the same way, the early Olympic games represented a “direct enactments of the agon, or struggle of the Sun god. The runners moved around a track adorned with the zodiacal signs in imitation of the daily circuit of the sun chariot.” (McLuhan, 1964:318) According to Birelli, in an article that marries Durkheim’s social theory of religion with Goffman’s ideas of everyday life, an everyday ritual like sport allows us to reaffirm the values of the social order. (1981) Games thus connect us to a larger reality, and often serve as a proxy for a larger cosmological phenomenon.

#### IV. How Do Games Communicate?

In a visit to the zoo, child psychologist Gregory Bateson observed two young animals play-fighting. During the struggle “it was evident, even to the human observer, that the sequence as a whole was not combat.” Instead of biting their adversary, the animals simply nipped them, which, so argues Bateson, is evidence of a form of meta-communication:

These actions in which we now engage do not denote what those actions for which they stand would denote. (3)

The “playful nip,” in other words, has a “complex relation to the earnest bite.”

(Jayemanne, 2005:1) A simple playful gesture may carry a complex communicative meaning. In the same vein, the Dutch proverb “Voetbal is oorlog” (soccer is war) equates a simple ball game with war. To the Dutch, the subtext of watching their country play an innocent soccer match against Germany carries a slew of connotations originating from World War II. Through the use of communal elements in both universes, such as flags and the national anthem, the Dutch and German teams come to represent the Netherlands and Germany, respectively. Along these lines Boyle and Haynes argue that mediated sport serves “as a forum through which cultural and national identities are projected.” (1996:550) Clearly, there is more to game play than, in this case, a few men in shorts running after a ball. A theorist like McLuhan even goes so far as to claim that games, in particular popular sports, are “outer models of inner psychological life.” (2003:318) Despite his almost exclusive focus on the function of games as “counter-irritants or ways of adjusting to the stress of the specialized actions that occur in any social group,” McLuhan is not far off the mark. (316)

The “reality effect” of First Person Shooter games (FPS), for instance, consists of experiencing a simulated environment first-hand, raising the suggestion that it is in fact an authentic experience or closer to the ‘real.’ To this end, many games explicitly

incorporate everyday elements or places to further convince the gamer of how accurately it describes implicit elements. The FPS *Full Spectrum Warrior* boasts its use of “tactics based on real-world urban warfare techniques.” Its animation is “modeled after a combat veteran who is also an active-duty Sergeant in the U.S. Army Rangers.”<sup>40</sup>

The presence of real-life elements, whether symbolically or game mechanically, is integral to the strength of the relationship between a game and the reality it describes. The use of constants in both universes allows two separate experiences to mesh and inform each other. In *Tents and Pyramids: Games and Ideology in Arab Culture from Backgammon to Autocratic Rule*, Khuri looks at various elements of Arab society to explain how “Arabs see and deal with reality.” (1990:11) He describes how “backgammon is styled after the cosmos”:

[t]he board, when open, is a perfect square signifying the globe; the red and black striped khanats (entries) signify day and night; the four houses signify the four directions or seasons; the twelve months entries on one side signify the twelve months of the year; the six khanats in the house, the six working days of the week; the thirty stones or chips, the thirty days of the month; and the twenty-four entries, the twenty-four hours of the day. (17)

Modeling a game after a sexagesimal numbering system carries a deeply symbolic meaning, because, in this case, it reproduces the same technological system used for every day calculations in commerce and astrology. This propagates an apparent logic by establishing a sense of epistemological consistency, as the demands made on an individual in order to play the game correspond to those that exist beyond it. A game in this way communicates various human-designed constructs that guide, organize, and shape our lives.

Backgammon also presents a particular socio-political arrangement. The position of a single stone vis-à-vis the other stones is of crucial importance because it determines

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<sup>40</sup> Source: [http://www.fullspectrumwarrior.com/gm\\_features.php](http://www.fullspectrumwarrior.com/gm_features.php) Site accessed March 6, 2009.

its value. By itself it is vulnerable to capture. The formation of a group of two or more prevents this, which, according to Khuri, corresponds with the view in Arab culture that “[t]he safest position is to be part of a group (*khanat*).” (18) In

non-pyramidal structures, authority is not built into a hierarchical arrangement where roles are subordinated to one another in a graded system; it is, rather, derived from the use of sheer physical power. (11)

Along the same lines, but quite opposite to backgammon, chess offers a hierarchical structure. The location of the king largely determines the function of all of the other pieces. Often an entire game is won by claiming an early advantage over a single critical square on the board. Other pieces may be sacrificed to secure the safety of the king. In assessing one’s strategic position, bishops and knights carry a 3-point value (the “chess piece relative value”), but are second to rooks (5).<sup>41</sup> The Queen takes the cake with nine points. Despite slight variations, this value system constitutes a constellation among game pieces communicates a particular form of socio-political logic and organization.

Khuri offers insight into the way backgammon’s material dimension appears perfectly appropriate for nomadic (“bedouin”) players. With no need to differentiate between the stones, a collection of anonymous rocks suffices. In addition, the absence of visual demarcation as part of a layered organizational structure resonates strongly with the image of “a bedouin encampment composed of tents scattered haphazardly on a flat surface with no visible hierarchy.” (11) And the aforementioned integration of day and night, the seasons, and hours of the day, combined serve as a familiar aesthetic backdrop

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<sup>41</sup> “In chess, the chess piece relative value is a system of often assigned certain point values chess pieces to indicate their relative strength. These are used as a heuristic that helps determine how valuable a piece is strategically. These values play no formal role in the game but are useful to players, and are also used in computer chess to help the computer evaluate positions. [...] The value of the king is undefined as it cannot be captured, let alone traded, during the course of the game.” Interestingly, different grand masters attribute slightly different point values to pieces, or differentiate among similar ones. Using computer analysis of thousands of games, Larry Kaufman established the value of a knight and bishop at 3¼ and the queen at 9¾. Hans Berliner uses a decimal system, valuing knight (3.2), bishop (3.33), rook (5.1) and queen (8.8) differently. Finally, Lasker even attributes separate values for each pawn: rook pawn (½), knight pawn (1¼), bishop pawn (1½), etc. Source: [http://en.wikipedia.org/wiki/Chess\\_piece\\_point\\_value](http://en.wikipedia.org/wiki/Chess_piece_point_value) Site accessed August 21, 2009.

against which the game takes place. By connecting to particular visual codes and spatial organization a game thus relays certain aesthetic principles.

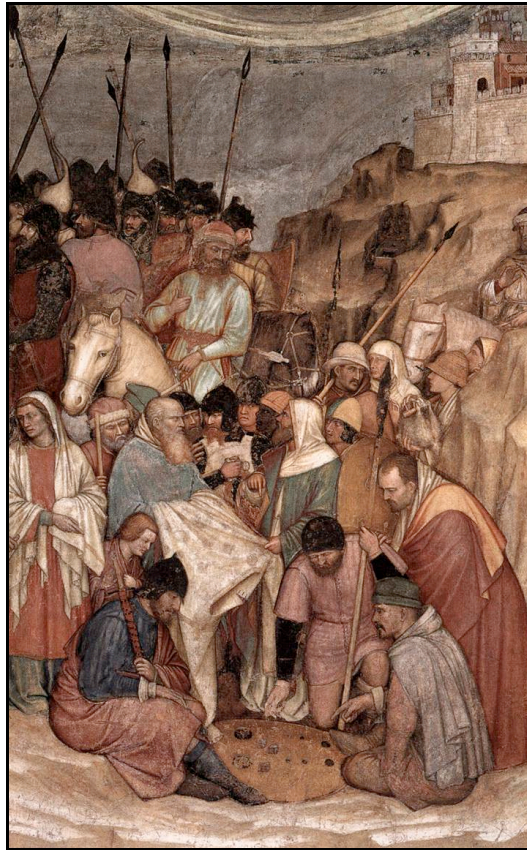
Perhaps most telling is the role and significance of dice in different settings. On the one hand, it is customary to Arab culture to insist on the “will of God.” When arranging an appointment, for instance, people commonly finalize the agreement by stating “God willing.” This tells those involved: “We will meet then and there, so long as the Almighty wills it.” Dice in backgammon, says Khuri, are literally “the will of God.” Both in real life and on the game board, it is God who ultimately determines whether people and khanats reach their destination. On the other hand, the explicit presence of a device that represents and imposes chaos goes squarely against the epistemology of Renaissance religion. Arcangeli explains how in a world that was created according to divine predestination, chance games (e.g. lottery) directly challenged the order of things. Such rigidity, says Arcangeli, provided the ideal environment in which chance games such as the lottery could blossom and emerge. (2003) In addition, Continental religion’s abhorrence of chance games is perhaps most evident in the recurrent depiction of soldiers gambling for Christ’s robes. In Gaudenzia Ferrari’s fresco *Crucifixion* (1513) in Santa Maria della Grazie, Varallo Sesia, the bottom right corner shows three soldiers rolling dice. Their eyes are turned away from the figure above. A weeping mass looks up to their lord’s predicament. The symmetrical composition and several spears and arms pointing in the same direction help establish the character on the cross as the focal point. The significance of the scene with regards to chance games lies in the apparent obliviousness of the gamblers.

**Image 5: Ferrari's Crucifixion (1513)**



Similarly, Altichiero da Zevio's *Crucifixion* (1376–1379) shows a similar arrangement. This detail from a fresco in the Basilica di Sant'Antonio, Padua, shows a group of men with stern looks on their faces quibbling over a garment. Here, too, the gamblers are woefully uninterested in the remainder of the scene (not depicted here) by focusing their attention solely on the dice game. There is a definite criticism implied: it is immoral to turn away from the real world in favor of the game.

**Image 6: Altichiero da Zevio's Crucifixion (1376–1379)**



Common among these paintings is the idea that games divert or substitute by offering an alternative. More abstractly, a game presents a miniature version of a larger epistemology (i.e. social organization) by assigning values to its components and relations, as well as its own social position. The importance of the king is inherent in its central role on the chessboard, its privileged maneuvers (roccade), and the fact that the game ends, and the kingdom falls, once the players declare “shah mat” (checkmate). Likewise, the rule that only a single stone can be captured expresses the vulnerability of the lonely khanat. These micro-universes, based on ideas that relate to the larger complexity of everyday life, offer an interpretation of everyday experience. They ludically tell us what something is like and not like. Games communicate because an underlying epistemology informs their rules. An extensive anthropological focus on games has implicitly made them seem as naturally occurring phenomena. (Geertz) But in

fact games and the ideas they incorporate, and sometimes even promote, are often quite deliberate.

## **V. Deliberately Embedding Values in Game Design**

Shooting a longbow is difficult. It requires a great amount of physical strength and stamina to generate enough tension to propel an arrow with accuracy. Historically, the skillful use of a longbow has meant more than just the ability to effectively handle a ballistic weapon. It carries a great deal of symbolism, too. Egyptian rulers, for instance, annually proved their ability to rule by winning an archery contest. (Sports in Ancient Egypt, 5) And in Greece, so reads the *Odyssey*, Odysseus reclaims his household and wife, who found herself surrounded by suitors after his twenty-year absence, by shooting an arrow. His bow, too big and heavy for his competition to even lift, plays a critical role. After Odysseus shoots an arrow through the holes of twelve lined-up axes, his social status is reinstated and he is justified in subsequently slaughtering his competition. By winning a game, Odysseus executes “a highly significant theoretical extension of the function of ritual behavior [...] in the preservation of moral order.” (Birelli, 355)

Martial arts, like shooting a bow and arrow, play a significant social function. In the context of a contest, it helps establish a winner. Or, more anthropologically, it identifies the dominant male or female within the group. But there also tend to be greater social purposes. For instance, a group that regularly practices military exercises will be better able to defend itself. When playing a game, it is important to not just ask what skills it trains, behavior it rewards, or principles it teaches, but also what agenda or logic it serves. For example, “sixteenth-century English statutes attempt[ed] to ban a list of unlawful games, which predominantly fall within two categories: ball games selected because of their unruliness; and dice and other games significant as opportunities for



walled-in gymnasium. The game pitches two teams of five players against each other, each charged with successfully landing a ball in a basket attached to the back wall of their opponents' side of the field. Whichever team does so more often, wins. In his handwritten diaries, discovered by his granddaughter in 2006, Naismith dubbed the game "Basket Ball." What's interesting about Naismith's game is that it is not a spontaneously emergent form of play, but rather a deliberate design to meet certain circumstantial needs. Although Naismith's intentions were exclusively focused on the physical exercise it provides, the game also offers a particular interpretation of a division of labor. With only five people on each team, it is in everyone's interest to collaborate. Basketball thus promotes teamwork. In the same way that a game's architecture can be designed to meet certain environment conditions, it can also directly incorporate ideological values. Particularly in recent years this notion of embedding values into game play has gained more momentum among game designers. One example is the genre of games that are currently emerging under the moniker 'serious games,' which are video games designed with specific messages in mind. In a nutshell, serious games offer game play varying from a fully developed game mechanical architecture to an abbreviated simulation, and, at the same time, the game's content speaks to a cause, like world hunger, earning it the label 'serious.' In *Food Force*, for example, which was commissioned by the United Nations' World Food Program, the player embarks on a series of challenges related to an overarching theme of feeding the hungry. In one mission, the player is asked to make a food drop from an airplane and the challenge consists of correctly timing the maneuver. In another, the player has to mix nutrients to create the appropriate type of rice. With well over four million downloads, according to a 2006 NY Times article, *Food Force* has proven very successful in calling attention to the UN program.

A very different example is *Raid Gaza!*<sup>42</sup> The game, created by someone using the alias raidgaza and distributed on Newgrounds.com, opens with an overview of the Gaza strip, and a quote by Ehud Olmert, former Prime Minister of Israel, stating, “The parameters of a unilateral solution are to maximize the number of Jews, and to minimize the number of Palestinians.” After clicking “Go Raid ‘Em!” the game begins, but the player is not yet given control. After a flailing rocket emerges from a Palestinian cityscape and crashes somewhere halfway to what presumably is an Israeli settlement, a caricature of Olmert appears and says: “Commander, the Palestinians are at it again, firing Qassam rockets at Sredot. Please hurry and blow the Gaza strip up before anybody gets hurt.”

**Image 7: Raid Gaza!**



The objective of the game is to kill as many Palestinians as possible within five minutes. Following, the player is put in charge of four land lots where she may build a rocket facility, barracks, a headquarters, and an airport. Each structure has its own capabilities. An airport gives access to helicopters and airplanes, which, once built, attack the Palestinian city. The barracks train soldiers and tanks, who march directly toward it

<sup>42</sup> *Raid Gaza!* is available for free at: <http://www.newgrounds.com/portal/view/476393> Site accessed March 6, 2009.

and open fire. A rocket facility launches a large rocket, and headquarters allows faster building and asks the UN for financial aid. As the player develops her army, the opponent continues to periodically launch a single, flailing rocket without ever reaching any of the player's structures. Through caricature and the use of game conventions, *Raid Gaza!* argues that the military conflict between Israel and Palestine is unfair by setting up an unbalanced military situation. Stepping away from the argument, serious games purposefully incorporate opinions and deploy a game mechanical structure to make their point.<sup>43</sup> (Within a few months of the release of *Raid Gaza!* another designer released a similar game in response. That game, called *Save Israel*, requires the player to prevent rockets shot from the Gaza strip from reaching their targets (several Israeli cities).

According to game designer raidgaza,

An Israeli programmer has responded to *Raid Gaza* with a game claiming to show the conflict from the Israeli perspective (crap, I thought that was what I was doing): *Save Israel*. Considering Israel's long-going thing for disproportional responses, I was expecting a triple-A XBOX360 game, but I guess this will do for now. (quoted from author's profile on Newgrounds.com. Site accessed October 14, 2009.)

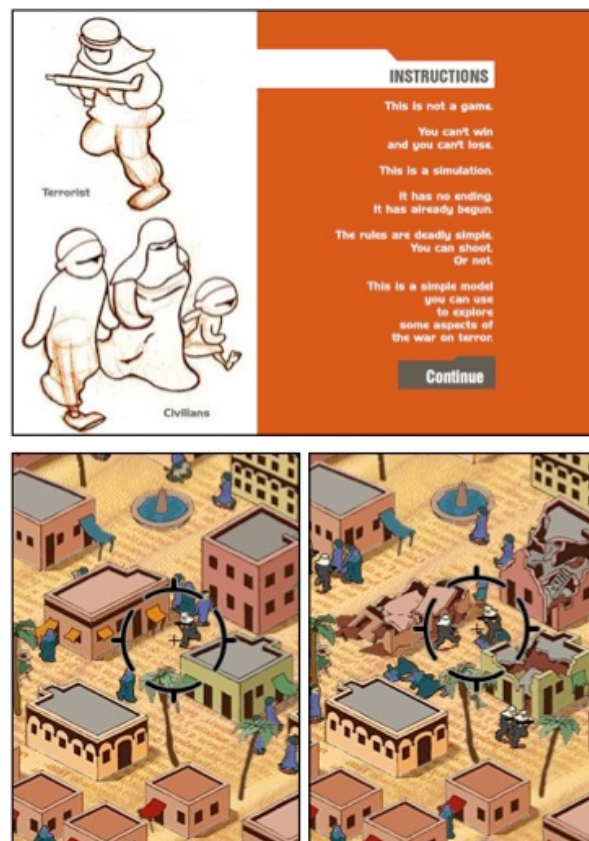
So-called *advergames* are another example of how certain ideas inform game design. But where serious games make a politically charged argument, *advergames* market a brand or product. In *Dairy Queen Tycoon* the player is put in charge of a Dairy Queen (DQ) store. The objective of each level is to make a certain amount of money by selling DQ products to customers. As the game progresses, the product inventory expands to increase the degree of difficulty, but, more importantly, one by one introduces the player to the actual DQ product line. By dressing up a game with proprietary logos and brands, it promotes the brand. In this way, *advergames* build on the same underlying principle of communicating a particular idea through game play as serious games.

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<sup>43</sup> Other examples are *Darfur is Dying* (commissioned by MTVu), and *Peacemaker*, which also focuses on tensions around the Gaza strip, but offers a more nuanced approach toward resolving conflict.

Perhaps the most prominent scholar investigating how games can incorporate particular ideas is Ian Bogost, an associate professor at Georgia Institute for Technology. In *Playing Politics: Videogames for Politics, Activism, and Advocacy*, he argues that games are effective at representing complex systems. Games and simulation can help understand the potential long-term implications of certain political decisions, Bogost claims. One example by his hand, *September 12th* (2002), positions the player overlooking a middle-Eastern cityscape where among a group of civilians there also are a few terrorists. However, shooting and killing the terrorists also destroys buildings directly surrounding them as well as killing innocent bystanders. After the dust settles, surviving civilians first mourn and subsequently morph into terrorists, and so on.

**Image 8: Ian Bogost's *September 12th***<sup>44</sup>



<sup>44</sup> The instructions read: "This is not a game. You can't win and you can't lose. This is a simulation. It has no ending. It has already begun. The rules are deadly simple. You can shoot. Or not. This is a simple model you can use to explore some aspects of the war on terror." The game is available online at: <http://www.newsgaming.com/games/index12.htm> Site accessed April 29, 2009.

Similarly, *Airport Insecurity* (2005) employs the player as a security guard at an airport, charged with checking people's luggage. As the game progresses, the line of waiting travelers grows longer and longer, ultimately grinding to a halt. *Airport Insecurity* boasts the chance to “experience TSA performance based on actual reports” from 138 U.S. airports.<sup>45</sup> The *point* of this type of game is its “procedural logic,” which Bogost defines as “the way that a videogame embodies ideology in its computational structure.” “[G]ames become rhetorical opinion texts that players can explore rather than merely read or view.” (2006) Bogost builds his theories on the “interactive narratives” that Janet Murray coined in her “*Hamlet on the Holodeck*.” (1997) She introduces her theory on digital environments by locating the “most active form of audience engagement [...] in role-playing clubs [where] players share a sense of exploring a common fictional landscape and inventing their stories as they go along.” (43) Murray identifies digital environments as “procedural” (i.e. executing a series of rules), “participatory” (“a codified rendering of responsive behaviors”), “spatial” (i.e. presenting navigable space), and “encyclopedic” (providing theoretically infinite resources). (71) As computer environments present an increasing degree of participation both in terms of consumption and production, people will color them according to their own palette. Or, as Bogost would have it,

in computing, procedurality refers to the core practice of software authorship. Software is comprised of algorithms that model the way things behave. To write procedurally, one authors rules that generate many instances of the same type of representation...producing many outcomes, each conforming to the same overall guidelines. (2006)

And so it is no surprise that Bogost and Murray, who are both faculty at Georgia Institute for Technology, co-authored a text called “*Game Design Education: Integrating*

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<sup>45</sup> Ian Bogost's company, Persuasive Games LLC, offers *Airport Insecurity* online for \$3.99, and is available at <http://www.persuasivegames.com/games/game.aspx?game=airportinsecurity> Site accessed March 6, 2009.

*Computation and Culture.*” (2006) In it, they argue for the “expressive potential of games” by marrying “the practice of game design with humanistic principles.” In a nutshell, they make the case that all those capable of writing procedural logic (i.e. computer programmers), should draw on a “humanistic framework.”

The game industry needs technically competent developers, artists, and designers fundamentally versed in the rich subtleties of human experience. This is perhaps the most promising and valuable collaboration academia could provide the game industry: potential developers, artists, designers, and marketers with a meaningful understanding of the human condition and the ability to express themselves through video games.

But it seems backward to ‘teach’ programmers about humanistic values (which remains poorly defined at best) and consequently hope to see a surge in digital production and video games focused on the human condition. Instead of awaking the technologists of the world to the notion of human drama, why not look at the ways in which humans express their drama through technology?

A scholar who has been active in this field is Mary Flanagan. With undergraduate degrees in feminist and film studies, Flanagan starts with ‘values’ and adjusts the process of design. In “*Locating Play and Politics: Real World Games and Political Action*,” (2007) Flanagan explores a few “locative projects involving play and games.” Flanagan sets out to identify the “ambiguous game experience” that “locative games” (meaning, they take place in public spaces) offer. In her words, she attempts to flesh out “the political implications and possibilities intrinsic in taking play to the streets.” (2) Flanagan immediately observes: “while the phenomenon of play is universal, the experience of play is intrinsically tied to location and culture.” Clearly the material context of a game may radically alter its experience and subsequent meaning. Think, for instance, of the difference between a life-size game of chess and one that takes place on a board. Flanagan uses the “flâneur” as a unit of analysis, aiming to transform “the formerly aristocratic walker [...] into a conscious, political actor.” French theory on spatial

practices locates the problem with space in constitutive ideologies. According to LeFebvre, “capitalist spaces [...] are systems of property relations, surveillance, and consumption.” (Flanagan, 4) And so flânerie transforms into “psychogeography” as a “method to study the world” to ultimately transform “the whole of life into an exciting game—the play principle before the work principle.” (4) Contrary to Bogost and Murray’s attempt to inject everyday experience into game play, Flanagan looks at everyday experience and identifies play. Sports and play are generally relegated to assigned spaces, extending the modernist idea of play being different from other aspects of daily life. But rather than having an artistic collective design a game that offers alternative readings of everyday experience—despite its obvious merits—such a top-down approach to using games as transformative devices is counterproductive. It ultimately relies on the same passive masses that seek to lose their shackles. Flanagan asks,

Who has time to engage in “‘alternate playgrounds,’ those urban spaces in which designers should ‘create new sandboxes in the metapolis’ and promote playful encounters? (4)

In a text she co-authored with Helen Nissenbaum and Daniel Howe, titled “*Embodying Values in Technology: Theory and Practice*,” Flanagan explores “the difficulty of taking values into consideration during design.” (2005) Whereas Bogost and Murray, in a way, present the “expressive potential of videogames” more or less as a solution looking for a problem (2007), Flanagan and Nissenbaum demonstrate empirically how to “systematically [bring] values into the process of design.” (2) After reviewing a variety of frameworks in software design, such as Participatory Design (democratic participation), Value Sensitive Design (systematic consideration for the interests of all stakeholders), Reflective Practice and Critical Technical Practice, they offer a case study on RAPUNSEL:

A large multi-disciplinary collaboration aimed at designing and implementing an experimental game prototype to promote interest and

competence in computer programming among middle-school aged girls, including girls from disadvantaged home environments. (14)

The motivating factor for this project is an observable absence of women in the field of computer programming. And this at once presents the ‘value’ Flanagan and Nissenbaum aim to incorporate: to create a game designed exclusively by teenage girls. One of the most striking observations emerging from this project was not the exact definition of the best way to design games, but rather something one of the 12-year olds said: “I want to knock down buildings...and want to design what I want [the game environment] to be like.” (40) In other words, a fundamental value that emerges from this experiment is a degree of autonomy, authorship or ownership: the ‘real’ playing of the game lies in designing it, in playing *with* it.

This “playing with the game,” or modding, is the topic of chapter six and a central aspect of contemporary game play. Before we open up that can of worms, however, we will first visit the military and the larger media environment in which we live.

## CHAPTER 4: MILITARY ROOTS

*It is my intent that we reach the stage where Marines come to work and spend part of each day talking about warfighting: learning to think, making decisions, and being exposed to tactical and operational issues.*

-- Marine Corps Commandant General Charles C. Krulak,  
directive 1500.55, 1996

### I. Introduction

On July 4th, 2002, the U.S. Army launched a free video game called “America’s Army.” According to Lt. Col. Casey Wardynski, project originator and manager of the game, it marked “a new chapter in the U.S. Army’s history of communicating with Americans about the Army’s opportunities, adventures, challenges, and training.” The game featured two simulations: “Soldiers,” a role-playing portion in which players navigate life’s challenges to achieve goals, and a first-person action game, called “Operations.” According to one press release:

America's Army achieves unparalleled military realism through its in-house development and cooperation from 20 Army units. Embedded with expert knowledge, the game accurately depicts today's high-tech Army infantry units – military equipment, training and scenario realism. Character motions are true-to-life with motion-capture of real soldiers, allowing players to participate in a truly immersive soldier experience.<sup>46</sup>

The main argument presented in this chapter is summarized as follows. Because of shifting organizational paradigms, military decision-making has gradually moved down the chain of command. A greater emphasis on the logistical efforts means decision-making and information processing takes place within an increasingly dense communication environment. With individual soldiers operating with greater autonomy, computer-based simulation proved an appropriate training tool. However, with less military funding available after the end of the Cold War, the U.S. Army came to rely on

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<sup>46</sup> Source: <http://www.bluesnews.com/cgi-bin/articles.pl?show=382> Site accessed March 13, 2009.

civilian companies for production and design. These companies, in turn, incorporated their military know-how in commercial entertainment products.

## II. Defining Simulation

Simulation – the *a priori* enactment of battle scenarios – has a long tradition within warfare. The “imitation of combat by another means,” first emerged in the form of Georg von Reisswitz’ *Kriegsspiel* in 1824. (Lenoir, 2003:2) The Prussian Army adopted the system to train its officers, and in 1880 the U.S. Army Corps of Engineers imported the game to the U.S. The *Kriegsspiel* gained in popularity around the world and underwent a slew of revisions. Almost a hundred years later, Fred Jane’s *Naval War Game* (1912) and H.G. Wells’ *Little Wars* (1913) were the first instances at which military logic and simulated inquiry crossed into popular entertainment, and “established [...] playing war games as a form of entertainment.” (3) However,

[b]y the 1970s [...] sophisticated war game designs had been created in the commercial sector, beginning with the founding of the Avalon Hill Company by Charles S. Roberts in 1958. Robert’s *Tactics* (1952), *Tactics II* (1958) and subsequent Avalon Hill titles established conventions of the modern war game: the Combat Rules Table (CRT), the map grid divided into hexagons to regulate movement, the use of printed cardboard counters to represent military units and display their capabilities in numerical form, etc. Just as important, these games shifted the mechanics of game design from abstract strategy or, alternatively, chance to an emphasis on historical realism defined by systems of rules and data, that is, to simulation. (Lenoir 3)

To put it succinctly, the military's use of simulation breaks down into two types. The first, war game simulation or war gaming, is the practice of playing out large-scale combat scenarios in an attempt to predict possible outcomes and foresee problems in the execution of military objectives. Although it is impossible to pinpoint the exact moment when the practice first came about, De Landa argues that modern war games made their

first appearance in the Prussian army of the nineteenth century as “a technology existing at the intersection of cartography and the scientific study of history.” (1990:87)

The second function, called training simulation, is the sensory immersion into a completely synthetic, interactive environment aimed at increasing a soldier's familiarity with combat situations. It allows both rehearsing combat strategies and practicing cooperation between different units. Much more so than war gaming, training simulations rely on the use of computers, and employ a visual interface, which allows a person to communicate and command an avatar within the environment. Consequently, this type of simulation arrived much later. Lenoir pinpoints its origin in 1966 when Ivan Sutherland moved from ARPA (Advance Research Projects Agency, which would later become DARPA) to Harvard to develop his “head-mounted display.” (292)

For our purpose here I will use both concepts interchangeably. Not only does one supplement the other, but training simulation is also in a sense war gaming on a very individual, practical level. In both cases a certain scenario is simulated in order to learn from the experience of engagement and decision-making within that scenario.

### **III. The System Must Be First**

Prior to 1970s, military simulators were stand-alone systems, designed for task-specific training. This made their cost very high relative to their function. According to Lenoir, “high-end simulators cost twice as much as the systems they were intended to simulate.” Costs were

more than \$30-\$35 million for an advanced pilot simulator system in the late 1970s, and \$18 million for a tank simulator, at a time when an advanced individual aircraft was priced at about \$18 million and a tank at considerably less. (308)

Obviously, Lenoir's comparison is not entirely fair. For one, unlike actual airplanes, the use of simulators is not restricted by weather conditions or time of day.

Also, simulators facilitate the practicing of more complicated maneuvers without risk to either student or instructor. Nonetheless, to keep up with ongoing military technological advancements, it is arguably much easier to update software on a terminal than it is to keep up with hardware changes. To solve this problem, the U.S. Military eventually hired Jack Thorpe, whose vision became known as Simulator Networking, or SIMNET.<sup>47</sup>

Thorpe projected that “advances which are seen on the horizon are not simple improvements in teaching techniques or higher fidelity simulators, but rather bold concepts which tightly align training systems with real combat readiness and make them indistinguishable.” The goal of his project was aimed at “the development of a core technology for networking hundreds of affordable simulators world-wide in real-time to practice joint collective war fighting skills and better acquisition practices.” (Cosby)

The creation of networked simulators enabled multiple troops with different roles to train together for any given combat situation. Previously, simulation had almost exclusively been available to officers (war gaming) and specialized personnel (training). (Rosen) Before 1980, its role within the military system remaining peripheral. But SIMNET offered a much wider range of training possibilities. After spending about \$300 million on its development, the SIMNET program transferred to the army in 1990.

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<sup>47</sup> “SIMNET stands for networked simulation. It represents the technology that permits trainees to interact from separate simulators. These simulators may be in the same facility (such as the armored vehicle training range at Fort Leavenworth), or located around the world. Using Protocol Data Units (PDUs), simulators share state change updates with other networked simulators, which have been previously initialized with the same data, so that only changes need to be transmitted among the participating systems. In the Synthetic Theater of War 97 (STOW 97) program, up to 50,000 entities (tanks, planes, etc.) will be interacting dynamically in a realistic synthetic environment. SIMNET also includes semiautomated opposing forces. SIMNET is a breakthrough training technology that transitioned to the Army as Battlefield Distributed Simulation-Developmental. Its technology underlies the Combined Arms Tactical Trainer, which is currently being procured. SIMNET permits interaction of trainees under free play conditions, leading to enhanced realism in training. In addition, results from networked simulations may be incorporated into constructive simulations so that the larger simulation may be based on actual human interaction, rather than computer projections. Advanced distributed simulation also may be used to try operational concepts for developmental hardware systems, informing performance trade-offs during the design phase, when they are least expensive and most appropriate.” In “*DARPA: Technology Transition*”, from the DARPA website, [www.darpa.mil](http://www.darpa.mil)

(Cosby) By 1997, the DoD's budget for the development of modeling and simulation totaled over \$2.5 billion. (Lenoir 316)

It is tempting to think the military adoption of simulation technology came about because micro-processing technology became cheaper. Obviously, this is part of the equation. But, as I will show in the following section, what drove this change was a fundamental shift in the way armies are organized.

#### **IV. Machinic Paradigms**

An army is a big enterprise. In order to effectively carry out orders, the various elements of an armed force have to work coherently. Unfortunately, size quickly becomes a problem. When it comes to movement, what is achievable for 1,000 men is difficult for 10,000 and impossible for 100,000. Thus, warfare requires an organization that effectively integrates the use of communication, information, and technology.

Two scholars, Manuel De Landa (1990) and Paul Virilio (2002), identified three overlapping approaches to military organization. De Landa categorizes the history of military organization according to the demands and affordances of individual soldiers on the battlefield. The first, Clockwork, features “rigid squares of men and weapons, incapable of exercising any individual initiative on the battlefield, resembling a well-oiled clockwork mechanism [...] with the least local initiative, [demanding] a minimum of internal information processing.” An example of this method is Frederick the Great's phalanx, whose system relies heavily on centralized command. Despite offering a relatively coherent execution of orders, one of its most important drawbacks is the inability of commanders to communicate with a squadron once underway. Because of the nature of the Clockwork organization, tactics generally were slow, patient campaigns. Napoleon revolutionized warfare with the introduction of the second organizational

paradigm, Motor. Rather than relying on an enemy army to gradually lose the will to fight, Napoleon sought to eradicate opposition by concentrating his forces on a rival's weak points. Using “versatile, responsive soldiers” allowed more flexibility, tactical advantage of weather, terrain and combat conditions. At the same time, of course, this also increased the flow of strategic data, predominantly top-down, forcing “the introduction of written orders at the operational level.” To be effective, Napoleon's organization required a robust system of communication and coordination among his army's various components. Napoleon met this demand by institutionalizing general staffs to handle the inflow of information, and stimulated the development of scouting and reconnaissance. One well-known technology that emerged from this mode of operation was Napoleon's optical telegraph system, which he used to quickly communicate messages over large distances. Finally, a third organizational method further elaborated on facilitating greater coherence among units, allowing them to “amplify each other's strengths and to compensate for each other's weaknesses.” This approach is called the Distributed Network. Although similar to Motor, the Distributed Network uses more advanced technology in order to allow military units (tanks, bombers, etc.) to work together. De Landa offers the German Blitzkrieg method as an example of this paradigm. Previously, separate units had not been able to directly communicate with each other, relying on information from higher up. With the use of wireless communication (e.g. two-way radio), the horizontal flow of information increased and executive orders could be given at a lower level. In addition, in response to the increase in accuracy and range of firearms and the development of the machine gun, skirmishing became the main form of attack. (72) Rather than advancing in tight formations, assaults were forced into open and independent formations of small groups. The German Storm Trooper is an example of a unit developed under the distributed network: an “efficient

and obedient soldier who was also capable of leading other men if necessary.” (73) The first “weapons network,” as De Landa calls it, originates in the British army, as “armored tanks [started to work] in coordination with close air support and infantry.”

It is tempting to assume that the organization of warfare changed because of an evolution in *weapons* technology. Having a bigger or better weapon creates an overwhelming advantage, as the colonizing British, for example, found in their battles against the African Zulu's. Muskets trump spears. Similarly, to be lethal with a bow and arrow takes years of practice, which meant that most warfare revolved around hand-to-hand combat. The invention of the crossbow, requiring much less training to be effective, invigorated the use of ballistics. (McNeill, 1982:36) However, as the production of weaponry becomes standardized and more readily available, effectively equipping either side with a equivalent arsenal, such an advantage disappears. It is here that the onus shifts toward *information* technology.

## **V. Virilio's Epochs**

French media philosopher Paul Virilio identifies three different “major epochs of real war,” namely: tactics, strategy and logistics. (2002) “[L]imited violence and confrontations” characterize the first period. Typically, campaigns were sieges rather than all out battles, and only over long periods of time did armies gain territory. In this slow-moving approach, the most important weapons were, according to Virilio, “weapons of obstruction,” such as “ditches, ramparts, bastions, armour, and fortresses.” Following, in the strategic epoch diplomacy and politics were vital extensions of military muscle. War either served to obliterate an enemy on the battlefield (WWI) or as a threat that facilitates diplomatic efforts (Cold War). Typical weapons include “lances, bows, cannons, machine-guns, missiles.” Virilio calls these “weapons of destruction.” And third, “science

and industry” typify the logistical epoch, because they play a “determining role in the destructive power of opposing forces.” Rather than using actual force or ballistic weapons, information and communication are a pivotal element of warfare. Virilio names “lookout towers and signals, information and transport carriers, optical telegraph, wireless telephone, radar and satellites,” as examples of what he calls “weapons of communication.” (13)

Virilio’s typification shows an evolutionary pattern in war that parallels the advances in communication technology. His three epochs argue that the energies of the military are spent on collecting intelligence and data, and on logistical support for large-scale operations in foreign territory. It is no longer effective for them to dedicate the bulk of their efforts to destruction. The shared element that emerges from both Virilio’s epochs and De Landa’s machinic paradigms is logistics, as centrally organized warfare shifts to a decentralized logistical effort within a distributed network. With the transformation of warfare, information and communication technology began to develop into essential aspects both on and off the battlefield. Subsequently, procurement, maintenance, and transportation of military material, facilities, and personnel have become a more complicated matter.

**Table 7: Shifts in Military Organization According to De Landa & Virilio**

<b>De Landa</b>	<b>Commander</b>	<b>Virilio</b>	<b>Weapons of</b>
Clockwork	Alexander the Great (phalanx)	Tactics	Obstruction
Motor	Napoleon (Grande Armee)	Strategy	Destruction
Distributed Network	Hitler (Storm Trooper)	Logistics	Communication

To briefly illustrate how the emphasis of warfare has moved from strategic power to logistical abilities we may look at the changing role of aircraft carriers. Initially used primarily as an offensive force, following the destructive legacy of the ironclads, aircraft

carriers had the logistical potential for a bigger strategic advantage. The “use of the carrier as a floating air base from which tactical air power, otherwise too “short-legged,” could carry the war to the enemy’s territory, according to Deitchman. But since

the advent of the SSBN [nuclear-powered submarine for launching strategic ballistic missiles] in the early 1960s, the general purpose Navy has not had the strategic mission of making a devastating attack on the enemy [...] homeland. Rather, it is intended to destroy the enemy means (land-based air, sea-based air, surface and subsurface fleets) of interfering with the main business of U.S. sea power: protecting the sea lanes for our and our allies’ use, transferring materials of war, and landing ground forces where they might be needed. (1983)

Consequently, aircraft carriers have become logistical nodes rather than offensive units.

A similar shift has occurred among the more modest units of an army, as the role of private soldiers seems to have less to do with shooting enemies and more with operating effectively within the overall infrastructure.

With the onus of military organization firmly on its logistical strength, the U.S. Army has aggressively sought ways to adequately train its personnel. The answer proved to be computer-based simulation.

## **VI. Military Thinking and Decision-Making Exercises**

In 1996 the Department of Defense (DoD) presented a paper to the committee on Modeling and Simulation, which described in detail the three distinct military functions for simulation.<sup>48</sup> The first major function is *training*. According to the DoD,

warriors of every rank will use modeling and simulation (M&S) to challenge their skills at the tactical, operational, or strategic level through the use of realistic synthetic environments for a full range of missions, including peace keeping and the provision of humanitarian aid.

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<sup>48</sup> The committee on Modeling & Simulation was formed by the Computer Science and Telecommunication Board, the Commission on Physical Sciences, Mathematics, and Applications, and the National Research Council.

This description forms the most general statement of the military's purpose for simulation and echoes the 'need' expressed by DARPA for one of its most well known simulators, the Close Combat Tactical Trainer (CCTT). The CCTT offers "the capability to train the total combined arms force on a simulated, fully interactive, real time battlefield."

(Noonan 2002) Training within a synthetic environment offers many benefits. Most obviously soldiers may engage "without risking injury, environmental damage, or costly equipment damage." Then, simulation enables the coordination of training exercises on a scale that is not possible in "any arena short of full-scale combat operations." And, third, simulation allows units to operate together "without costly, and time-consuming travel to live training grounds."

The second major function of simulation is *analysis*. According to the committee, simulation offers a "set of tools to systematically analyze alternative force structures." Here simulation is more akin to war gaming. Playing out varying scenarios under varying environmental circumstances allows formulating more streamlined directives, and how to meet the demands of a battlefield more effectively. According to the Computer Science And Telecommunications Boards, a think-tank offering "independent advice to the federal government on technical and public policy issues relating to computing and communications," changes in the geopolitical environment require armies to plan for actions not only in traditional regions of conflict, but anywhere in the world. (1997) Computer engineers can model a wide variety of specific environments and specific situations in which to train troops. These models can be used to work out logistical plans, as well as combat training: analysis through simulated models allows designing effective strategies to support troops in many potential combat zones.

The third major function of simulation is optimizing *acquisition*. "Operating in the same virtual environment," says the DoD, "virtual prototypes will enable acquisition

executives to determine the right mix of system capability and affordability prior to entering production.” Using life-like representations, the prototype weapons can be tested and assessed in context. This is both cost-effective and safe, and resonates strongly with pivotal considerations regarding acquisition reform: “First, and clearly of highest priority, is enhancing the quality of acquisition personnel.” Generally, more advanced weapons also tend to be more expensive, and testing prototypes can be an expensive activity. To this end, the Institute for Defense Analysis reported a savings of “over \$320 million” by using case studies provided by the Virtual Proving Ground, U.S. Army Test and Evaluation Command.” (1996) In addition, it presents an overview of two similar events that were conducted for Apache Longbow Force Development Test and Experimentation, one using simulation and the other using physical equipment.

**Table 8: Example of Cost Savings Through Use of Simulation**

Resources	Phase I Manned Simulation	Phase II Field Test
Cost (O&M Army)	\$ .712M	\$4.049M
Equipment	1 Simulator	4 AH-64D 2 UH-60 14 M1 Tanks 10 M3 Fighting Vehicles 2 2S6 20 + Air Defense Units 47 + Vehicles
Personnel (Government)	27	663
Mission Turn-Around Time	2 Hours	6 Hours
Data Reduction Time	4 Hours	80 Hours
Number of Trials	32	16
Test Period	4 Weeks	6 Weeks
Safety	No Risk	Moderate Risk

The report concludes, “the simulation-supported event executed twice as many trails, with fewer personnel, in less time, at lower risk to personnel, for \$700,000 versus the \$4 million spent in using physical equipment.”

## VII. Military Entertainment

After the end of the Cold War, the U.S. military faced a reduced budget. In response, the army adopted simulation to reduce its overall cost structure, which would eventually spawn an intimate relationship with the American entertainment industry. (Herz, 1997; Lenoir, 2003) According to Lenoir and Lowood, two factors in particular birthed the emergence of what they dubbed the military-entertainment complex. (2003) First, budget cuts forced the U.S. Army to improve its overall “fiscal” efficiency and began incorporating business principles by moving away from “service-unique development” and instead focus on a modular approach. This resulted in “making military procurement practices interface seamlessly with commercial industrial manufacturing processes.” (18)

Second, the emergence of distributed interactive simulations (e.g. SIMNET) came to rely increasingly on integrating realism, both in the form of synthetic characters and historically accurate data, and “compelling story development.” (1) To obtain this vital element, the military consequently turned to the cutting edge of commercial game design and entertainment. In return for its technological expertise and financial savings, the military shared some of its own secrets. Or, more specifically, in 1996 it released a mod for *Doom II*. Originally launched by id Software in 1993, *Doom* is a first-person shooter that features 3D graphics, networked multiplayer game play and supports custom expansions. The game was first released as shareware (copyright commercial software that is distributed for free but limited in its functionality), and downloaded by ten million people within two years.<sup>49</sup>

Its popularity grew to astonishing heights: in 1995 *Doom* was installed on more computers worldwide than Microsoft’s recently launched Windows 95 operating system.

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<sup>49</sup> Source: Wikipedia. Available at: [http://en.wikipedia.org/wiki/Doom\\_\(video\\_game\)](http://en.wikipedia.org/wiki/Doom_(video_game)) Site accessed March 13, 2009.

In 1996, the U.S. Marines build a modification of *Doom II*. General Charles C. Krulak issued a directive (1500.55) to use war games for improving “Military Thinking and Decision Making Exercises.”

The use of technological innovations, such as personal computer (PC)-based wargames, provide great potential for Marines to develop decision making skills, particularly when live training time and opportunities are limited. Policy contained herein authorizes Marines to use Government computers for approved PC-based wargames. (1997:1)

The Marine Corps Modeling and Simulation Management Office got its hands on a copy of the 1993 version of *Doom* and developed a simulation, “which focused on mutual fireteam support, protection of the automatic rifleman, proper sequencing of an attack, ammunition discipline and succession of command.” Later, the version developed by the U.S. Marines was adapted for commercial use and released for *Doom II*.

It is not the case that all video games are inspired by the military, but the popularity of *Doom* and its successors certainly warrants a further investigation into the appeal of this form of entertainment. More specifically, it raises the question what the daily experience of a soldier has in common with that of a civilian. The answer to that lies in the density of the communicative environment of both. Faced with an increased degree of autonomy and the need to work more cohesively with other units, an individual soldier essentially trains to become better at organizing the flow of information. Contemporary doctrine, for example, revolves around asking the questions: “Where am I? Where are my buddies? Where is the enemy?” (*Every Soldier is A Sensor*, 2008) Navigating the information environment, thus, has become an integral part of military practice. Like the day-to-day environment of military personnel, popular culture is saturated with information. A “shared belief in the need for information filters – data making sense of other data” – follows as a derivative of the observation that people require strategies to digest the “torrential” and “overwhelming” amount of information

they face on a daily basis. (Johnson 1997; Gitlin 2001) In “*Everything Bad is Good for You*” Johnson argues that playing video games, for instance, “is ultimately all about filling in [the] information gap.” (2005:30) Through trial and error, in fact,

[w]hen gamers interact with these environments, they are learning the basic procedure of the scientific method. (45)

Leading him to conclude that in contemporary game play it is not “*what* you’re thinking,” but rather “the *way* you’re thinking that matters.” (40) Accordingly, the 21st century entertainment and information technology impose greater demands on the individual, and participation in a culture characterized by the presence of advanced media technology requires a logistical faculty.

To better understand how simulation and video games help us process information, we must look at its most obvious dimension: its visuals. Embedded within the visual dimension of video games exists a syntactic set of principles that guide this particular form of communicative and cultural expression. Video games, then, are not merely visually augmented games, but present an entirely new communicative system designed after the epistemological demands of contemporary society. This is the topic of the next chapter: the Video Game Vocabulary.

## CHAPTER 5: VIDEO GAME VOCABULARY

*The game of Chess is not merely an idle amusement. Several very valuable qualities of the mind, useful in the course of human life, are to be acquired or strengthened by it, so as to become habits, ready on all occasions. For life is a kind of chess, in which there is a vast variety of good and ill events, that are, in some degree, the effects of prudence or the want of it.*

-- Benjamin Franklin, 1768

### I. Introduction

The quote above comes from an essay by Benjamin Franklin, titled “The Morals of Chess.” (1768) He continues to explain that by playing chess we may learn “foresight,” “circumspection,” “caution,” and “the habit of *not being discouraged* by present bad appearances in the state of our affairs, the habit of *hoping for a favorable change*, and that of *persevering in the search of resources*.” (italics in original) The previous chapter argued that video games were born out of a need to train soldiers to meet the logistical demands of an information-dense environment. The current chapter shows that video games, like chess, are also not an idle amusement. The visual logic, here called the video game vocabulary, builds on an epistemology born out of the contemporary media environment. The digital underpinnings of video games afford a degree of elasticity, which can be employed to organize visual cues and achieve meaning or clarity within a torrential media experience. Video games, in other words, did not emerge *alongside* other forms of media, but, rather, *in response* to them.

### II. Video Game Ecology

The increase in complexity of everyday life is somewhat of an academic cliché. Often, a sharp declinist narrative dominates discussions on new technologies and the way in which they unravel precious traditions and human faculties. As far back as Plato, people have made the argument that new technologies bring about the type of change that

negatively affects human development and society. (Havelock, 1963:5) Many of these critical texts that inform contemporary communication studies approach the increasingly pervasive role of technology in everyday life as a mystifying development.

The previous chapter already mentioned Walter Lippmann, who took on “the basic problem of democracy.” (xi) He argued, that “[p]eople [...] were conditioned not only by what they were persuaded to believe, but also by the unconscious workings of their own minds.” (xii) In his view, people were unable to understand the world in its entire complexity, and therefore required a battery of experts who, after careful consideration and analysis, would pre-select a handful of readings of reality. This “economy of efforts” was critical in maintaining a functional relationship with the world at large. When reading a newspaper, for instance, meaning “has to be telescoped in such a way as to permit the reader to judge how much weight to give to the news.” (42)

Similarly, Jacques Ellul’s *The Technological Society* (1964) describes the conditions of everyday life to “call to the sleeper to awake.” Although he denies that he is a pessimist (xvii), his study explains how, one by one, every area of the human condition is colonized by the logic of technology. Subsequently, people’s ability to comprehend their surrounding, let alone act on it, is threatened.

Material techniques of communication, psychological techniques, commercial techniques, techniques of authoritarian government, all combine to produce the important phenomenon of propaganda, which represents a new technique independent of all the rest and necessarily produced as a consequence of the preceding phenomena. (91)

Postman follows Ellul’s somber tone, although he dresses his disdain for technology up in some hilarious observations. When talking about the way in which contemporary cultural practice and communication are overrun by “information-trivia,” he quotes a sportscaster’s educational sound bite:

In only 17 percent of the times that he has pitched at Shea Stadium has Dwight Gooden struck out the third and fourth hitters less than three times when they came to bat with more than one runner on base. (137)

Faced with such nonsense, one is hard-pressed to deny the idiocy of communication in the “Technopoly” (1993). Postman roots the complexity of society in the “bureaucracy effect.”

As techniques for managing information became more necessary, extensive, and complex, the number of people and structures required to manage those techniques *grew*, and so did the amount of information *generated* by bureaucratic techniques. This created the need for bureaucracies to manage and coordinate bureaucracies, then for additional structures and techniques to manage the bureaucracies coordinate bureaucracies, and so on-until bureaucracy became [...] the disease for which it purported to be the cure. (86) (*italics in original*)

Humor aside, Postman proves himself a loyal student of Innis and McLuhan. His main concern in understanding the growing complexity of everyday life at the hands of increasingly pervasive technologies is that “new technologies alter the structure of our interests: the things we think *about*. They alter the character of our symbols: the things with think *with*. And they alter the nature of community: the arena in which thoughts develop.” (20)

Marcuse’s *One-Dimensional Man*, here serving as a straw man for the Frankfurter Schule’s opinion on media and technology, argues that machine logic as an underpinning of daily life brings about a loss of interior space. This faculty, says Marcuse, is critical in developing critical thought, and through its colonization, society loses the ability to be skeptical of its leadership and practices. (1968, 31) In typical German prolonged staccato, he writes:

The main trends are familiar: concentration of the national economy on the needs of the big corporations, with the government as a stimulating, supporting, and sometimes even controlling force; hitching of this economy to a world-wide system of military alliances, monetary arrangements, technical assistance and development schemes; gradual assimilation of blue-collar and white-collar population, of leadership types in business and labor, of leisure activities and aspirations in different

social classes; fostering of a pre-established harmony between scholarship and the national purpose; invasion of the private household by the togetherness of public opinion; opening of the bedroom to the media of mass communication. (1964: 19)

One would be wise to not invoke the wrath of a school of thought born out of World War II trauma. To even pretend to understand the severity of that time is nonsense. But, we may ask ourselves, if we buy into this grim scenario, do we not also give up on one of the most successful characteristics of the human race: the ability to adapt to *any* environment?

These are but a few of the common texts that underpin the academic dialogue on the nature of communication. And while they share a common appreciation for the dialectic nature of the means of communication, there often seems little hope for the struggling masses that find themselves disoriented in a chaotic world. According to Gitlin, the complexity of the “media torrent” lies in its scattered, incoherent nature. (2000) On the one hand, the development and incredible success of mobile consumer electronics has facilitated the presence of mediated imagery in all areas of life. It takes only a moment to recognize that screens have popped up everywhere: on our laps (notebooks), on our cell phones (e.g. iPhone, BlackBerry) and in the back of New York City cabs and SUVs. An ongoing miniaturization of devices quite literally allows them to enter into every crevice of daily life. Moreover, the rapid penetration of broadband services and ongoing improvements of necessary software facilitate more, better media, everywhere. For example, the development of ‘codecs,’ which reduce video file sizes without quality loss, is currently shifting from MPEG-2 to the MPEG-4/AVC standard. As the number suggests, the latter doubles the capacity of streaming media, and serves a host of digital technologies (e.g. optical discs, DVDs, TV sets). As handset manufacturers struggle with a saturated market, they appeal to consumers with cell phones that can do more than just dial a number: the iPhone, featuring the MPEG-4/AVC, sold 13 million

units in its first 18 months. Although this is only one humble data point, it serves to illustrate that the average stream of information per capita, if there is such a unit, is constantly increasing. Consequently, scholars like Neuman et al are trying to quantify how the flow of information into the home has increased (Neuman, Park & Panek, forthcoming).

The subsequent environment presents a different distribution model of communication and features one-on-one interaction between the device and its user, and separates consumers of media in a material way. That is to say, contemporary media are not to be thought of as some enormous well-organized pipeline that branches off into every living room, but instead as a cacophonous incoherent milieu. Increasingly, our trusty PDAs, cell phones, laptops, iPods help us organize, categorize, schedule and navigate our lives amidst these conditions. But herein lies the irony: the same technologies that afford us a degree of coherence also contributes to the overall noise that obfuscates.

On the other hand, the ‘content’ of the media torrent, its ones-and-zeros, constantly surrounds us only to briefly materialize and become coherent, and then scatter again. In terms of ‘meaningfulness’ or ‘symbolic value’ there is no fixity. The building blocks of (digital) content echo this characteristic:

...a new media object consists of independent parts, each of which consists of smaller independent parts, and so on, down to the level of the smallest “atoms” – pixels, 3-D, points, or text characters. (Manovich 31)

Cutting and pasting is central to contemporary media. YouTube, the popular online video hosting service owned by Google, is a quintessential example for digital content being cut, remixed, pasted and subsequently being given new context and meaning. Whether we choose to label this “postmodern” (Jameson 6), “recombinant” (Gitlin 1983:63-86), “configurable” (Sinnreich 2007) or “bricolage” (Hebdige 103-4) is beside the point. That

is to say, the ‘point’ of contemporary media lies in its processes (Rossiter 105) and not in its products.

One example of this oscillation is the tension that exists between two *First Person Shooter* (FPS) games. The chapter titled *Military Roots* began with the press release of *America’s Army*, which the U.S. Army developed and published for free as part of its marketing efforts. Predictably, the symbolism used in this game speaks to a Western/American audience: the use of English, the narrative that explains the game, and so on. In contrast, the game *Special Force*, a FPS based on the armed Islamic movement in South Lebanon, uses the exact same genre characteristics and software architecture. But instead, its symbolical values are perpendicular to that of a game with a ‘Western’ agenda. The difference between the two games is merely aesthetic. But it is the tension that emerges from this symbolic struggle that generates meaning. “It takes a game like *Special Force*, with all of Hizbullah’s terror in the background, to see the stark, gruesome reality of *America’s Army* in the foreground.” (Galloway 2006)

The multiplicity of the media environment has thus lost its ‘objective’ value. That is to say, we can no longer attach a singular value or truth to an object, because there is no object to begin with: there are only ways of looking. In much the same way, Panofsky documented the fundamental differences between the “curved” perspective of antiquity and the “linear” perspective of modernity (33) The former took into consideration the curvature of the eyeball in its compositions as the eye projects “onto the inner surface of a sphere.” In contrast the latter assumed a “*plana tabella*,” a flat plane.<sup>50</sup> (Panofsky 34) This difference between the “subjective” perspective of antiquity and the “objective” perspective of modernity is what Panofsky considers fundamental to understanding the different epistemologies of those eras. The idea that what we see is somehow external to

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<sup>50</sup> “...for while perspective projects straight lines as straight lines, our eye perceives them (from the center of projection) as convex curves.” (Panofsky 32)

us, that the meaning of an object exists within the object and not in our interpretation of that object, is precisely where this difference in perspective plays out.

Video games, in this perspectival context, represent a media technology that fundamentally depends on the subjective interpreter, the player, for its meaning. And in order for the world around us to make sense, we actively attribute meaning to it – “navigational strategies.” (Gitlin 2001:119) Consider how literal this plays out in a newly emerged game genre called ‘escape the room.’ The premise for the games is that the player finds herself in a room or series of rooms from which she must escape because of some impending doom. Essentially the object is to, through trial and error, uncover the required sequence of actions by clicking on the furniture and items depicted in the room. Clues are not obvious. For example, a key would normally open a locked box. But in this case the correct positioning of a picture and the burning of incense might open it.<sup>51</sup> This type of game is the video game equivalent of a ‘puzzle box’: in order to obtain the piece inside, a sequence of movements such as sliding certain panels is required to open it. Precisely because a game space and everything in it is non-obvious, a player is forced to uncover information on the game environment. Johnson describes this as the effort to “decipher the rules.” (2005) By internalizing the incarnate logic of a game the player formulates a personal strategy and plays with the possibilities within a game reality. Of course, these games are built on an underlying logic, which dictates that once we uncover the necessary sequence of action, they provide offer closure, and therefore coherence. Their relevance here is two-fold: firstly, this type of game relies on visual technology and is thereby shaped by it, and secondly it invokes a decision-making faculty. Our experience of game space thus becomes subjective, because we bring ourselves into it—the experience of the game is a visualization of our ability to express ourselves in it.

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<sup>51</sup> This example is taken from “*Viridian Room*.” Copyright by FASCO-CS. Available at: [http://www.fasco-csc.com/works/viridian/index\\_e.php](http://www.fasco-csc.com/works/viridian/index_e.php) Site accessed April 21, 2009.

**Image 9: Escape the Room**

This subsequent rejuvenation of such a subjective perspective, a polysemic interpretation, is crucial to navigating successfully through the contemporary media environment. It fundamentally challenges the circumstance of the Aristotelian system, which has as its principal aim “to provoke catharsis.” (Boal 25) Traditional media, such as television and cinema, place a spectator within a narrative or setting and allow for alternate ‘readings’ of one and the same text. (Mayne 170) But rather than robbing an individual of the opportunity to express his or her own experience of reality, and instead of dictating a particular interpretation, game space affords a negotiation on a deeper level. The clash between these two different ways of communicating, the two different perspectives, is fundamental to understanding the current historical moment in the dialectic between society and media technology. This is more obvious in two points of tension that are unique to video games.

First, the modifiable nature of new media and video games has raised a lot of interest regarding the representation and experience of identity. The tired adage that “on the Internet no one knows you’re a dog,” also rings true for game space.<sup>52</sup>

Characteristically, role-playing games revolve around the careful and gradual

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<sup>52</sup> As quoted from the cartoon by Peter Steiner, *The New Yorker*, July 5, 1993. Vol. 69 (LXIX) no.20), p.g. 61. Please don’t tell anyone I used this quote, because it’s older than the road to Rome.

development and nurturing of an alter ego that exists in some fictional reality. In the vast online worlds the physical representation plays a fundamental part in this experience. And, not surprisingly, games like *City of Heroes* (NCsoft, 2004), in which a player creates an avatar based on a range of different attributes, aim to provide such an extensive amount of possibilities so that no two characters will be the same (at least according to its website). Following Ricoeur, de Mul argues that because of this plurality game space affords people with a “ludic identity.” Comparing games to narratives, de Mul argues,

computer games are expressions that, among other things, play a function in the formation of our identity. They [...] give expression to important aspects of human life that structure our lived experiences and by doing that enable the reflective identification with this structure. (260)

He concludes, “computer games are not “just games” but play a constitutive role in our cognitive development and in the construction of our identity.” (In Raessens & Perron 260-262) Echoing Turkle’s landmark study in “Life on the Screen: Identity in the Age of the Internet,” the relationship between who we think we are and how we present ourselves ‘on the screen’ are intimately related. Turkle’s study quotes one respondent saying: “RL [real life] is just one more window [...] and it’s not usually my best one.” (1995, p.13) And the prominence of our selves in a digital experience, to put it broadly, is obvious when we look at the spending habits of online gamers. In the game *Puzzle Pirates*, for instance, “players spend [most] money on Avatars, Furniture and Toys.” In other words, selling gamers non-essential game elements (items not necessary for game play) have become a business.<sup>53</sup> (For a more detailed discussion and analysis of this market, please refer to Vili Lehdonvirta’s doctoral thesis “Virtual Consumption.”)

However, the various building blocks with which we construct our identities, ludic or not, are not necessarily a free resource. In November 2004, Marvel Enterprises

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<sup>53</sup> Taken from screenshot, presented by *Puzzle Pirates* management at the Virtual Goods Summit 2008 in San Francisco. Slide screenshot available here: <http://www.flickr.com/photos/mikegee/2935865736/in/set-72157607969769557/> Site accessed January 15, 2010.

filed a complaint against NCSoft (South-Korea) and Cryptic Studios (San Jose), alleging that their role-playing game, *City of Heroes*, violated several trademark characters. The game allows players to create virtual superhero characters out of a myriad of possible combinations. Marvel, a company that owns over 5,000 “proprietary characters” such as Spiderman and the Hulk, claimed that the game allowed creating characters that are too similar to some of its existing trademark heroes.<sup>54</sup> And, to counter this threat, Marvel filed a variety of complaints, such as “direct,” “contributory,” and “vicarious” copyright and trademark infringement.<sup>55</sup>

The collapsing boundaries between the private realm of the individual and corporate interests clearly jeopardizes one’s freedom to develop, formulate, and experiment with identity. An extensive transposition of copyright from traditional realms such as print and television onto new ones seems not only historically asynchronous, but also impinges on the development of game space in general. In the words of one critic “the open-ended universe of MMO operators would be reduced to a limited set of tightly controlled theme parks.”<sup>56</sup>

A second point of tension is the individually negotiated coherence that exists in online game worlds. Networked games in which many players interact simultaneously maintain their coherence, despite the fact that every single player may be interacting with a variety of interfaces. The various elements of the game environment may be represented differently if a single player so desires. A game like *Counter-Strike* (Valve, 2000), which originates in its entirety as a modification of an existing game, is as much a

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<sup>54</sup> A copy of the original filing is available at:

[http://www.eff.org/IP/Marvel\\_v\\_NCSoft/20041115\\_Marvel\\_NCSoft.pdf](http://www.eff.org/IP/Marvel_v_NCSoft/20041115_Marvel_NCSoft.pdf) Site accessed April 21, 2009.

<sup>55</sup> Copyright law, on the one hand, “was intended to protect literary, artistic, musical, and computer-generated works for a limited period of time. [...] Originality is a fundamental principle of copyright.” Trademark law, on the other hand, allows a company to “protect and enjoy its “goodwill” in the marketplace. [...] It allows and provides an incentive for a company to offer a consistent product or some predictable quality.” (Vaidhyanathan, 2001)

<sup>56</sup> Fred von Lohman, *Et Tu, Marvel?*, December 3, 2004. Available at:

<http://www.law.com/jsp/article.jsp?id=1101738490342> Site accessed March 13, 2009.

venue for those solely interested in playing a game as those looking to create a customized kinetic spectacle. Modification of the aesthetic make-up of the game reality is as central to the experience as the game itself. Moreover, the customizable interface of online role-playing games transcends its functional boundaries and becomes a metaphor. On one level, the placement of the various game elements all over the screen facilitates the organization that is most convenient for the player. But on another level, it literally visualizes one's control over the game environment. Taking place behind the customized screen of another player can be a mind-boggling experience, as different people may organize the same space in radically different ways. The organization of the visual elements (e.g. "What goes where?") is a political constellation in itself, as much as it is a negotiation between various interpretations of reality.

The moment that several players log on to the same game, they might be there for different reasons, and might all be interfacing with different aesthetic realities, but still maintain a certain coherence. Moreover, because a highly modified screen make-up is the visual equivalent of a long process of grooming and fine-tuning by the player, it takes on other social functions. Within the social context of games, extensive modification may represent one's commitment and degree of expertise, and thus become a manifestation of one's social status and identity. Exercising the ability to modify, customize, and ultimately re-create places us within a social systemic totality. Precisely because everything in game space is negotiable and uncertain, there exists only one point of view from which order exists in the complexity of the game environment: our own. The proliferation of the monadic perspective is then a natural outcome of contemporary video games. *Ludeo ergo sum.*

Image 10: Two Examples of Customized User Interfaces in *World of Warcraft*



### III. Medialect

As a contraction of the words ‘media’ and ‘dialect,’ this term refers to *the dialectical relation between a customary media technology and the social conventions*

*that constitute a communicative exchange.* Within the context of the 21st century media environment, describing communication in purely objective terms, or “products,” is increasingly unattainable, and one is irrevocably forced to acknowledge the fluidity, or non-determinacy, of communication. (Rossiter 106) Any externality that facilitates communication, after all, is open to interpretation and therefore in constant negotiation with both social convention and technological development. The many different interpretations of daily life – how we experience and express it – reverberate within any language, whether oral, written, or otherwise. Thus, the dynamic is similar to a social group or individual formulating a private dialect (sociolect, idiolect) so as to give expression to a collective or individual experience. All the while these local dialects may be broadly based on an overarching (national) syntax. The cross-pollination between expression, technology, social convention, and experience thus often leads to forms of communication and cultural expression that deviate greatly from their originally intended purposes. The term medialect then refers not only to the dynamic exchange between technology and communicative expression, but to the very principle that language is irrevocably fluid, irrespective of the attempts to control, standardize, legitimize it. Moreover, the popularization of a new syntax builds upon the existing ones and in the process eclipses them.

A medialect equally deploys both a socially constructed grammar and pervasive use of mediating technology. In the same way that technology imposes a particular logic upon society, so too does society configure technology to suit its various purposes. The term medialect, as a theoretical construct, corresponds to “technological interactionism” in which “social processes are not only influenced by technological developments (as in technological determinism), nor are they solely controlled by human negotiations (social constructivism) but by both.” (Raessens 379) This bilateral process constitutes the

external conditions under which communication takes place, and is increasingly present in the internal logic of communicative exchange itself. “The aesthetic dimension of new media resides in the processes – the ways of doing, the recombination of relations, the figural dismantling of action – that constitute the abstraction of the social.” (Rossiter 105) Therefore, if one seeks to exchange meaningfully within the externality of a particular medialect, such as video games, one has to internalize its grammatical rule.

Because a video game “is created on computers, distributed via computers, and stored and archived on computers, the logic of a computer can be expected to significantly influence [its] cultural logic.” (Manovich, 2001:46) Its building blocks, “be they images, sounds, shapes, or behaviors, are represented as collections of discrete samples (pixels, polygons, voxels, characters, scripts).” (30) This “modularity” makes it so that, different from its analogue counterparts, the digitized visual experience, for example, is extremely malleable.

Succinctly speaking, a video game player interacts with a computer using a graphical interface. That is to say, underlying data is made meaningful by a graphical filter that ‘translates’ computer code into a language that humans can understand. Through an array of conventions, data are organized in a way that makes it accessible to humans, in the same way that a film constructs a narrative through the use of scenes, montages, zoom, focus, etc. Similarly, books consist of words, which make up sentences, which make up paragraphs, chapters, and so on, giving print literature its distinct linear structure. Along these same lines, video games too have their own vocabulary.

A first defining element is separation or, put more precisely, our physical separation from the screen coincides with the mental awareness that we are indeed free from consequence within the game reality. The ability to see where an avatar cannot has been central to game play since Pac Man. Similarly, the use of a ‘Heads Up Display’ in a

first person shooter game informs a player how much ammo and health are left which relays back into the decision-making process of game play. However, the expression of health in percentages, which in some cases exceed the 'natural' limit of 100%, effectively drives an epistemological wedge between the player and the avatar. Thus we are free. Identified by Murray as "the ongoing denial of death," (1997:175) the impermanence of such game play allows us to begin again as often as we like. We are safe from the repercussions of our actions and we know it. The disconnect from suffering the same consequences as our avatar, moreover, resonates strongly with Aristotelian tragedy, where similarly "the spectator has the great advantage of having erred only vicariously: he does not really pay for it." (Boal, 1985:14) In other words, the visual separation and frivolous nature of video game play are epistemologically consistent.

A second element is that of spectacle. The use of visuals in contemporary games far exceeds the basic requirements to play the game. The game mechanics of a long-running series like *Final Fantasy* have changed very little throughout its history. In terms of graphics, however, it has undergone a massive development, providing more flash with every incarnation. Many other well-known series, such as the *Madden Football*-series and the *Super Mario Bros.*-series, too have undergone a similar transition in which the rules of the game remained more or less the same while the visual dimension has taken on a larger part of the experience. The mediated experience, in other words, presents us with a phantasmagoria that far exceeds any informational value. In this sense, video games are not just humble "state machines," (Juul, 2005:25) but present us with an overwhelming kinetic spectacle that transcends into a style, a way of speaking.

Thirdly, the representation of speed is a fundamental element of the video game vocabulary. In the same way that spectacle overshadows the simple transmission of information, velocity of imagery contributes a unique aspect. Through both acceleration

and deceleration, game play imagery is rendered increasingly fluid. Games like *Max Payne*, *Prince of Persia: Sands of Time*, and *Braid* center on the player's control over the flow of imagery as a strategic element. Controlling the movement of opponents and undoing unproductive occurrences by affecting temporality<sup>57</sup> are two game mechanical elements that contribute to a novel visual experience. Whereas pausing, fast forwarding, or rewinding a film shatters its illusion, video games incorporate these abilities as natural elements by making the control over such features essential to the completion of the storyline. In this way, the machine-enhanced way of seeing of video games cultivates visual elasticity.

To briefly summarize then, the epistemological consistency between visual separation and the frivolity of play, the communicative style of spectacle, and the elastic velocity of visuals all contribute to a unique sensory experience. While none of these elements are necessarily new or exclusive to video games, it is their coalescence that amounts to a novel cultural practice. Because there is a great variance in possible game experiences, as “you never step into the same video game twice” (Frasca in Perron, 2003:227), coherence is not a given. Whereas the meaning of a movie exists and can be ‘read’ under the provision that one has contextual access, the absence of a singular narrative in game play places a demand on the individual to create coherence. No two games of chess or soccer are the same because of the totality of players’ choices. Video games extend this idea not just mechanically, but visually. Without rigid, predetermined railroad tracks to guide us through the narrative landscape, it is through action that we achieve coherence and create meaning in game space. A video game player is at once interacting with a game mechanical system and confronted with a degree of visual autonomy and control.

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<sup>57</sup> Within the game, rather than through the external process of saving and loading particular game states.

Video games afford an elasticity that is similar to the “abdication of mental law” (Wells 6) presented by cartoons. According to Roger Cardinal, “the whole idea of the animated film is to suppress the categories of normal perception, and ultimately, to annihilate the very conditions of rationality.” (In Wells 2002:5) Indeed, animation allows

to depict the very things that could not be enacted in the material world, but were intrinsic to it – dream-states, projected illusions, primal memories of extinct and unfamiliar creatures, fantasies... (31)

However, unlike animated film, which Wells argues to have emerged in response to the rigidity of modernist television production and cinema, video games respond not just to a singular medium, but to a larger media technological condition. Where animation is a narrative form, video games are much less geared toward producing narratives, but are capable of making complex abstractions concrete. In playing *Grand Theft Auto* we can see where we are, and where enemies are, by looking at the head’s up display (see circle at the bottom left in image below). This basic game mechanical tool provides us with information *about* the environment and simultaneously teaches us how to meaningfully interact with machine-enhanced vision. Immediately following is the observation that

a game that is esteemed by a people may at the same time be utilized to define the society’s moral or intellectual character, provide proof of its precise meaning, and contribute to its popular acceptance by accentuating the relevant qualities. (Caillois 2001:83)

**Image 11: GrandTheft Auto: San Andreas**



Taken as a language, with its own particular grammar and idiom, video games both emerge in correspondence with existing ‘languages’ such as television and cinema, and in reaction to them. On the one hand, video games build upon the existing symbolism, organization, representation, and distribution models of traditional media. The use of text, picture-in-picture, cartoon characters, ‘real life’ advertising in sports games, existing narratives, and so on all connect the symbolic world of video games to that of traditional media. “Increasingly, we inhabit a world that depends less on each individual work being self-sufficient than on each work contributing to a larger narrative economy.” (Jenkins in Wardrip-Fruin 124)

On the other hand, because of the requirement of agency – input from the player(s) in order to advance the storyline or maintain the game dynamic – video games stands in opposition to the passivity of the television audience. This is not to immediately say that a player ‘creates’ a game, but to a crucial extent a game does not exist without input. To quote Dewey once more, “life goes on in an environment; not merely in it but because of it, through interaction with it.” (Dewey 13)

Similarly, cinema played an important role in reinforcing, and responding to the experience of, a changing technological landscape. On the one hand, cinema expressed the conception of reality as a sequential collection of discrete units that, from an epistemological point of view, was closely related to standardized time and telegraphy. Cinema strengthened the technological momentum of the early 20th century as it “mediated simultaneity through technology.” (Kern 314) On the other hand, its particular style of kinetic imagery as well as the technical underpinnings that uses a sampled sequence of images to create the illusion of continuity differed greatly from the previously visually analog theatre. But precisely because of these characteristics cinema provided epistemic access to the accelerated sensory experience of daily life after the introduction of the railroad and automobile. (Schivelbusch)

The condition from which video games emerge and to which they respond is that of the “media torrent,” the overwhelming totality of mediated impulses that pervade daily life.<sup>58</sup> “To an unprecedented degree, the torrent of images, songs, and stories streaming has become our familiar world.” (Gitlin 2002:6) This ubiquity places enormous demands on our ability to process impulses from our environment.<sup>59</sup> Therefore, in order to “manage the unmanageable, we cultivate navigational strategies.” (Gitlin 2002:119) Because video games require input in order to take place, a player initially tries to understand the (elements of the) game environment in order to create coherence within it. Whether through a process of trial and error, or by carefully reading the instructions manual, or by accessing the Internet to look up hints from other players, we are actively engaged in *making sense* of the game space. This is precisely the intellectual faculty that

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<sup>58</sup> “When one considers the overlapping and additional hours of exposure to radio, magazines, newspapers, compact discs, movies (available via a range of technologies as well as theaters), and comic books, as well as the accompanying articles, books, and chats about what’s on or was on or is coming up via all these means, it is clear that the media flow into the home – not to mention outside – has swelled *to* life that has become a central experience *of* life.” (Gitlin 17)

<sup>59</sup> Whereas the condition to which cinema responded was predominantly material (cars, trains, etc.), the contemporary condition is less tangible.

meets the demands of a seemingly meaningless environment. The visual manifestation of the technical underpinnings of contemporary game play, then, not just invites the player to experiment with its elasticity, but is central to it. It follows, once we accept the visual elasticity of video games as integral to their meaning as a cultural form, that contemporary playing goes beyond merely *playing* the game, and transcends into *playing with* the game. This is the topic of the next chapter: Modding.

## CHAPTER 6: MODDING

*“He who loves the game, mods the game. He who mods the game, lives the game.”*

-- Slogan featured on Project Perfect Mod's website, [www.ppmsite.com](http://www.ppmsite.com)

### I. Introduction

Game modding, at its most succinct, is playing with the rules. Rather than following the rules or breaking them, modding is the practice of changing some, not all, of the guiding principles or characteristics of a game. When making additions and changes, modders, purposefully or otherwise, inform an existing game with their own personal “habits of thought.” (Veblen) Consequently, modding is an expressive act and a crucial element in the communicative nature of contemporary game play.

In 1904 Henry George proposed the “single tax theory”<sup>60</sup> in 1904. His theory prescribes that while people are entitled to hold what they have created themselves, everything found in nature (e.g. land) belongs equally to all and is therefore taxable. Particularly, George advocated taxing unimproved land value. Taxes would subsequently become an incentive for people to develop their properties.<sup>61</sup> To explain how the theory would work in practice, a Quaker woman named Elizabeth J. Magie Phillips designed a game, called the *Landlord's Game*. In it, players move around a square board made up of

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<sup>60</sup> Briefly, the single tax theory prescribed that people should be entitled to hold what they have created themselves, but that everything found in nature (e.g. land), belonged equally to all and was therefore taxable. Henry George in particular advocated taxing unimproved land value, to provide an incentive for people to develop their properties.

<sup>61</sup> “Take now... some hard-headed business man, who has no theories, but knows how to make money. Say to him: “Here is a little village; in ten years it will be a great city-in ten years the railroad will have taken the place of the stage coach, the electric light of the candle; it will abound with all the machinery and improvements that so enormously multiply the effective power of labor. Will in ten years, interest be any higher?” He will tell you, “No!” Will the wages of the common labor be any higher...?” He will tell you, “No the wages of common labor will not be any higher...” “What, then, will be higher?” “Rent, the value of land. Go, get yourself a piece of ground, and hold possession.” And if, under such circumstances, you take his advice, you need do nothing more. You may sit down and smoke your pipe; you may lie around like the lazzaroni of Naples or the leperos of Mexico; you may go up in a balloon or down a hole in the ground; and without doing one stroke of work, without adding one iota of wealth to the community, in ten years you will be rich! In the new city you may have a luxurious mansion, but among its public buildings will be an almshouse.” In Heilbroner, R. (2000) *The Worldly Philosophers*, Penguin, page 186.

“streets” of land that belong together. Players can purchase the squares they land on, provided it is not already owned by one of the others in which case they pay its owner “rent.” Once a player owns all three lots in a street, she can develop it by building houses and finally a hotel, thereby increasing the rent an opponent pays whenever she lands on it. The ultimate goal of the game is to gain ownership of all available land to the point where only one single player remains, and all others have been bankrupted. Phillips’ game proved so popular that she sold it thirty years later for \$500 to a company called the Parker Brothers, who renamed it *Monopoly*.

Image 12: Patent Drawing for Phillips' board game

No. 748,626. PATENTED JAN. 5, 1904.

L. J. MAGIE.  
GAME BOARD.

APPLICATION FILED MAR. 23, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

**Fig. 1.**

Witnesses  
*F. L. Ourand*  
*M. H. Ourand*

Inventor  
*Lizzie J. Magie*  
 by *John A. Saul*  
 Attorney

THE MORRIS PETERS CO. PHOTO-LITHO. WASHINGTON, D. C.

Today, there are approximately 2,000 unique variations on the original *Landlord's Game*. Some of them stay close to the original; others not so much. The more colorful examples include: Brew-opoly, Lighthouse-opoly, Garden-opoly, Oceanopoly, Pirate-opoly, Mayberry-opoly, My-opoly, Irishopoly, Sexopoly, Wineopoly, Python-opoly and Dino-opoly. Next, there also exists a host of religion-based varieties, such as Bibleopoly, Catholic-opoly and Mormon-opoly. And, last but not least, a few that have not lost the educational qualities. Eco-opoly's sub-title describes the game as "an edutainment board game," following, in all caps, "SAVE THE EARTH." The game *Anti-Monopoly* "starts where Monopoly ends [as] players compete with each other to return this virtual economy back to a competitive, free enterprise system."<sup>62</sup> Other versions, like the German *Provopoli - Wem gehört die Stadt* applies the same rules to describe a conflict between two groups battling over ownership of the city:

Ziel der roten Gruppe ist es, mit Hilfe von Demonstrationen, Besetzungen, Attentaten, Blockaden oder Gefangenenbefreiungen ihre Ideologie durchzusetzen, Ziel der Blauen Gruppe ist, dies nach Möglichkeit zu verhindern, und Ziel des Spieles ist es, dem Spieler oder der Spielerin ein kritisches Denken über bestehende Machtverhältnisse zu geben.<sup>63</sup>

These examples all share that they are, more or less, based on the original board game and feature tokens that relate to the topic of the game. But more importantly, despite their differences, the various incarnations all inform the same game system with different ideas. Each offers a slightly altered version of the rules, the game pieces and overall setting. This practice of retrofitting a game's narrative economy and customizing its parts is called *modding*.

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<sup>62</sup> Source: [http://www.antimonopoly.com/the\\_board\\_game.html](http://www.antimonopoly.com/the_board_game.html) Site accessed July 10, 2008.

<sup>63</sup> "The goal of the Red Team is, using protest demonstrations, occupations, assassination attempts, blockades or by freeing prisoners to push through their ideology, the goal of the Blue Team is to prevent this from happening as much as possible, and the goal of the game is to give the player a critical thinking with regards to existing power relations." (Translation JD). Source: <http://de.wikipedia.org/wiki/Provopoli> Site accessed July 10, 2008.

Since the *Landlord's Game* (1904), game play has changed dramatically. It, like many other forms of entertainment, has taken on an increasingly digital character. Instead of rolling dice ourselves, a computer now provides us with random numbers as part of our playing. Rather than playing chess with a remote friend by sending our next move via mail, advanced computer networks facilitate (a)synchronous game play. And instead of socializing on the basketball court, we now meet our friends in virtual dungeons. And as playing increasingly relies on a digital environment, so too does modding. Consequently, the phenomena of game modding emerges at the intersection of two contemporary phenomena: hacking and textual poaching.

## II. Hacking

Hacking and modding are two closely related forms of playing with the rules. “[F]or hackers,” Thomas informs us, “technology is a playground.” (47) The popular image of fuzzy-mustached young men typing gibberish into a computer terminal and ultimately triggering Armageddon, Thomas argues, reflects our anxiety about these same technologies. (xx) To counter this image, Thomas’ *Hacker Culture* (2002) offers a vision of hackers who are not motivated to break the technological system, but rather explore how it mediates social relationships: “[t]he meaning of technology is found not in our usage of it but in our relationship to it.” (63)

Thomas locates the origin of hacking in the suburbs: whereas “the suburban landscape provides little of interest for youth culture, the world of computers and networks provides a nearly infinite world for exploration.” (xiii) Hacking in that sense elaborates on the traditional teenage practices that seek to negotiate control over a space, is akin to skateboarding, adolescent graffiti and vandalism. Hacking provides the space “in which youth, particularly boys, can demonstrate mastery and autonomy and challenge

the conventions of parental and societal authority.” (xiv) The absence of a physical component in technologically mediated interactions amounts to a replacement of physical contact (“roughhousing”) by “tropes of emotional aggression and ownership.” A common term used when beating someone in online game play, for instance, is “pwned,” which is a mistyped version of “owned.” The underlying implications are that the loser is, in effect, rendered the property of the victor, who, unintentionally revealing his or her excitement, fatally mistyped. Along these lines technology is

primarily about mediating human relationships, and that process of mediation, since the end of World War II, has grown increasingly complex. Hacking, first and foremost, is about understanding (and exploiting) those relationships. (xxi)

In the same way that *the Landlord’s Game* sought to explain the complexities of the single tax theory, hacking and modding are practices that emerge from a desire to gain insight into the abstractions that make up our world. Thomas identifies three elements that help nuance what it means, in this context, to “understand.”

#### *Technology versus the Technical.*

Technology is “a broad, relational, and cultural phenomenon,” and (if properly interpreted) informs us about “human relationships and the manner in which those relationships are mediated.” (48) The telephone and the postal system both mediate human relationships by facilitating communication across great distances. As a technical phenomenon, however, they are very different. And so the latter, “the technical,” also requires asking “instrumental questions.” An assessment of the material qualities is insufficient in understanding how technology is part of everyday life. “[W]e cannot simply examine the manner in which hacking is done, the tools used, or the strategies that hackers deploy – the instrumental forces that constitute hacking. Instead we must look at the cultural and relational forces that define the context in which hacking takes place.”

(10) To understand technologies we have to contextualize them. Video games, too, are fundamentally related to the practices and habits of a society. For modding this means that its technical components—the editor programs, broadband connectivity, and necessary hardware—must be contextualized in the everyday realities of gamers. In other words, modding is not a phenomenon that emerges purely because of a certain degree in technological advancement, as the *Landlord's Game* illustrates. Instead, everyday aspects of the larger milieu in which game modding exists inform its practice.

*True Hacking versus Derivative Hacking.*

As the more sophisticated of the two, a “true” hack is one that testifies of understanding the system it exploits. It requires an intimate knowledge of the various technical components that make up a technological system and their characteristics. According to Thomas, “the achievement is in the process of discovery, exploration, and knowledge.” (43) The personified image of a true hacker, then, is one of an engineer who truly understands how a system works (or does not) and is therefore capable to bypass its security or exploit its weaknesses.

At the other end of the spectrum, derivative hacking requires no knowledge of how a system operates. Succinctly, this generally means that someone has located a security flaw, has written an application that exploits this flaw, and has made this application available online. A derivative hacker merely obtains the exploitative program and runs it: “[n]o specialized knowledge is needed, and often the program will come with instructions for use.” Without having to actually understand whatever system one seeks to control, these are “application hackers,” who do nothing more than “download cracking and hacking utilities and start running them on their machines and all of a sudden they find out that they can break into systems.” (Thomas 44) Different from the

1960s programmers who sought to understand the full range of technical components and how they inform human relationships, the derivative hacker is a more contemporary phenomenon. Namely, it elaborates on the notion of the “end-user.” Identified by Robert Cringley as the cornerstone of computer company Apple’s success, the “philosophy of the end-user [is] the idea that computer manufacturers and programmers must separate the process of production and programming from the idea of use.” (1996) By positioning the end-user as merely a consumer of hard- and software, computer culture, Thomas argues, “became divided into two classes: programmers/engineers and end-users.” (65) The personified image of a derivative hacker is that of an end-user: someone who uses a program written by someone else without fully understanding how the relevant hardware and software components work. Modding, in turn, takes place on varying levels of complexity. As will be explained later in greater detail, modding can be relatively simple (e.g. map) or vastly complicated (e.g. ‘total conversion’). Using Thomas’ vocabulary, a map, which only takes several hours to create using someone else’s software, is a derivative mod. A total conversion, which may require a large team, an extensive time period, and deep understanding of the underlying software, is a true mod. This distinction is relevant to modding, because it defines more narrowly the difference between (an end-user) playing the game and playing with the game. Cheats, whether a specific code that unlocks certain features, a small program to be installed, or a text that describes step-by-step how to move about the game world are, in this context, derivative mods because they require no actual knowledge of the game’s underlying architecture.

#### *Process versus Outcome.*

In understanding the ways in which technology mediates social relationships, there are different points of view on the use value of information. Although popular

belief generally implies that illicit access to, for instance, credit card information jeopardizes people's financial information and security, hackers benefit from this type of information in unexpected ways. Thomas recounts an incident in 1995, when hackers obtained and circulated a list of twenty thousand credit card numbers from the Internet service provider Netcom. Within months hundreds of hackers had gained access to the list. But "while the public could only see the threat of massive and extensive credit card fraud, hackers took a different perspective." (66) The value of this information was in the other information that it, in turn, provided. The credit card numbers were part of Netcom's method to verify users' identities during technical support calls. To gain access to the Netcom accounts, one merely had to call customer service and asking to have one's password reset. Upon confirming the caller's identity by asking for the associated credit card number, Netcom would, unknowingly, give a total stranger access to its customer's account. Based on this anecdote, Thomas concludes that "the file's value (and threat) was not to e-commerce or for credit card fraud; rather, the threat came from the ability to exploit its value as information." Notably, there were only a few instances in which the credit cards were actually used. As one hacker explains: "They had much greater value for hacking Netcom." Thomas continues,

to the hacker, pure information is usually boring. The excitement lies in knowing how to get the information, regardless of its content. [...] Understanding how to modify the phone, what changes have to be made and how to make them, is an example of access information. It is information that provides access to more information. (67)

It is the challenge of the process itself, to truly understand information and manipulate it in such a way that it gives access to more information, and not a possible outcome, that motivates hacking.

In summary, the combination of these three elements—technological context, an intimate knowledge of a system's working, and the use-value of information—positions

both hacking and, by extension, modding not merely as tinkering with a machine but as processes of understanding. Or, to paraphrase Thomas, the excitement lies in knowing how to modify the game, regardless of its content.

However, playing with the rules of a system is but one side to modding. Another important aspect is the preexisting narrative universe of a game world. By modding, people reconfigure the original ‘text,’ if it can be called that, of a game, and replace it with another. This practice is not new. A key text that explains how media consumers recombine commercially produced text to explore narratives beyond the boundaries of its original is Jenkins’ *Textual Poachers: Television Fans & Participatory Culture* (1992).

### III. Textual Poaching

Jenkins kicks off with the following statement:

This book is written on the assumption that speaking as a fan is a defensible position within the debates surrounding mass culture... [It] perceives fans as active producers and manipulators of meanings. (23)

Focusing on avid fans of the science-fiction universe *Star Trek*, *Textual Poachers* presents “an ethnographic account of a particular group of media fans, its social institutions and cultural practices, and its troubled relationship to the mass media and consumer capitalism.” (1) Central is the notion of fans (of a particular body of cultural texts) as opposite to its owners (in this case media companies).

Building on French sociologist Pierre Bourdieu, Jenkins approaches fans from a discussion of ‘taste,’ “rooted in social experience and reflect[s] particular class interests.” These “taste distinctions,” argues Jenkins, “determine desirable and undesirable ways of relating to cultural objects [and] desirable and undesirable strategies of interpretation and styles of consumptions.” (16) Along these lines taste and the larger “aesthetic

preferences” that legislation and public pressure impose serve to organize and protect society according to a particular set of ideals. Jenkins explains:

Fan culture muddies those boundaries, treating popular texts as if they merited the same degree of attention and appreciation as canonical texts. (17)

Taste as a socio-culturally enforced set of likes and dislikes, then, is a way of organizing society. The problem, as Jenkins claims media companies see it, emerges when fans “assert their mastery over the mass-produced texts which provide the raw materials for their own cultural productions.” (23) Jenkins recounts an early 80s incident when fans circulated an X-rated fanzine based on *Star Wars*. Lucasfilm, the owner of this fictional universe, at first tried to censor fan publications by threatening with legal action against anyone who would violate the “family values” of their property. To this end Maureen Garrett, the director of the official *Star Wars* fan club, circulated the following letter:

Lucasfilm Ltd. does own all rights to the Star Wars characters and we are going to insist upon no pornography. This may mean no fanzines if that measure is what is necessary to stop the few from darkening the reputation our company is so proud of... Since all of the Star Wars Saga is PG rated, any story those publishers print should also be PG. Lucasfilm does not produce any X-rated Star Wars episodes, so why would we be placed in a light where people think we do? ... You don't own these characters and can't publish anything about them without permission. (30)

However, despite the colorful illustrations on which Jenkins builds his theories, *Star Wars* and *Star Trek* date the work. It clearly predates the transition toward digital production and distribution of media content, which allow for many-to-many communicative exchange. For all its merits, the book seems fatally rooted in an old-line media model that exclusively facilitates one-to-many communication. But Jenkins anticipates this by relying on a second Frenchman, de Certeau, from whom he borrows the term “active reading”: “fans cease to be simply an audience for popular texts [and] instead become active participants in the construction and circulation of textual meanings.” (24)

Far from being writers...readers are travelers; they move across lands belonging to someone else, like nomads poaching their way across fields they did not write, despoiling the wealth of Egypt to enjoy it themselves (de Certeau 174).

The negative connotation of poaching, meaning “to hunt illegally” or “steal,” is obvious. It presupposes a finite cultural universe in which, once a text has been illegally appropriated, it has been taken from its original owner forever. Not only does it attach the concept of ownership to cultural practice, but it also does so from a perspective of scarcity. In the case of digital media that facilitate many-to-many communication and allow for an infinite number of reproductions at minimal cost, this is pertinently untrue.

Despite the book’s limitations, its concept of fans, or users, poaching a text applies well to gamers altering game content. Jenkins, for example, offers the idea of a “moral economy” to describe the “fan community norms and practices that explain how and why fans justify appropriations of proprietary texts as well as set limits to those appropriations. (Postigo, 2008:68) The struggle between consumers and producers demands a justification and, particularly when directly going against content owners, fans express their attitudes with regards to ownership. Mods raise similar questions and modders are often well aware of the legal constraints of their ‘End-User License Agreement.’<sup>64</sup> But the most poignant aspect of fan-culture that Jenkins identifies is the instance at which fans extend the existing narrative economy and use it as a platform to explore alternative storylines, concepts, plot variations and ideas. One example, which is incidentally also depicted on the cover of Jenkins’ book, is a graphic rendition of two male Star Trek characters engaged in a homosexual encounter. This fan-made image, so argues Jenkins, uses the familiarity of an existing text, namely the Star Trek universe and the two characters, to explore a deviating plot line or possibility. He offers so-called slash

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<sup>64</sup> A so-called Software License Agreement presents a contract between a producer and an end-user of computer software, granting the user a software license. The terms under which an end-user can utilize the licensed software are described in the ‘End-User License Agreement,’ or EULA.

fiction as a prime example. Deriving its name from the “/”, slash fiction presupposes an implicit erotic relationship between characters from the Star Trek universe, such as “Kirk/Spock” and “Picard/Q.” Slash fiction generally involves two same-sex characters engaged in a sexual relationship. Fans use elements from the show as ‘evidence’ and incorporate it in erotic fiction. According to Jenkins,

In refusing to demarcate a certain denotative space for homosexuality within the text, they left Star Trek open to wholesale reclamation.... Soon, all of the characters are potentially queer. (261)

It is here that textual poaching provides the second pillar for our definition of modding. Game mods employ pre-existing ‘text’ for purposes of epistemic investigation (“what if”) in two ways. The narrative universe of a game forms the first text, and relates to the battling monarchies of chess, or the highly emotional and symbolic national context surrounding a simple game of soccer. It is, in other words, the larger universe in which a game takes place. Huizinga already observed this when he noted how to arcane societies, playing was an essential to ensure the order of the universe and the prospect of a plentiful harvest. (1951) Modding essentially reorganizes elements from the narrative context and gives it another meaning, creates different associations or edits it otherwise. The various examples for *Monopoly* games essentially all share the same underlying game mechanic. But on the surface, they each feature a unique universe: *Bibleopoly* and *Pirate-opoly*, to be sure, each present a different narrative universe within the same game mechanical setting.

Secondly, considering the digital underpinnings of contemporary game play, textual poaching also relates to remixing the underlying computer code. This code is generally presented in textual form. In the same way that the perhaps more familiar Hyper Text Mark-Up Language (HTML) is essentially a small text file that tells a web-browser the colors, images, words and so on to display, the software for a game also uses

text characters. And modders take the underlying text of the original game, and recombine it. A game's software code may contain information describing the strength of two characters. Let's say the standard value for character A, a human, is 100 and character B, a fanciful alien from outer space, is 300. These values are noted somewhere in the overall game's software. Modding, in a very literal way, means changing the text that describes A and B by assigning a value of (for example) 100 to character B. By doing so, a modder redefines the existing relationship between A and B. And consequently, with both characters having equal strength, the nature of game and the various strategies and tactics that existed before has now changed.

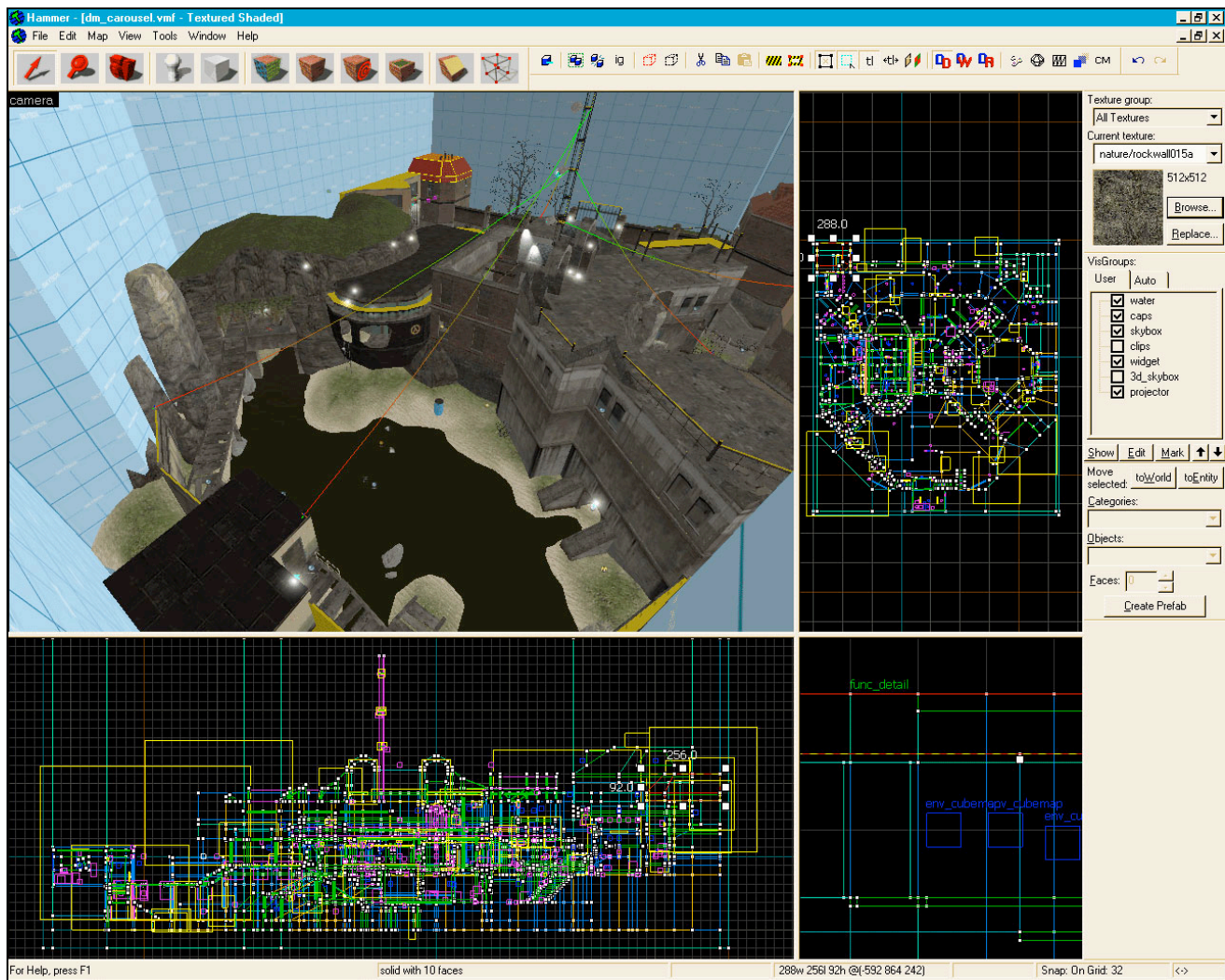
Textual poaching, in summary, is the second practice that informs modding. By making changes to a shared text, on both a narratological and mechanical level, textual poaching allows to explore alternative scenarios. Finally, in combination with hacking (process of understanding), modding is making changes to the mechanical and narrative economy of a game. Modding is playing with the rules.

#### **IV. Review of Contemporary Literature on Modding**

A substantial portion of literature on modding concerns itself first and foremost with the phenomenon's economic implications. As one of the first to write on the subject, James Wagner Au dates video game modding back to 1983 when game companies first began enlisting audiences in the production process. In "*Triumph of the Mods*," an article for Salon magazine, Au places the practice within the larger optimistic context of open-source computing: "[it] represent[s] the most visible success of the free software movement of larger culture." He makes his case by quoting baffled game industry executives. One of them, Scott Miller, CEO of 3D Realms, admits, "We just didn't expect players to take the time and effort to create their own development tools." Miller

refers to the 19-year old gamer, Ben Morris, who created the “Doom Construction Kit” (later replaced with “Worldcraft” in 1996). This program, now in its 4.1v incarnation and renamed *Hammer*, facilitates even novice users to quickly create customized levels.

**Image 13: Valve Hammer Editor, v4.1<sup>65</sup>**



Au also touches on the growing scale of modding, by quoting another game professional, Cliff Bleszinski, lead designer for Unreal, who estimates that “somewhere around 5 to 10 percent of players have tinkered with the [editing] tools.” With over two million sold copies for his game *Unreal Tournament*, Bleszinski approximates that nearly half of all “players have downloaded and played mods or levels.”

<sup>65</sup> Source: Wikipedia, <http://upload.wikimedia.org/wikipedia/en/9/92/Valve-hammer-editor.jpg> Site accessed August 5, 2008.

As part of the economic perspective on modding, the tension between gamers and game companies plays a central role. “[C]ommunal self-policing,” Au argues, created a bond between the game company and its fans. An important mitigating factor between id Software and modders, for example, was id’s request “that fans modify only the registered version of *Doom*—not the freeware version.” And Au notes that “[a]lmost all modders abided by this request; many even incorporated elements in their mods that prevented their use in the freeware version of *Doom*.” In this way, game companies and traditional media companies stand at opposite sides of the spectrum:

Many of the best game companies now count on modders to show them the way creatively and to ensure their own survival in a savagely competitive market. This stands in marked contrast to the music and film industry, which vindictively discourages fans from tinkering with their content and clings to an outdated interpretation of copyright.

A text closely following Au’s, is Morris’ *WADs, Bots and Mods: Multiplayer FPS as Co-creative Media* (2003). Using many of the same examples, she argues “beyond the idea of participatory media.” (1) Game companies are fundamentally different from traditional media companies, since the latter “tend to actively discourage fans from modifying content.” Central to understanding this relationship is her concept of “co-creative media” in which “neither developers nor player-creators can be solely responsible for production of the final assemblage as “the game.”

This new terminology is based on an e-mail survey from 1999 in which, according to Morris, “83% [of the respondents] had completed some sort of creative project related to [Quake II], from creating webpages to model and level design.” She does not reveal her sample size, but places a heavy accent on the economic aspects of modding. Morris argues that unlike game companies, “constrained by marketing, censorship and strict financial considerations that affect game development,” modders have more freedom to experiment. A strong motivation for “player involvement in the

FPS scene” lies in creative input, allowing “players to see themselves as playing a recognized role in the games they enjoy and in the gaming culture.” (6)

This ongoing celebration of game companies somehow being closer to their fan-base continues in Marriot’s *Games Made for the Remaking* (2003). Using the same examples (e.g. Bleszinski), it seems as if only a handful of people define the entire modding scene. “This is one of the very few entertainment mediums in which you see this kind of organic process happen. [...] I think this industry is really kind of grounded a lot closer to its fans, to its roots, than a lot of other businesses.”

The singular focus on economic implications also forms the central argument in Kücklich’s *Precarious Playbor: Modders and the Digital Games Industry* (2005). He analyzes the End-User License Agreement of the *Half-Life* software development kit, to show how its parent company Valve benefits from a modding community. Although he offers a much more sophisticated understanding of the overall industry—“Even for big players, profit margins are so slim that they rely increasingly on licenses and sequels to ensure profitability”—Kücklich remains focused on economics. He identifies a list of benefits. Modders, for example, extend a game’s shelf life and customer loyalty by making additional content freely available. In addition, the modding community, he argues, essentially functions both as a “test-market” and a recruiting tool. Like Au, Kücklich brings up the point that id Software eventually hired many of the original modders for *Doom*.

Drawing on material from an ethnographic study of the relationship between game developers and fans, Banks, who actually works at a game company, unlike the previous authors, explores the implications of incorporating user-generated content. His *Opening the Production Pipeline: Unruly Creators* (2005) takes on the assumption that fan content can be a worthwhile “out-sourcing strategy.” Banks describes the experiment

of a game company attempting to employ fans as a form of free labor. His analysis, however, quickly identifies a high degree of confusion and frustration between game company and the voluntary labor force. Hence the term “unruly creators.” Upon closer inspection it seems that the development team was particularly slow in responding to the free laborers and failed to provide them with adequate tools to collaborate (e.g. a message board). Who, indeed, are the truly unruly?

Banks insists that the group of fan content creators was simply too large and ultimately “the project resulted in frustration, misunderstanding and communication problems.” (4) Subsequently, management abandoned the official third-party content creation program. Instead, fans are now employed only after management approves their project proposals. Banks concludes that “such *ad hoc* fan content creation networks do not fit comfortably within the frame of corporate project schedules. They’re unruly, messy and disruptive.” (6)

And, finally, Postigo (2005) sets out to describe how “[m]odders and other *Duke Nukem* fans [...] struggled to understand the limits of their appropriations as delineated by copyright law.” (63) Summarizing online discussions on the topic, Postigo builds on Jenkins’ terminology of a “moral economy” as an entry point. He, too, focuses almost exclusively on the question of ownership between game developers and gamers.

Fortunately, a few authors have also begun to write from an angle that does not immediately focus on economic benefits and goes beyond the usual dichotomy between work and play. Nieborg approaches modding, “a wide array of user-created game texts,” with a discussion of a total conversion mod for *Battlefield 1942* called *Desert Trauma* (Trauma Studios, 2003).

This Gulf War themed multiplayer mod weighs more than 950MB and stands out in sophistication and detail. The gameplay of Desert Combat (DC) focuses on modern day combat resulting in fast-paced action sequences, an element that may well have contributed to its popularity.

According to the developers, the mod is centered on present-day conflicts in the Middle East from the Gulf War, Somalia, and Afghanistan to possible future conflicts.

Despite the team behind the mod being squarely motivated to use it as a way to break into the industry, their efforts at least grace the notion that modding a game can be a communicative process. By offering a “present-day conflict” as a setting, the developers give players the opportunity to experience these battles through the lens of a video game. Although he does not excavate it much further, Nieborg seems at least aware of the notion that games are capable of offering an editorialized simulation of a real-life situation.

It is possible to add a few more articles to this list, but it is apparent that the dominant paradigm in thinking about modding is economic. Consequently, literature on modding suffers from a few flaws. As Jenkins describes in his *Textual Poachers*, the common aspect in thinking about user-generated content or fan labor is the struggle over ownership and how it may or may not positively affect a company’s bottom line. But the economic implications of user-generated game content are but one perspective on mods. The game *Urban-Terror*, for instance, is an entirely free, open-source game. While it may not offer the same dazzling graphics and subsequent online traffic, it is an ongoing project and depends on a community of free laborers for its updates and hosting. Many of its available servers feature the standard levels that come with the game, but an equal number of servers host their own, custom-made content. Here, modding revolves around community and much less so around economics. Other examples of open-source, community-built games are *Sauerbraten*, *Warsow*, *Tremulous*, *World of Padman*, *Nexuiz*, *Alien Arena*, and *OpenArena*.<sup>66</sup> As Thomas pointed out in the example of Netcom’s

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<sup>66</sup> “Comparison of free software shooters,” Sepht, [www.linux-gamers.net](http://www.linux-gamers.net), Dec 29, 2007.

Source: <http://www.linux-gamers.net/smartsection.item.81/comparison-of-free-software-shooters.html> Site accessed August 29, 2008.

security breach, modding, too, cannot simply be approached from an economic, transactional point of view. Like hacking, modding should be investigated for the “use value of information”; the ideas, concepts, criticism and opinions that modding facilitates.

Following, the almost exclusive focus on the economic implications of predominantly FPS games betrays a grave underlying bias. Namely, most literature is woefully unaware of any historical context. In most cases, it seems, that modding first emerged with appearances of computers and related networks. But an active community that makes changes to a game, whether game mechanically or aesthetically, long predates the computerization of entertainment. *Dungeons & Dragons*, to name but one, started as a game that simply required a pen, paper and some funny dice. Updates to the game mechanic (which would nowadays be called “patches”), were sent via a mailing list. Moreover,

The most foundational aspect of *Chainmail* [D&D’s predecessor] was the encouragement of imaginative play within its rules. The introduction to the game stated, “With no other form of wargaming – or nearly any form of game for that matter – is the player given the scope and imagination that miniature warfare provides”<sup>67</sup> (*Chainmail 1979 7*). Players were encouraged to determine their own win conditions, their own terrain layouts and simulate realistic or fantastical battles as they willed.

In other words, contemporary literature focuses exclusively on a recently emerged form of game modding, and is thereby fatally technologically determinist.<sup>68</sup>

Lastly, perhaps the biggest problem with current literature on modding is a lack of data. Although Morris does offer a few mysterious numbers (“83% of all respondents”), and Postigo illustrates his theory with a few choice quotes, the overall approach seems to be anecdotal. Certainly, when investigating the economic implications of modding, it

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<sup>67</sup> Gyax, Gary. *Chainmail*, 3<sup>rd</sup> Edition. TSR 1979. Pg 7.

<sup>68</sup> I choose here to stay close to one of the predecessors of videogames, both in terms of game mechanic and narrative universe. But there exist, of course, many varieties of, for instance, baseball, each suiting the particular circumstances of the people playing it (e.g. small field, fewer than required players).

would be relevant to quantify this practice somehow. For example, how many mods do people create? How much time do people spend on modding versus playing? This type of inquiry may then inform higher-level economics. If, as Kücklick and Postigo claim, modding extends the shelf life of a game, then by how much? One year? Two years? These relatively easy questions are a great opportunity to better understand modding.

In response to this current body of literature, a few inquiries emerge. If games are capable of communicating ideas and practices, and given how integral modding is to contemporary game play, I would argue for an exploration of the stories that gamers tell each other. Like Flanagan, I agree with architect Karen Frank, who notes: “We construct what we know, and the constructions are deeply influenced by our early experiences and by the nature of our underlying relationship to the world.” (Flanagan, 2003) Like fans, gamers use a set of shared texts to speak to a larger reality and explore territory left mostly untouched by its corporate owners. Is it true, as Halter observes in *From Sun Tzu to Xbox*, that

[u]nsatisfied with the versions of history that [...] commercial game invoke, artists, hobbyists, and activists are building their own games in response, creating a new means of cultural critique via gaming? (xxvii)

So what are the narratives that spontaneously emerge in the practice of modding? Or, as the following chapters will ask, what drives contemporary game play?

## CHAPTER 7: READING CCG

*Les grandes personnes aiment les chiffres. Quand vous leur parlez d'un nouvel ami, elles ne vous questionnent jamais sur l'essentiel. Elles ne vous disent jamais : « Quel est le son de sa voix ? Quels sont les jeux qu'il préfère ? Est-ce qu'il collectionne les papillons ? » Elles vous demandent : « Quel âge a-t-il ? Combien a-t-il de frères ? Combien pèse-t-il ? Combien gagne son père ? » Alors seulement elles croient le connaître. Si vous dites aux grandes personnes : « J'ai vu une belle maison en briques roses, avec des géraniums aux fenêtres et des colombes sur le toit... », elles ne parviennent pas à s'imaginer cette maison. Il faut leur dire : « J'ai vu une maison de cent mille francs. » Alors elles s'écrient : « Comme c'est joli ! »*  
 -- Le Petit Prince, Antoine de Saint-Exupéry, 1946

### I. Introduction

At their most abstract, video games are visual manifestations of our subconscious. At their most concrete they contain an observable discourse, if you know where to look. The previous chapters have made the theoretical argument that games are a form of communication. The onus of the following chapters is to qualify this claim and assess whether the expressive nature of game play one is informational or experiential. To establish this in the context of contemporary video games, I will look for instances where ideas inform game play, in three parts.

The first chapter of the analysis section offers an in-depth reading of the real-time strategy game *Command & Conquer: Generals* (CCG) and its expansion *Zero Hour* (ZH) by Electronic Arts (2003). This game revolves around a military conflict between three factions: the US, China and the Global Liberation Army. Using existing protagonists (e.g. China), characters inspired by or directly based on real people, and attributing each faction with specific military characteristics, CCG invites to partake in the fictional micro-management of a real geo-political conflict. I investigate this connection between an artificial game environment and a larger, real-life reality by offering a description of

the military strength and weaknesses of each faction and their respective campaign-missions.

The second, *Mods and Message Boards*, takes a quantitative approach in investigating opinions of amateur game designers—modders—and how these potentially inform their game play. By performing a keyword search for Iran in a large set of CCG-related message board posts, it first establishes the overall sentiment toward this country. Then it compares these findings to instances where Iran is explicitly mentioned in user-created maps and mods.

The third and last chapter, *The Games People Make*, uses a qualitative approach in assessing the categories that emerge in user-created content for CCG. A content analysis of the text files that accompany maps and mods created by gamers looks for certain qualities in both the logistics of this type of design (e.g. mention of copyright) and commonly occurring narratives (e.g. “What if”-scenarios).

## **II. Reading of *Command & Conquer: Generals and Zero Hour***

My reasons for choosing CCG as my research site are the following. Generally, a researcher and his/her topic have a prior relationship. Or perhaps I'm generalizing based on my own experience. Regardless, I believe strongly that in order to write with authority on a topic, one must be intimately familiar with it. Film scholars who never watch movies are suspicious. Unlike other forms of media entertainment, video games require many more hours than an average movie or television show. This creates obvious difficulties on an operational research level. In fact, already a few scholars have committed the painful mistake of making claims about games they never played.

One well-known study (Anderson & Dill 2000) used *Castle Wolfenstein 3D* (Apogee, 1992) and *Myst* (Cyan, 1995) as treatment and control group stimuli, concluding in a pretest that the two games were alike enough on excitement to justify the choice. (Willaims, 2005)

Despite both titles presenting game play from a first-person perspective, *Castle Wolfenstein* is a shooter game that centers on murdering one's way through numerous levels, filled with well-armed attacking Nazi's. *Myst*, on the other hand, presents a much more tranquil game in which the player never encounters a single non-player character, and instead is asked to solve a long sequence of riddles and puzzles.

Over the years I have played various installment of the *Command & Conquer*-series, both alone and in tandem with my brother or with my various roommates. I do not consider myself an expert on the topic, but I am nonetheless familiar enough with the game's overall storyline and its game mechanical history (the slight changes a game shows through years of development) to undertake this investigation.

Next, as I will show, the *C&C*-series is a large franchise with a global audience. Over its lifetime, the series has sold well over 30 million copies, which by video game standards makes it one of the most successful titles of all time. Consequently it has an enormous fan-base who, combined, amount to a thriving community. In honesty, it is important to note that I, in a life outside academia, regularly work with video game companies, including the developer of CCG: Electronic Arts. But besides the fact that I do not receive compensation from Electronic Arts in any way, they are entirely unaware of this project. For this reason I have effectively protected my research from any conflict of interest.

Following, the current literature on video game mods, as we have seen, focuses almost exclusively on First Person Shooter Games (FPS). Without discounting the cultural relevance of type of game, the FPS genre knows no historical predecessor. This tends to give their analyses a somewhat historically isolated character. Strategy games, on the other hand, have existed for a much longer period of time. The study benefits from this in that it can build on existing theory, which (despite a large focus on non-computer



**Table 9: Sales Figures for Command & Conquer series, 2004 - 2007<sup>70</sup>**

(Organized by narrative arc, units shipped)	2004	2005	2006	2007	subtotal	% of total sales
<b>Tiberian</b>	172,869	111,686	90,236	643,682	<b>1,018,473</b>	<b>43.77</b>
Command & Conquer: Tiberian Sun (1999)	2,683	217	8	1		
Command & Conquer: Tiberian Sun: Firestorm (exp. pack) (2000)	5	2		1		
Command & Conquer: Renegade (2002)	17,781	2,828	421	108		
Command & Conquer 3: Tiberium Wars (2007)				583,582		
Command & Conquer/Tiberian Dawn	152,400	108,639	89,807	59,990		
<b>Red Alert</b>	37,299	7,834	2,503	180	<b>47,816</b>	<b>2.06</b>
Command & Conquer: Red Alert (1996)	38	27	8			
C&C Red Alert	8	19	2			
Command & Conquer: Red Alert: The Aftermath (exp. pack) (1997)	1	8	2	3		
Command & Conquer: Red Alert: Retaliation (1998)	34	52	4			
Command & Conquer: Red Alert 2 (2000)	26,023	5,846	2,220	49		
Command & Conquer: Yuri's Revenge (expansion pack) (2001)	11,195	1,882	267	128		
<b>Generals</b>	391,674	287,355	200,203	84,747	<b>963,979</b>	<b>41.43</b>
Command & Conquer: Generals (2003)	272,508	200,828	174,799	84,474		
Command & Conquer: Generals – Zero Hour (exp. pack) (2003)	119,166	86,527	25,404	273		
<b>Other/Compilations</b>	3,773	295	151,448	140,935	<b>296,451</b>	<b>12.74</b>
First Decade			151,440	124,374		
Arsenal	3,759	294	7			
Theater of War	12		1			
Worldwide Warfare	2	1				
Saga				16,561		

CCG could originally be purchased both online on Amazon.com and in retail stores such as Best Buy, GameStop and Wal-Mart. The boxed version of the game itself, *Command & Conquer: Generals*, costs \$44.99 and includes an instruction booklet, a CD-ROM and promotional material. The expansion pack, *Command & Conquer: Generals – Zero Hour*, costs \$19.95 and includes two CD-ROMs. Currently, both titles are part of a collector's edition that combines all C&C titles from 1995 to 2003 and costs \$19.95.

After installing the game on a computer and starting it, the player is presented with the logos of the companies involved in its development and publication. In my case the logo of Electronic Arts appears at the same time with a whispering, child-like voice that spoke: "Challenge everything." Following, the eye-shaped company logo for Aspyr,

<sup>70</sup> Source: NPD Research; Wikipedia.org Site accessed August 18, 2008.

which is responsible for bringing the game to a Macintosh platform, appears. Next three lines of white text appear against the black background, reading: “ESRB notice. Game Experience May Change During Online Play.” After this, an animation automatically begins to play.<sup>71</sup> A mixture of horns and electric guitar music swells as the middle of the screen opens to a series of intermingling, partially displayed faces of middle-aged men in suits. Only mouths and noses are shown and the images move in front of, and mix with, each other. After twelve seconds a male voice-over says: “In the real world, leaders solve conflicts with words.” The sliding images of half-faces disappear to the left and give way to the words: “Words like:” after which an animation of a facility with rockets readies itself for launch. As the rockets take off and disappear at the top of the screen, the words “scud launcher” appear at the same time as the voice-over reads them out loud. In the next screen the rockets crash into what seems to be a market where thirty or so people disperse from the center of impact. Before their fate becomes obvious the camera pans to the right, switches scenery and shows for only a brief moment a retreating squadron of damaged tanks being pursued by a small buggies, shooting rockets. Immediately after the camera overlooks a plane flying over an industrial-looking area. The words “carpet bombing” appear in the center of the screen, and again the voice reads them out loud. The plane drops its cargo and building and vehicles on the ground explode. A large explosion, involving several structures, follows but before the dust settles the screen moves to another scene in which a dozen vehicles explode. A third set of words, spelling “tomahawk missile” is overlaid on a boat, and is followed by more exploding vehicles, a suicide car bombing of a U.N. hummer, the breaking of a dam, two line-ups of tanks facing each other, a train crashing through several military vehicles and troops as they

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<sup>71</sup> For convenience’s sake, I’ve compiled a few examples on my website. Please open a browser on your computer and type in the following URL: [www.waffler.org/CCG](http://www.waffler.org/CCG) N.B. After the logos have been displayed, the player can choose to skip the intro movie.

cross its tracks, followed by the impact of a large missile at the center of an intersection in an urban landscape, turning the screen entirely white at the peak of its explosion. As the dust slowly settles, the image fades to black and the words “Who will prevail?” appear at the center of the screen. After a total of 48 seconds the animation reaches its completion and the game’s logo appears.

**Image 14: Command & Conquer: Generals Logo**



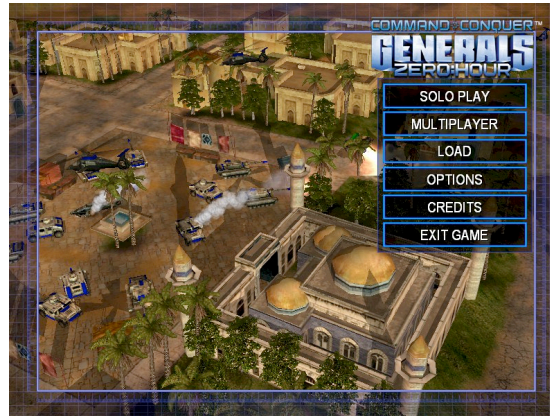
#### **a. Game Mechanics**

Before diving into the overall narrative of CCG, this section describes its game mechanical features. By this I mean how the game works: from the menus at the start of the game to the launch of a nuclear missile, CCG is made up of a set of rules and conventions that structure and regulate game play. Inherent in these game mechanics are decisions. As described in the chapter “Games as Communication,” the organization of rules and relations among game pieces, as in the case of chess, comprises a self-contained universe. The following describes the game mechanical dimension of the CCG universe.

After the introduction sequence, the game opens to its ‘main menu’ section. In the background seven tanks, seven hummers and three helicopters remain stationary on a square next to a large structure with towers on all four corners. The camera proceeds to fly around the square, as cars equipped with a gunner on the back drive into the screen. The stationary vehicles respond by firing at the oncoming traffic. One after another, the cars explode. This sequence forms the backdrop for the main menu, which appears in the

top left corner and shows the options: solo play, multiplayer, load, options, credits and exit game.

**Image 15: CCG Main Screen**



**1. Solo Play.** Opens up a next menu with six options:

**1.1 Training**

Normal, Hard, Brutal, Back

**1.2 China**

Normal, Hard, Brutal, Back

**1.3 GLA** (which stands for Global Liberation Army)

Normal, Hard, Brutal, Back

**1.4 USA**

Normal, Hard, Brutal, Back

Selecting any of the options above starts “campaign mode.”

**1.5 Skirmish.** Opens a menu that allows the player to select the conditions and map for a multiplayer game against either the computer (Normal, Hard, or Brutal Army) or a human opponent. It allows choosing the color for each army, assign specific factions or assign one at random, whether multiple players play independently

or in teams, the game's speed, and 'select map.' This last option opens another pop-up menu that shows a list of map names, each followed by a number in brackets, indicating the maximum number of players. To the right of the menu a small image of the map is displayed, indicating the starting locations for each army, and the whereabouts of resources (both oil derricks and supply stashes) on the map. In addition to the category "Official Maps," there is one labeled "Unofficial Maps." More on this last category later.

### **1.6 Back**

**2. Multiplayer.** Opens up a next menu with three options:

**2.1 Gameranger.** Selecting this option exits out of the game and opens a browser window set to [www.gameranger.com](http://www.gameranger.com), inviting the player to sign up and download the service. According to the site, the program allows to "play you friends online, in over 500 games and demos."

**2.2 Network.** A pop-up menu titled "Network Lobby" appears, allowing a player to change his/her name, list the various players on a local network, create a game (see Skirmish), join an existing game, connect directly to another player, or go back to the main menu.

### **2.3 Back**

**3. Load**

**3.1 Load Game.** Opens a pop-up menu that lists the various game states that have been saved. Once selected, a game can be loaded

so that the player may return to the exact state of any map previously saved.

**3.2 Load Replay.** Opens a pop-up menu that lists the various recorded games, and allows to Load, Delete or Copy them.

## **4. Options**

### **4.1 Display Options**

Resolution: 800 x 800, 1024 x 768

Detail: High, Medium, Low, Custom

Brightness

### **4.2 Audio Options**

Music Volume: adjusts the music volume during game play

Sound FX Volume: adjust the sound effects (e.g. explosions) during game play

Voice Volume: adjust the volume of voices throughout the game

### **4.3 Control Options**

Alternate Mouse Setup: switch the right and left click buttons on a standard mouse

Scroll Speed: the speed with which a player moves across the screen when press the mouse pointer against the borders of the camera perspective

### **4.4 Network Options**

IP Address: allows setting a specific IP address for multiplayer game play over a local network

At the bottom of the menu appear three buttons, labeled Default (restoring the original settings), Accept (confirming the customized settings) and Cancel (back to the previous menu). Underneath these buttons, the game's version, in this case 1.7, is displayed.

**5. Credits.** Changing the backdrop and scrolls production credits over the screen from the bottom to the top.

**6. Exit Game.** Opens a menu that asks “Are you sure you want to exit?” and give the options “Yes” and “No.”

**Image 16: CCG Game Play Screenshot**



CCG is a ‘real-time strategy’ game (RTS): a game progresses in real time rather than turn-based. Typically, players are in charge of securing necessary resources to build a sufficiently large offensive force (e.g. soldiers, tanks, etc.) to successfully claim and defend the available resources in the game and thereby defeat an opponent.

Seen from an isometric perspective—a graphical projection which presents three-dimensional objects in two dimensions—the player builds a force strong enough to beat an opponent. To do so she first establishes an economy of factories and energy supply. Resource-gathering units, as the name suggests, collect the basic materials needed to

generate income. In the *Tiberium*-series, for example, players harvest the extraterrestrial substance Tiberium, a mysterious alien crystal that serves as the base material of both weaponry and more productive materials.

This game mechanical model allows for different game play varieties: one can opt to build defensive structures and increase the number of offensive units until they allow for an effective sweep across the map. This is known as “turtling.” Alternatively, players may mobilize offensive troops early on to sabotage an opponent’s nascent economy and cripple its development. This is known as “rushing.” Thus, an important part of game play revolves around effectively defending one’s resource gathering units from enemy fire. A successful economy affords buying and building weapons and upgrades, ultimately resulting in an arms race with players trying to gain an advantage by controlling more resources. Battles take place on maps that, particularly in single-player mode, present a series of logically following obstacles. For example, in order to expand one’s economy, it may be necessary to capture additional resources. But dispatching a convoy means stretching one’s firepower across a greater geographical area, thereby weakening one’s defensive abilities. Along these lines players engage in a process of constant, real-time, decision-making.

CCG centers on a fictional conflict between three armies: the USA, the Global Liberation Army (GLA), and China. Each force’s characteristics demand its own unique play-style, but all of them are well balanced to hold no obvious advantage over the others. Each faction can be beaten by the two others.<sup>72</sup> The following section describes in great detail to explain how the underlying game mechanics of CCG, the affordances and constraints, cast each faction as a unique protagonist within the larger narrative.

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<sup>72</sup> This, of course, is not an assumption, but a conclusion after playing CCG for many, many hours.

At their core, all three factions are identical: each feature Barracks to train infantry, War Factories that generate vehicles, Tech buildings that enable upgrades, a super weapon and a unique hero unit. But while each offers a similar menu, their individual units differ, thereby making different demands on the player depending on the faction she choose.

The player can build, train and produce units and structures. Each comes at a cost, and, given finite resources, decisions must be made on how to adequately rise to the challenge. This budgeting problem presents itself from the start. From the moment the game begins, the player's focus goes toward mobilizing enough resource gathering units to generate an income. In CCG, there are Supply Depots, from which the player can collect resources by bringing them to an assigned building within her base. For instance, in the case of the GLA, a worker walks back and forth between the Supply Depot and Supply Stash where, once deposited, the supplies turn into income. This is the economic backbone for each faction.

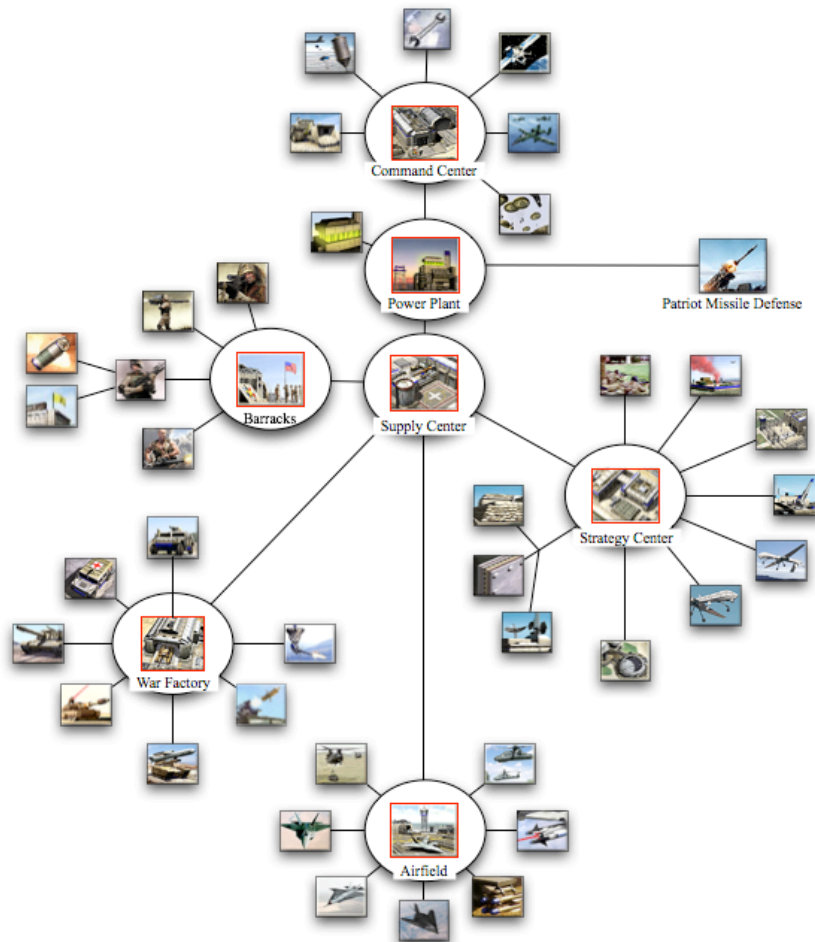
Following, after establishing a steady stream of income, the player can begin building defensive and offensive units and structures. However, a GLA worker brings in \$300 at a time, which buys exactly two Rebels. For a Scorpion Tank (\$600), a single worker has to go back and forth twice, for a Quad Cannon (\$700) three times, and so on.

**Table 10: Comparison of Common Units for Each Faction**

	<b>GLA</b>	<b>Cost</b>	<b>China</b>	<b>Cost</b>	<b>USA</b>	<b>Cost</b>
<b>Resource Gatherer</b>	Worker	200	Trucks	600	Chinook	1,200
<b>Standard Infantry</b>	Rebels	150	Red Guard	300	Ranger	225
<b>Rocket Launcher</b>	RPG Trooper	300	Tank Hunter	300	Missile Defender	300
<b>Hero Unit</b>	Jarmen Kell (sniper)	2,000	Black Lotus (hacker)	1,500	Col. Burton (demolition)	1,500
<b>Standard Tank</b>	Scorpion	600	Battle Master	800	Crusader	900
<b>Advanced Tank</b>	Marauder	800	Overlord	2,000	Paladin	1,100
<b>Transport Unit</b>	Technical (5)	500	Troop Crawler (8)	1,400	Humvee (5)/Chinook (8)	700
<b>Superweapon</b>	SCUD Storm	5,000	Nuke	5,000	Particle Cannon	5,000

By generating income, the player can begin building her army. But each army has different offensive and defensive capabilities. The USA focuses heavily on the use of advanced technology and aviation. The first critical element of its economy is its Chinook resource gatherers. These units can also be used to transport infantry (Rangers, Missile Defenders, Path Finders, Pilots and Col. Burton) and vehicles (Construction Dozer, Humvee, Crusader Tank, Paladin Tank, and Tomahawk). The second critical element is its power supply. Without it, none of its other buildings can be constructed. In addition, whenever there is a shortage in energy supply, several of the USA faction's capacities automatically shut down, such as radar and anti-air defense. Consequently, its Strategy Center and Particle Cannon require several power plants in order to be operational. Overall the USA employs a lot of technologically advanced units. Missile Defenders can be upgraded with laser-guidance (adding 25% in damage), Tanks can be equipped with unmanned supporting units, and its airport produce stealth planes. In addition, most of the USA's vehicles can be equipped with a Battle Drone, which circles around its parent unit, continuously repairing it as well as attacking any enemy units nearby. Another available feature is the Scout Drone, which merely follows the parent units, but greatly increases its sight range. And finally the Particle Cannon, the USA's super weapon, fires a beam from a satellite onto anywhere on the map. Its hero unit, Colonel Burton, is a demolition expert that can move without being seen by opponents, unless he's firing, planting a bomb, or near enemy structures. In addition to his ability to blow up buildings, he can climb up and down cliffs that are impassible for other units.

**Graph 6: USA--Tree Structure of Buildings, Units and Upgrades**

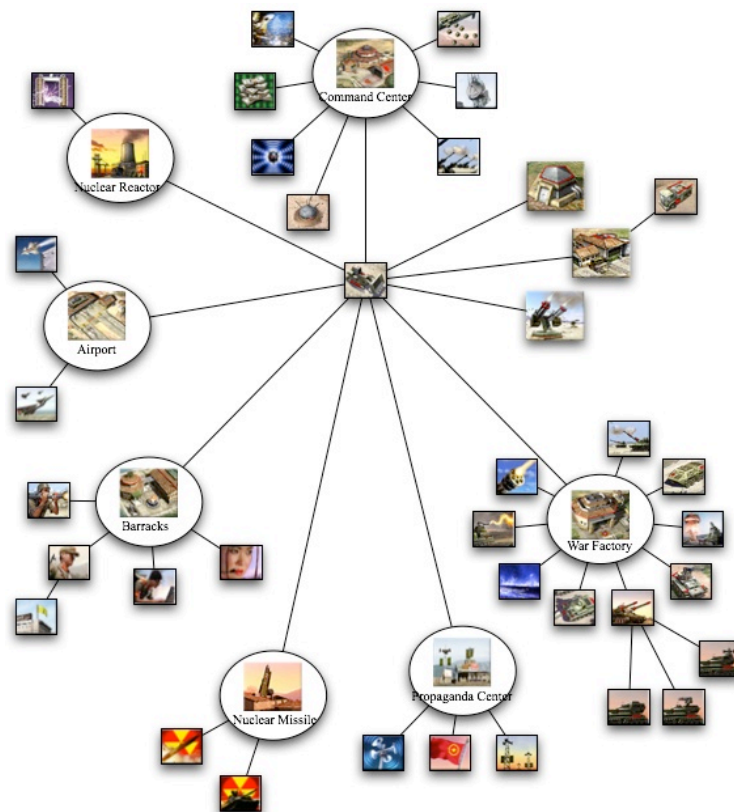


The advantage of this technological muscle is mitigated by the fact that units and buildings are relatively expensive, and therefore taking longer to build an overwhelming force in terms of numbers, and highly depend on power. Indeed, this energy dependency is one of the major weaknesses of the USA faction.

Different from the USA's reliance on individually strong units, the way China is set up its strategic advantage comes from fighting in large numbers. Its Battle Master Tanks, for instance, are weaker, but also cost less to build (\$800). China's Red Guard yields two soldiers per trained unit. In other words, for \$300, China buys two soldiers instead of one, allowing the faction to quickly raise a large army. And its seemingly expensive Troop Crawler (\$1,400) includes eight infantry units. Merely pricing units

differently pushes the player into a different direction, and subsequently a different overall strategy. China's technology further expounds the benefit of attacking in great numbers. Several of its available upgrades benefit a variety of units. After building the Propaganda Center, the player gains access to a feature called Nationalism (\$2,000). Purchasing it gives China's Red Guard, Tank Hunter, and Battle Master Tanks a so-called "Horde Bonus," giving these units a 25% increased firing rate while grouped. Similarly, the Overlord Tank can be equipped with a propaganda tower, providing a healing bonus to nearby units.

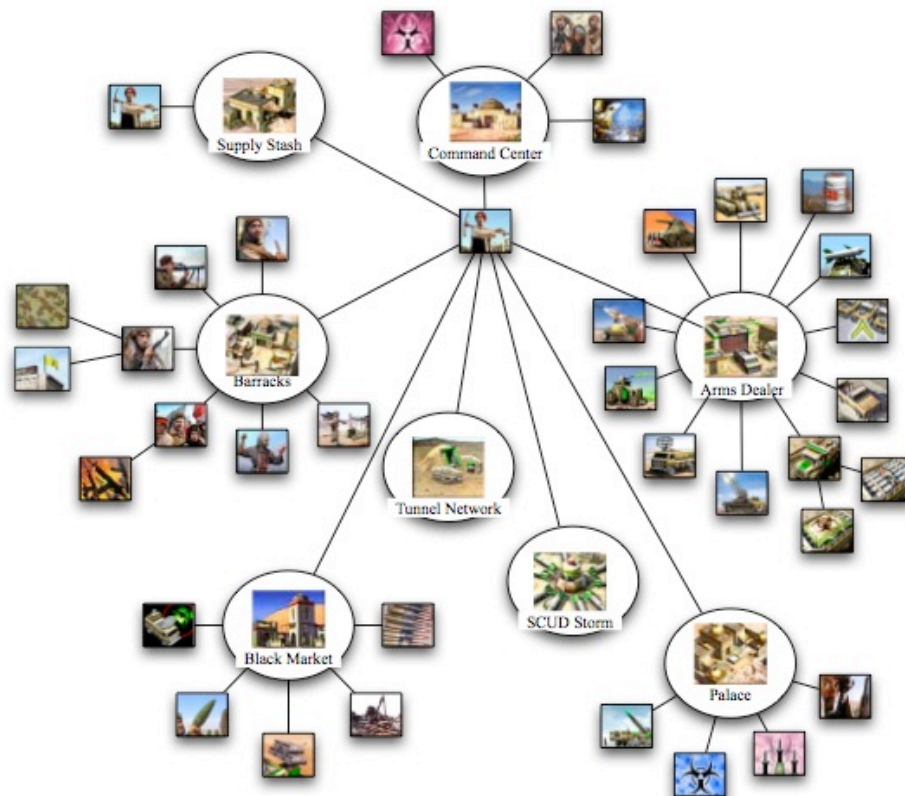
**Graph 7: China--Tree Structure of Buildings, Units and Upgrades**



With no technological advantages and the absence of an air force, the GLA depends on a larger variety of infantry troops and a different economy model. This faction's overall strategy centers on stealth and guerilla tactics, such as suicide units, ambushes, and hijacking. In addition to regular resource-gathers, most offensive vehicles can be upgraded by salvaging wreckage. Units can also collect cash bounties by killing

enemies and a “black market” structure generates additional income. The basis of the GLA economy is spread among different sources of income rather than a single stream, unlike its opponents’. But perhaps more importantly, the GLA does not rely on electricity. The Chinese and American economies, on the other hand, are both vulnerable to power outages.

**Graph 8: GLA--Tree Structure of Buildings, Units and Upgrades**



The GLA features a great variety of infantry units (Rebel, RPG Trooper, Terrorist, Angry Mob, and Hijacker) and vehicles (Scorpion Tank, Technical, Radar Van, Toxin Tractor, Quad Cannon, Rocket Buggy, Marauder Tank, Bomb Truck and SCUD Launcher). Rather than relying on individual strength, like the USA, or on great numbers of China, the GLA ace card is stealth. In addition, most of its units can be upgraded, but unlike China, the GLA does not need an expensive building to do so. The Technical, a vehicle equipped with a machine gun that can also transport up to five infantry units, can

become stronger by using debris from destroyed vehicles. By driving over the ‘remains’ of a defeated unit, Technicals gain in speed, strength and firepower. As an example, the first, basic version comes equipped with a machine gun. In its second incarnation a Technical sports a cannon, and finally a missile launcher. Scorpion Tanks, Quad Cannons, and Marauder Tanks can do the same.

**Image 17: GLA Technical**



Infantry units are obviously not nearly as fast as vehicles. To enable the GLA to move quickly, it has a Tunnel Network. These structures are simple and quick to build, and allow both infantry and vehicle units to move almost instantaneously across a map. In addition, a Tunnel Networks facilitates both quickly retreating and attacking from several sides at once, without having to first drive or walk all units across the environment.

Upgrades form a central strength of the GLA. The Black Market structure offers several added bonuses: Armor Piercing Bullets (for all Technicals, Quad Cannons, and Rebels), 25% more damage and more ammo for Rocket Buggies, Junk Repair (allowing all vehicles to repair themselves), Radar Scan and Worker Shoes (improving Worker’s speed and carrying capacity). Similarly, building a Palace adds Camouflage, Anthrax Beta, Arm the Mob, and Toxin Shells.

The GLA fields several notable units. First, there is the Angry Mob. While it consists of several people, it moves as a single unit, and throws Molotov cocktails. At the same time, it is very effective against building and tanks, heals itself, and, as it continues

to pillage, grows in strength. Upgrading it with AK47s (“Arm the Mob”) greatly increases its potency.

**Image 18: GLA Angry Mob**



Second is the use of toxins. Comparable to the Chinese Dragon Tank, the Toxin Tractor is capable of clearing garrisoned structures instantly. It does so, however, not with fire, but, as its name suggests, with toxins. Its mode of attack is a stream of toxic liquid that can also be used to spray and contaminate an area. Toxins only moderately affect vehicles, but almost instantly kill infantry units and civilians.

In the ZH expansion, most of the game mechanical strategy for each faction continues. The USA’s tech heavy army gains Sentry Drones, a Microwave Tank and an Avenger (a mobile anti-missile unit). Other additions include Countermeasures (reducing the amount of damage aircraft take from missile fire), Hellfire Drones (an unmanned drone available to most vehicles that shoots hellfire missiles), Chemical Suits, Bunker Busters and the Mother Of All Bombs, a low altitude Fuel Air Bomb.

ZH adds a Helix-2 Helicopter (similar to the Overlord), an Internet Center which increases the amount of money its Hacker units generate and keeps them safe, and a Listening Outpost which spots cloaked enemies. China also gets a Satellite Hack, which reveals enemy locations, Carpet Bomb, and Frenzy, which, when used, further increases the firepower and armor of units.

Finally, a Combat Motorcycle, Battle Bus, and Saboteur further fortify the GLA’s reliance on stealth and sabotage. Similarly, Camo Netting, which hides the location of

Stinger Sites and Tunnel Networks, Booby Traps, and Sneak Attack (the ability to place a tunnel network exit anywhere on the map allowing to strike in the middle of an enemy's base) continue the GLA's guerilla's tactics. But perhaps its most pertinent 'weapon' is the ability to build fake structures, which are indistinguishable to the enemy. This makes it effectively impossible for opponents to know what the main headquarters is before launching an assault.

Besides the individual differences between the factions, CCG's overall game mechanics offer a skewed portrayal of conflict. A player engages the game in the knowledge that it is possible to beat a challenge with the tools provided. Often, successfully completing a mission is a matter of locating a particularly troublesome enemy unit on the map and, once destroyed, eradicating the remainder. Unlike 'real' war, the CCG battlefield is always solvable. It is not in the interest of EA to publish a game that no one can beat. As a result, CCG presents an artificial, that is to say limited, interpretation of conflict. In soccer it would be easier to simply grab the ball with one's hands and walk into the opponent's goal. Similarly, CCG can only offer finite, solvable conflict situations that are challenging because of their demands on the player, and not because they make sense.

Despite its attempts to make missions appear as if they relate to a larger context, this context never spills over into the game play. Missions are resolved in two ways: either by completely destroying all enemy forces, or by meeting a particular condition that triggers an enemy's capitulation. Never do two warring factions come together under a cease-fire condition or by finding common ground. Also, a conflict is never affected by any external events, in the sense that a battle is postponed or halted because of a diplomatic effort bearing fruit outside the scope of the game situation.

The game also presents a set of limitations. For one, there is no fourth, fifth or sixth army that participates in any of the conflict. In other words, conflicts take place in isolation, without any chance of outside interference. Like soccer there are clear demarcations drawn around the game, but unlike soccer, there is no third party that participates in the conflict. (Occasionally, for instance, a soccer match is postponed or cancelled because of rowdy fans.)

Similar to a game of chess, the underlying game mechanics are organized in such a way that playing against the computer as well as against (several) human opponents is always 'fair.' That is to say, both in campaign game play and multiplayer-mode players start out on equal terms. Although a narrative might position the player in a scenario that initially seems hopeless, all missions can be completed successfully. At no point does the player assume command right as, say, a nuclear missile has been launched against her, thereby taking away any opportunity of building up the necessary economy to launch a counterattack.

Following, there exists an odd coincidence in the way that one army's strengths are geared towards each other's weaknesses. The heavy reliance on technology and power by the USA army is offset by its absence in the GLA. Alternatively, Path Finders and Gatlin Tank provide a significant threat to the abundant GLA infantry units. CCG revolves around using units effectively: a Dragon Tank, which is essentially a flame-thrower on wheels, is strong against infantry and buildings, but weak against tanks and aircraft. The Raptor, the USA's primary jetfighter, is strong against other aircraft, tanks, and light vehicles, but vulnerable against missile armed infantry and anti-air defenses.

CCG thus presents certain ideas and values about a larger context of military warfare on one level through its game mechanical organization. Or, as Dunnigan observes,

Ultimately, the goal of all wargame design is communication. Consciously or unconsciously, a wargame designer transmits specific messages, concerns, and even conclusions to the players of the game through the medium of its structures and procedures. (Perla 185)

The game also speaks to this larger reality through its narrative economy.

### **b. Narrative Economy**

As described in the previous section on game mechanics, CCG offers various modes of game play, one of which is “Solo Play.” After selecting this option, the player can choose a training mission, which explains the basic commands of the game, or one of the factions: USA, China or GLA. Playing in Solo Play, a player leads an army through a number of increasingly challenging situations. These individual missions are tied together in such a way as to offer a cohesive plotline.

**Table 11: Command & Conquer: Generals – Campaign Mission Titles**

<b>China</b>	<b>GLA</b>	<b>USA</b>
1.1 The Dragon Awakes	2.1 Black Rain	3.1 Final Justice
1.2 Hong Kong Crisis	2.2 Aid Supplies Drop Zone	3.2 Treasure Hunt
1.3 A Flood of Violence	2.3 Chinese Occupied Capital of Kazakhstan	3.3 Guardian Angel
1.4 Broken Alliances	2.4 Incirlik Air Base	3.4 Stormbringer
1.5 Scorched Earth	2.5 Toxic Waste Management Containment Facility	3.5 Blue Eagle
1.6 Dead in Their Tracks	2.6 Splinter Cell Controlled Region	3.6 Desperate Union
1.7 Nuclear Winter	2.7 Soviet-Era Rocket Facility	3.7 Last Call

Each mission starts in a similar fashion. While the game ‘loads,’ presented by a bar at the bottom of the screen that slowly fills up, a brief sequence explains the objectives. A satellite view of the relevant region is displayed, including various specifics on the map. During this intro, a voice over addresses the player, describes the situation, shows icons of any specific troops available for the mission and gives a bullet pointed summary. Once the mission is loaded, the screen fades to black and the name of the mission and its locale appear in white lettering on the left side of the screen. The player is then shown a brief sequence, using in-game animation, to lead up to the mission.

In the following, I will give a detailed account of the introductory animations and sequences for the first missions for each faction in both CCG and the expansion pack *Zero Hour*. Transcribing the narration during the introduction sequence, the animated sequence that sets up the story, and the mission objectives, offers an insight into CCG's overall narrative economy.

### **China – The Dragon Awakes (1.1)**

[Female voice] *“Greetings Comrade General. I am Lin Zhong, your senior intelligence officer. Today, as we claim our rightful place among the world’s leading nations, your troops will provide security for the glorious display of our military strength. The people’s army will not tire in our pursuit of the terrorist enemy.”*

[Image 1] A list of three bullet points summarizes the situation: “China’s might is on parade,” “Protect China’s military display,” and “Eliminate any threat in Beijing area.” The camera fades to black. White lettering reads: “Chinese Military Parade, Beijing. The Dragon Awakes.” The camera shows a military parade rolling by as people cheer and music plays. In an alley, that looks out to the side of the parade, a car parks.

[Image 3] A voice says *“Ready and in position.”* Another asks, *“Is it time?”* A third, sounding as if coming over a radio signal, says: *“The package has been secured and will arrive as planned. Proceed with attack.”* Then the car begins to make its way toward the parade, while the driver yells *“For the cause.”* The camera switches to a position overlooking the parade [Image 4] and the car slams into a tank and explodes on impact. The music stops, people begin to scream and start to run away from the explosion. At the same time, several buggies armed with rockets appear slightly further up and begin firing at the remaining tanks. Another suicide car bomber goes off and blows up four more

tanks. A voice says: *“All units, return fire.”* Mayhem breaks out and several voices give instructions at the same time, adding to the chaos.

The camera moves to the front of the parade [Image 5] and shows a truck with a big crate on the back speeding towards it. A voice says: *“Victory is ours.”* As it reaches the crowd, the truck mows down several fleeing civilians. It heads straight for the intersection where the first explosion went off and stops in its tracks. A voice says: *“Victory in death,”* and the truck explodes [Image 6], destroying all vehicles near it, killing all civilians and soldiers, and leveling the buildings surrounding it. The white flash of the blast whites out the screens, and crashing sounds can be heard. When the explosion tapers off, an empty, collapsed cityscape remains. The screen fades to black. The next shot looks out over a military base with in its middle four rows of soldiers, headed by three tanks. Lin Zhong says: *“The GLA hoped to deter us with their cowardly attack. We will now strike back and destroy the GLA. Make them pay, General.”* Letters appear on the left of the screen: *“Mission Objective – Destroy the Nuclear Warhead Storage Facility.”* The camera moves to a highlighted base, indicated the building that needs to be destroyed. Finally the camera returns to the military base, the player is given control indicating the start of the mission. [Image 7]

### **GLA – Black Rain**

[Male voice.] *“My General. Accept the counsel of your compatriot Kamrah Kahn. We have lost many soldiers in our struggle with the Eastern Dragon. But as a result our enemy has spread its defenses too thin. They have left important economic and civilian target unguarded. This should be our next objective in the war against the global oppressors. You can lead us to our final victory.”*

[Image 1] The bullet point list reads: “Summary. Many brothers have been lost. China’s defenses are spread thin. Destroy Chinese forces.” The screen fades to black. White lettering reads: “Shymkent DMZ. Operation: Black Rain.” A black and white still image, similar to a photograph appears with the sound of a flash, showing a road with several vehicles. A voice says: “The time has come.” The image comes to life and the camera moves with the cars and trucks that are headed toward a Chinese base. [Image 2] “Our cause is just. And our soldiers stand ready.” Electric guitar music begins to play. One of the cars, armed with a gunner on the back, speeds up and engages the two defense turrets right outside the compound. As it drives past it, the Chinese guards follow it with their gunfire. “We shall fall upon our foes like lightning from a cloudless sky.” The car turns around as the Chinese soldiers run towards it and fail to notice the two suicide bomber cars headed in their direction. The car bombs blow up the two turrets, as a voice says: “Car bombs. Look out!” [Image 3] An alarm begins to wail. The soldiers from inside the compound begin to run to the entrance, right as the two bomb trucks arrive there. A GLA voice says: “They shall flee before our righteous anger.” Another voice says: “Run!” The Chinese soldiers turn around and try to outrun the two trucks in vain. The GLA voice continues: “And their armies will come to ruin,” as the trucks run over the troops. One of the bomb trucks heads toward a nuclear power plant and detonates. [Image 4] The power plant and adjacent building explode and nearby soldiers fall to ground, dead. The second truck continues its path, also toward a powerplant, and mows down a few more soldiers before detonating itself. Two more buildings explode, including a bulldozer parked between them. [Image 5] The camera circles back to what is left of the front of the compound and more GLA forces roll in. Four armed cars park in the middle of the base and take out the remaining Chinese soldiers. Several oil drums explode and fly up high in the air. An alarm sounds, and as the player is given control, a

voice says: “Wipe them out. All of them!” [Image 6] White lettering appears: “Mission Objective. Destroy the Chinese base.” The mission begins.

### **USA – Final Justice**

[Female voice.] *“General, I am lieutenant Eva. I will serve as your com officer for our campaign against the Global Liberation Army. We know the GLA have access to lethal biological weapons, and we have tracked these weapons to Baghdad. Our troops are assembled outside the city and await your orders, Sir.”*

[Image 1] The bullet pointed list reads: “Summary. GLA has SCUD Storm. They are based in Baghdad. Eliminate this threat.” The screen fades to black and white lettering appears: “Iraqi War Zone. Operation: Final Justice.” The camera follows three fighter planes flying over the desert, while a radio voice says: *“Air bomb station. Skies are clear.”* As the jets fly over the USA base, a beeping sound kicks in. A frantic voice says: *“Radar lock! Break. Break!”* The two planes flying on the outside turn to the side, but the middle one continues its course, heading straight toward two soldiers on the ground, armed with bazookas. [Image 2] Despite trying to turn out of their line of fire, the middle plane gets hit and an alarm sounds. The pilot says: *“I’m hit,”* right before the jet crashes into the ground and explodes. A radio voice says: *“Hawk’s down. Anybody see a chute?”* A voice responds: *“Negative. No chute.”* A GLA tank rolls in the camera frame from the top. Another voice says: *“Echo Company, engage,”* and the GLA tank suffers a hit coming from outside the frame. As it stops in its tracks and explodes, two USA tanks roll into the screens from the bottom. *“Roger. Targets acquired.”* The two tanks stop to form a line-up of ten USA tanks. *“Enemy in perimeter. Range 200.”* Electric guitar music sets in, right as an equal number of GLA tanks rolls in from the top of the frame. A fighter chopper flies in from the left. [Image 3] The camera shows two lines of tanks,

face-to-face, as additional vehicles drive perpendicular to them in the back. *“All units stand by.”* The line-up is shown from several angles. *“Fire at will.”* Immediately after this command, the USA tanks fire at the GLA tanks, which return fire. *“I’m hit. Watch the left.”* Several voices speak at once, making it impossible to distinguish what is being said.

The camera glides over the line of USA tanks and it becomes obvious that the GLA’s forces are helpless against the USA’s forces as they explode one by one. *“We have eleven confirmed. All units destroyed.”* The USA tanks advance through the rubble of their defeated enemies. [Image 4] *“More contact. Range 300.”* The camera pans out, moving away from the USA tanks. Again from the top of the screen GLA tanks roll in, while an equal number of USA fighter jets enter the frame as well. *“Fast movement, inbound.”* Each fighter jet shoots two missiles at a GLA tank, thereby destroying them. *“Light ‘em up.”* The camera continues to move forward toward a city. White lettering reads: *“Siege of Baghdad. Day 3.”* Fade out. The camera overlooks a road and a market square at the entrance of the city. [Image 5] *“Rocket launch detected. All units pull back.”* The camera zooms in on the terrain and morphs into a rocket installation. An alarm goes off, the rockets are pointed upward and launched. [Image 6] The screen turns entirely white and then shows a crowded market square. [Image 7] The camera slowly pans out and the rockets crash into the market. All the people instantly die, buildings around it take damage and collapse, and a large green cloud appears. The game’s controls appear at the bottom. *“Watch those clouds, men. Could be anthrax.”* [Image 8] The camera slides away from the market scene toward the USA tank line-up, while lieutenant Eva says: *“General, Washington orders us to enter the mountains and destroy the enemy SCUD Storm.”* White lettering reads: *“Mission Objective. Destroy SCUD Storm.”* Then the

camera moves back to the market square, showing the green cloud again. The mission begins.

To give an idea of the various objectives for each faction and the overall tone throughout their respective campaigns, the following contains a complete transcription of the introductory animation before each mission in CCG.

### **China.**

(1.2) *“An active GLA cell has been unmasked in Hong Kong. It is suspected that the terrorists are targeting the buildings in the commercial center. The cell must be crushed and its members eradicated. Strike hard, and without mercy.”*

(1.3) *“We have a most critical situation. Another GLA cell has infested the area surrounding the Three Gorges Dam. Enemy reinforcements now threaten our valiant troops, including our agent, codenamed Black Lotus. Use any means necessary to halt this GLA advance and annihilate their soldiers.”*

(1.4) *“Agents report that our insidious enemies have constructed a bio-toxin factory in the Tanggula Mountains. You are advised to deploy a commando team led by our fearless operative Black Lotus. Once the strike team has located the factory, the firestorm from our jet fighters will answer the GLA's futile threats.”*

(1.5) *“A major GLA cell has taken hold of Balykchy, and driven the citizens from the city. Our American friends have agreed to help us in our quest to rid world of the GLA. Destroy the city, and crush the GLA like insects.”*

(1.6) *“The moment of ultimate victory is near. The GLA cell masterminding all Asia-Pacific operations has been located in this region. You are authorized to unleash our nuclear arsenal, and reduce our foes to dust. China's future is balanced in your hands.”*

**GLA.**

(2.2) *“My leader. Our agents have learnt that United Nations trucks and planes are en route to the Almaty region with food and supplies. On behalf of the oppressed nations of the world, the GLA should intercept those that we might use them for our most righteous cause.”*

(2.3) *“Our operatives have found allies in Astana, civilians prepared to rage against the Chinese and American aggressors. We can use this army of the street to harass the enemy. While Astana burns, our brethren can loot the city for resupply purposes.”*

(2.4) *“The arrogance of the Americans cannot go unanswered, my General. We must test our devotion to freedom's war and keep Turkey from their imperialist grasp. May our aim be true as we knock their superior airforce from the skies.”*

(2.5) *“Reports from the Aral Sea are not good. The Americans have taken control of our toxin storage facility. We stand to lose a critical weapon in our war of liberation. You must retake these storage bunkers.”*

(2.6) *“A GLA splinter group has abandoned our cause and joined the Dragons to fight against us. This betrayal must be answered with righteous anger. Launch an assault on their convoys and sever the supply lines. Then crush the traitors and their Chinese masters.”*

(2.7) *“This is the battle we have dreaded, and prayed for, my brother. We must take control of the Cosmodrome from the Chinese and Americans. The missiles there will serve a deadly feast against our enemies, and start the true liberation of the world! This is our destiny!”*

## **USA**

(3.2) *“We have tracked terrorist cell leaders to Al Hanad in Yemen. We believe the leaders behind the biowar attack are hiding in the city. Our Comanches are scouring Al Hanad, searching for these criminals.*

(3.3) *“The U.S. division has been ambused by the GLA in the Hindu Kush Mountains. Our forces have fallen back with the GLA in close pursuit. Take command of a small Comanche base near Salom to cover the retreat. Do your best, General.”*

(3.4) *“Despite our losses in Hindu Kush, America is still committed to destroying the GLA. Spy satellites have discovered a major GLA training camp on the coast of the Caspian Sea. The battle is already underway. Good luck, General.”*

(3.5) *“United Nations diplomats have agreed to meet with GLA in Kabara City, near the hydro electric dam. The President believes the GLA cannot be trusted, and we have been placed on standby security alert.”*

(3.6) *“Sir, a rogue Chinese general and his followers have joined with the GLA in their mountain stronghold. The enemy is dug in deep, relying on fortified tunnels. We must launch an attack immediately.”*

(3.7) *“We have surrounded the GLA capital. They have biological weapons and we know they will use them. The Chinese have pledged their support for this final assault. We must not fail, General. The world is watching.”*

In the expansion pack, *Zero Hour* (ZH), the struggle between the three factions continues. In this second installment, each army receives additional units and the overall storyline carries over from the first part. Nonetheless, the various missions no longer carry specific titles, but are simply called “mission 1,” “mission 2,” etc. Notably different in ZH are the introductory scenes that set up the game’s context. The scenarios are now no longer explained by a military officer, but by a reporter.

### **China.**

[The letters “BCTV” flash onto the screen and move to the top left corner. A stock ticker runs numbers and arrows at the bottom, and an inset screen opens on the left. A female Asian reporter looks directly at the camera and speaks into a microphone.]

*“Good afternoon. As America withdraws to strengthen homeland defense, our nation now takes the rightful path to lead against terrorism. In a televised address our premier again denied involvement with GLA hoodlums and condemned their use of stolen Chinese armament against our great ally. The premier’s military commanders have pledged to repel the GLA from former American bases in Europe. China will not allow GLA control of advanced U.S. military hardware. Our opinion polls show majority of citizens support the premier and ask for a swift retribution. From our post in Germany, this is ... Beijing World News.”*

**Image 19: China Interstitial****GLA.**

[The letters “ARC NEWS” glide across the screen, from right to left. Similar to the Chinese newscast, a stock ticker runs at the bottom, and an inset opens up to a reporter.] *“Although the United States has ordered its mercenaries to hunt down Doctor Thrax, the Global Liberation Army has abandoned efforts to protect the rogue scientist, who is known to be unstable. Since this American aggression once more fills the sky with smoke and fire. But despite this air power and combined troops strength, China and America cannot hope to break the GLA chain of command. GLA leaders promise a continuing war of attrition against the enemies of freedom. It is a war they will win. This is Omar Ben Kazali reporting.”*

**Image 20: GLA Interstitial**

## USA.

[The letters “BNN LIVE” glide diagonally over the screen. A stock ticker appears at the bottom, and an inset opens to a reporter.] *“Although America’s military have a fragmented Global Liberation Army on the run following the last conflict here, terrorist activity remains a clear and present danger. Heavily armed assailants continue their occupation of the Bikaner launch facility in Kazakhstan. The GLA has armed the missiles at Bikaner with newly designed chemical warheads. This arsenal is aimed towards Europe. And evacuations of urban centers have already begun. A previous attempt by the Chinese to retake the facility has failed. With Chinese troops battling local warlords to the East, the United States has been asked to undertake the Bikaner mission. Tensions are high. A failed counterstrike could significantly weaken America’s influence and strategic interests in Europe. From Falcon base command center, I’m James Seabury.”*

**Image 21: USA Interstitial**



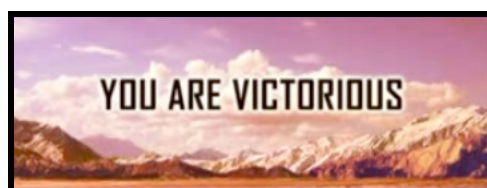
**Analysis.** CCG presents several elements that, combined, create a more-or-less coherent story universe. Specifically, the introductory animations, the way it addresses the player, the mission objectives and the varying strengths and weaknesses of each faction all contribute to a narrative economy.

The game provides a context that frames the various solo play missions. After introducing an overall situation and its subsequent objectives, the player is given control over the game, signaling the start of the mission. This is somewhat of an oddity. Often, games do not require any introduction. A game of chess, does not an introductory narrative as who the two armies represent and why they are fighting. Playing, in principle, does not need intellectual motivation. Consequently the first noticeable aspect about CCG is that it does exactly that: it offers, almost superfluously, a *reason* as to why the game begins where it does. And this is at once the first sign of its artificiality. If the player were to merely begin playing, without a framework placed around it, would the game make sense? Someone with no previous knowledge of CCG or its genre and did not gradually transition into the “magic circle” would be baffled. The moment the game begins, and the introduction ends, it gains meaning because the objectives, the game’s challenge, are explained a priori. Without it, the game would make seemingly incoherent demands on a confused player. For example, in *The Dragon Awakes*, the GLA’s attack on the Chinese military parade *motivates* the entire mission. Because the GLA sets off a nuclear bomb, you, the player, are instructed to destroy the nuclear storage bunker. The pretext of the game informs all the decision-making that takes place once the game starts. (The next section will discuss in more detail what happens if a player does not follow the objectives and instead decides to walk around aimlessly, for instance.) The introduction sets up a scenario within which the player subsequently tries to overcome the presented challenges. In *Final Justice*, the event of a SCUD storm annihilating a market square filled with civilians motivates the USA faction to launch a counter-attack of search and destroy (“we believe the leaders behind the biowar attack are hiding in the city”). In *Black Rain*, the GLA general is instructed to eradicate the Chinese forces from the area and to take back the territory. This begins with a series of suicide attacks on both human

infantry and military structures. It is, in other words, immediately clear from the first scene that the GLA is not an incumbent force, but must regain control over the area. In *Final Justice* these roles have been reversed, and the GLA is the incumbent faction. And *The Dragon Awakes* depicts the Chinese faction as suffering a rogue attack (suicide bombing), which consequently has to be met with “no mercy.”

CCG thus presents an Aristotelian narrative: it has a beginning, a middle and an end. In it the various protagonists are introduced, their relationship explained and a point of contention identified. The player is in charge of the middle and carries the story to one of the two logical, absolute outcomes: either the player successfully rises to the challenge and defeats the opposing army, or fails to do so and is defeated. And the third part, the end, is indicated by one of two simple notifications. The player’s control over the various units in the game world ends, and a pop-up screen reads either “You are victorious,” or “You have been defeated.” (See image.) Unlocking the following mission is the reward for carrying out the objectives properly. Having to replay the current one is punishment for failing to do so.

**Image 22: CCG Victory Screen**



This simple narrative structure is more or less similar for each faction. In CCG a military colleague addresses the player, explains the objectives in bullet points, and sets the player on her way. In ZH, reporters explain the context within which the player takes the reigns. In both cases, a narrator tells the story of what has happened and what is about to happen. This is a very simple and effective way of incorporating a story line. Not only does it offer a logically progressing structure for each individual mission, but it also

provides a degree of consistency. After a mission is completed successfully, the animation for the following one begins. The narrator briefly comments on the previous mission, and then advances the game's overall narrative by explaining the next mission objectives. Ultimately, the entire series of solo play missions for each faction climax. China's narrative, for example, ends in *Nuclear Winter*, with "The moment of ultimate victory is near. [...] China's future is balanced in your hands."

The three protagonists, the factions, each has a different personality. The voice acting, for instance, offers distinct differences. But perhaps more pertinently is the tone of the various missions for each faction. The use of expressions like "as we claim our rightful place among the world's leading nations," conjures up a Chinese army motivated by nationalistic insecurity. Moreover, adjectives such as "our valiant troops" and "our fearless operative," dovetail well with the display of military power in the starting mission's parade. Overall, the Chinese army is predominantly occupied with removing the threat of the GLA. Missions such as *Scorched Earth* and *Nuclear Winter* generally involve a slow progress across the map, destroying small pockets of GLA forces in the process.

From the start the USA faction takes on a role of global police force ("Our Comanches are scouring Al Hanad, searching for these criminals") and protector that is dragged into conflict through provocation (e.g. the SCUD storm in *Final Justice*). Missions involve several instances that entail a rescue-objective: in *Treasure Hunt* the player has to free three captured pilots. In *Guardian Angel* and *Blue Eagle*, the player is asked to purge the area of GLA forces, after they blow up a dam and flood a civilian area.

Lastly, the GLA speaks of "global oppressors" and positions itself in the role of an underdog with taglines like: "despite [their] air power and combined troops strength, China and America cannot hope to break the GLA chain of command." Missions involve

the killing of civilians, robbing U.N. convoys, and the destruction of civilian buildings. In the missions *Aid Supplies Drop Zone* and *Chinese Occupied Capital of Kazakhstan*, the objectives involve stealing “U.N.” supply drops from the civilian population and decimating a city to make room to set up a military base. In addition, throughout the GLA campaign civilian forces join the player in the conflict. In *Black Rain*, a speaker tower in a village square spreads the Chinese “vile propaganda,” and once destroyed, the villagers join the ranks of the GLA. Accordingly, the GLA’s narrative also contains a recurrent element of liberating people. In the end, the storyline climaxes in *Soviet-Era Rocket Facility*, which, once the combined forces of the Chinese and American armies have been defeated, concludes with firing a biological rocket at “a major metropolitan city in China.”

Another story-telling element that contributes to the overall narrative economy is the explicit use of real-life cities and locales.

**Image 23: Mission Locations for CCG and ZH**



Immediately clear from the map above is that most missions take place in the Middle East. Despite the USA faction as one of the three main protagonists, not a single mission takes place on American soil. China is used only three times as a locale, and Europe four times. But whereas the names of cityscapes could have been entirely arbitrary, both CCG and ZH offer almost exclusively real-life places. In those missions where this is not the case, it is because the exact location is kept “secret” or remains unclear. By having the various scenarios take place in real places, the game achieves two things. First, it connects the game to the real-life events that occur in those locales. By explicitly establishing a relationship between the artificial universe of CCG and the larger, real world around it, the game points to the former to stand in for the latter. This connection between what is inside the magic circle and outside of it, is a common observation (Huizinga; Frasca; Bogost). But whereas a game of soccer between two national teams may speak to an implicit tension between two countries, CCG very clearly takes on the topic of the current war in Iraq. Certainly, if there was any doubt about this, then the first USA mission, *Final Justice*, in which the USA takes over Baghdad, is the answer. Why CCG features actual places remains unclear. Nowhere in the accompanying booklet does Electronic Arts make any claims regarding this relationship and whether or not it considers it to be accurate. But the consistent use of real-life names and places suggests that the game’s designers were very deliberate. In an industry where blockbuster titles like *World of Warcraft* (Blizzard), which counts 11 million players worldwide and takes place in a fantasy world, designing a game’s overall setting after a contemporary geopolitical conflict seems an odd choice. *World of Warcraft* is filled with orcs, elves and magic, cities carry names such as Orgrimmar, and common modes of transportation include griffons, enormous bats and flying ships. Instead, CCG serves a stark slice of reality. And rather than presenting a world in which the player may escape, CCG

regurgitates the grim imagery from the daily news. Because ZH incorporates footage of reporters who address and inform the player of the various current events relevant to the game, the expansion makes this connection even more explicit. And despite many of the scenarios in CCG never actually taking place, they somehow come alive by inhabiting the overall space of real reality.

It may perhaps seem somewhat far-fetched to believe that a simple video game may invoke such a strong connection. But it is worth noting that CCG's use of real-life names has met real-life criticism. In 2003, the Chinese Federal Department for Media Harmful to Young Persons censored the game. The institute considered two missions in particular to be harmful: *Hong Kong Crisis*, in which the player is required to destroy the Hong Kong Convention and Exhibition Center, and *A Flood of Violence*, in which a GLA threat is countered by destroying one of the three Gorges Dams, thereby flooding their forces. To accommodate the criticism, Electronic Arts changed many aesthetic elements (e.g. humans were depicted as 'robots'), altered names, descriptions, locations, units and structures, and changed animated in-game sequences. Following much of the same argumentation that so often aims its arrows at violent game play, many seemed unsure that the game universe was fictional enough to not be confused with real life.

In Germany, the Bundesprüfstelle für jugendgefährdende Medien, the federal watchdog for youth-centered media which serves as an official administrative authority of the German government, added CCG and ZH to its index of games, thereby making it illegal to sell the game to minors.<sup>73</sup> According to Bundesjugendministerin (Minister of Youth) Renate Schmidt,

Solche kriegsverherrlichenden Computerspiele wie C&C: Generals, die den Einsatz von Massenvernichtungswaffen gegen wehrlose Menschen zum Ziel erhoben haben, sind grundsätzlich verabscheuenswert. Sie treten

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<sup>73</sup> <http://www.bundespruefstelle.de>

die Menschenwürde mit Füßen und gehören auf keinen Fall in die Hände von Kindern und Jugendlichen.<sup>74</sup>

In order to be removed from the index, EA's modified the original retail version. The game no longer incorporates real-world factions and all portrayal of terrorism was removed. Rolling bombs, for example, replaced suicide bombers, and infantry was made to resemble cyborgs. To be taken off the index and once again considered suitable for retail distribution, the game's publisher really only needed to make the game more fictional, and less realistic.

The second thing the game achieves by establishing a connection to the world outside the magic circle is to become an invitation for the player to explore its narrative. Most people have no first-hand knowledge of, say, the invasion of Baghdad. But CCG offers a simulation, albeit severely reduced, that explores what it would be like to order a squadron of tanks to wheel into the city, all the while remaining under threat of a SCUD attack. The interactive potential of digital media here is employed by the need to make an abstract event more concrete. By micromanaging a few tanks in a video game and pretending that we are in fact invading Baghdad, its real-life counterpart comes to life. Clearly the fictional universe of the game is limited, if not factually incorrect when it comes to describing with a credible degree of accuracy what this process would be like. But precisely because of its failure in representing the world in high fidelity, and consequently asking the player to suspend her disbelief, that CCG becomes real. Whenever we visit the theater we are asked, both implicitly and explicitly, to accept that the people on stage are simultaneously themselves and pretending to be someone else. Similarly, CCG uses various narrative constructs, like the news reporters presenting an

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<sup>74</sup> Source: "C&C: Generals ab Freitag auf dem Index," February 26, 2003, Heise Zeitschriften Verlag. URL: <http://www.heise.de/newsticker/C-C-Generals-ab-Freitag-auf-dem-Index--/meldung/34838> Site accessed January 30, 2009. "Glamorized warfare in Games like C&C: Generals, which celebrates the use of weapons of mass destruction against defenseless people, is fundamentally offensive. It shows a total absence of respect for human beings, and has no place in the hands of children and teenagers." (Translation by JvD.)

introduction and the use real names, to create a temporary fictional space through which we may experience what something would be like. Of course, the notion that, in 2009, people employ a high degree of technological capacity to conjure entirely poetic experiences would certainly make Plato roll over in his cave. But its relevance as an object of investigation originates in the fact that we live in a world in which we are asked every day to believe what we are shown. This habit of thought, in which a series of cut and pasted images present us with a version of the world that we can only see but not touch, ultimately gives birth to the endeavor to make things realistic. A video game like CCG, in short, provides us with the necessary epistemological access to a reality in which we have never lived.<sup>75</sup>

The act of setting up a base, making decisions as to whether to first build tanks or train infantry, and determining the best strategy to defeat our opponent or meet the challenge allows for a degree of freedom. Immediately we must avoid falling into the pitfall that CCG offers free range over a situation. Each mission's objectives are clear from the start and failure to meet them only results in an inability to move the overall narrative forward. But how she gets from the beginning to the end of the mission is largely up to the player. The many decisions that go into successfully finishing a mission are more or less arbitrary. This presents an experimental space. A player may, for instance, try to achieve the objectives, while minimizing the civilian casualties. Instead of building a swarm of tanks and having them plough through villagers and structures, using a gentler hand can also complete missions. Although it is possible to continue training infantry as long as funds continue to come in, a player may elect to minimize the loss of human life, thereby committing oneself to the use of less force and more tact. These decisions are the game's invitation to explore its scenarios. And often CCG offers more

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<sup>75</sup> A suitable quote here is Alfred E. Housman's "*I, a stranger and afraid, in a world I never made.*" But it serves absolutely no analytical purpose. None.

than one way to complete a mission. Mid-way through *The Dragon Awakes*, the Chinese faction can confront the GLA forces head first with tanks, send infantry through a narrow mountain pass, or both. Varying solutions to the same problem allows replaying the game and subsequently give the player a sense of control. This agency is an essential component in exploring simulated narratives. Succinctly, CCG's narrative economy enables players to investigate a real-life abstraction through the lens of a fictional universe.

Thus far, this investigation has focused exclusively on the official version of CCG. But in addition to the game's software, the CD-ROM also contains a program editor, which can be used to create maps. Since a large part of the game's aesthetic and game mechanical structure is arbitrary, and can easily be modified, players can create scenarios, too.

## CHAPTER 8: MODS & MESSAGE BOARDS

*i once had an idea to make a mission based on Iraq, where the human player would control some workers and dozers trying to rebuild Baghdad whilst the Americans and various militia groups blew up the city. I also have a half finished single player mission based loosely on the Khuzestan Gambit (google it) where the player plays as America fighting from Iraq and has to conquer the Khuzestan oil fields from Iran and plant evidence of banned nuclear weapons in Iran.*

-- [anonymous], [www.deezire.net](http://www.deezire.net), 7/10/2008

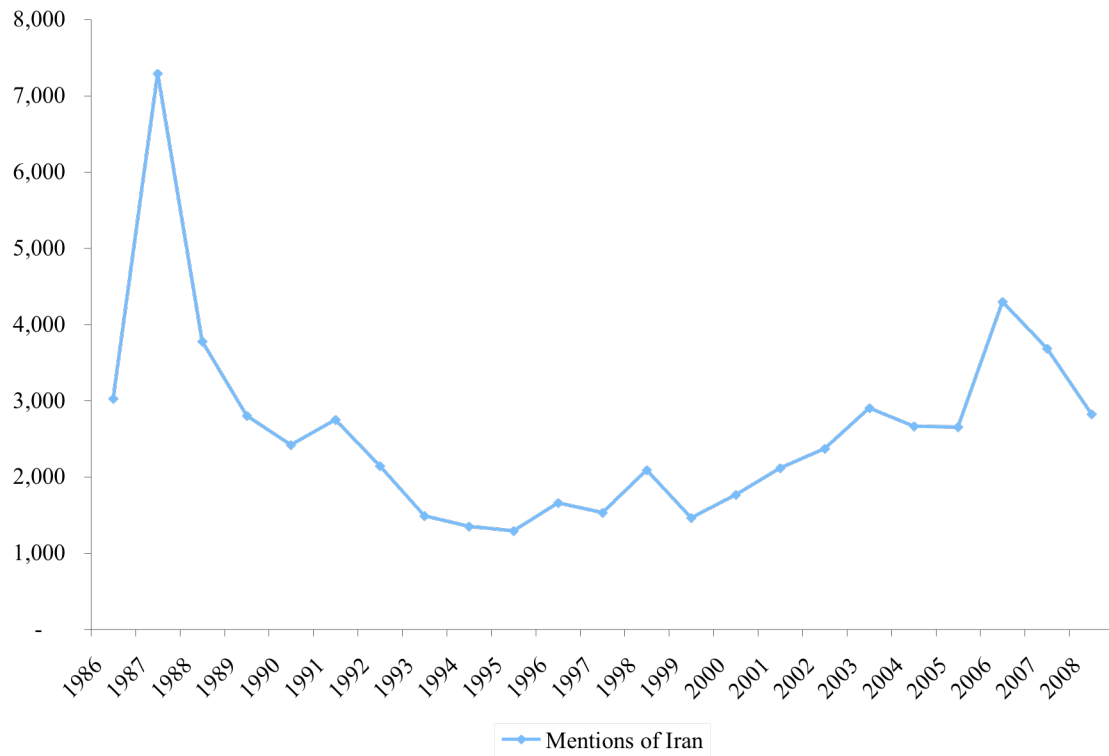
### I. Introduction

In order to answer the question whether or not people's ideas and opinions inform their game play, one must first establish how people feel about something. The previous section described how CCG speaks about contemporary military conflict, both through its game mechanics and narrative economy. CCG focuses on the current war in Iraq and its fallout in two ways: implicitly (e.g. the use of suicide bombers) and explicitly (e.g. the use of real-life names and place). In this section I establish if and to what extent CCG modders employ the game's software architecture to make statements about this real-life conflict. Specifically, I assess how CCG gamers feel about Iran by doing an analysis of message board posts, and compare this with those instances when Iran appears in user-created maps and mods. If we accept the logic of an informational model of communication (see Chapter 2), then it follows that modders will build mods that make clear statements about a particular topic.

As obvious from the previous chapter, Iran is not part of the official CCG release. Its presence in maps and mods is therefore entirely the result of modders introducing it into the game. My decision to center this part of the research on Iran has two reasons. Firstly, it seemed to me that during the War in Iraq an increasing number of news reports

began criticizing Iran more openly and frequently. Although I did not explore this thesis in great detail, a simple observation of the number of times that Iran is mentioned in two big newspapers shows the following.

**Graph 9: Mentions of “Iran” in NY Times and Washington Post from 1986 – 2008**



Clearly, since 1987, the number of times that the New York Times and Washington Post mentioned Iran has initially declined, but afterwards slowly increased again since 1999.

Secondly, for practical reasons it is impossible to do a basic Boolean search (explained further on) on the “U.S.,” “Iraq” or “China” because they are all part of the original game. This would yield a disproportional amount of false positives, thereby making the effort unnecessarily arduous. In looking for a suitable candidate I performed a search of various countries within the total sample. Iran gave the biggest number of hits: 1,714, which is substantially more than the second runner up, Israel, which yielded 597. As a third candidate, Turkey appeared 350 times in the sample, followed by North Korea

(197), Lebanon (153), Saudi Arabia (152), Syria (120), and Kuwait (69). Based on these results, I determined that Iran was the most suitable candidate.

For purposes of this study, it is safe to assume that few of those involved have any first-hand experience of Iran. But before answering how user-created scenarios depict Iran, both as part of the overall narrative economy and game mechanically, I will first explain a bit more about online message boards.

## **II. Online Message Board Analysis**

Modders make grateful use of the Internet to produce and distribute their creations. A host of online discussion boards, instant messenger programs and websites provide information on how to create maps and missions, and ways to make them available to others. Gamers congregate online to talk about the latest installment of a game, look for cheats, and exchange game play experiences. Long before the Internet, Huizinga already observed that play provides an important foundation for social interaction. (1935) And, similarly, contemporary gamers go online to connect with others who share their favorite form of play.

Internet-based communities offer a great advantage for social scientists: it is much easier to study them than their offline counterparts. For one, communicative exchange that takes place on message boards, news groups, blogs and their ilk are asynchronous. Members post messages for each other and can carry on a collective dialogue without everyone having to be at the same place, at the same time. People go to a central online location, read up on each other's postings and contribute to the conversation. Discussions are stored on servers and are available independent of a person's, or a researcher's, time zone or location. In addition, this type of communication facilitates intercourse between geographically dispersed people. Often, common interests are not bound by national,

proprietary or legal boundaries. And since this type of information is generally publicly available, it is much easier, and cheaper, for doctoral students to use them for research.

The first primary source is a collection of 3,850,409 posts, compiled from 29 online message boards centered on CCG and ZH. Cross-referencing a Google search for the key words “Command & Conquer” and “mods” with the requirement that a site had to host an online forum in order to be included determined a final list of 29 sites. Following, I instructed the commercial market research company Nielsen Online to collect the message board posts, using their proprietary technology. Accessing and searching each individual site manually is incredibly time-consuming.<sup>76</sup> To maintain the integrity of the data, I obviously had no hand in the actual download nor did the person who performed this part of the data collection have any notion of the nature of my research or my intended keyword searches. I therefore feel confident that the current data set is sufficient to warrant a modest degree of relevance.

The total data set spans a period of 25 months: from January 1, 2007 to January 31, 2009.<sup>77</sup> These dates were established somewhat arbitrarily, due to technical limitations. While I have no doubt that a sample that spreads three decades will offer a greater detail, the ability to harvest data in this manner is still in its infancy, and the current data set is larger than those used in other contemporary studies. The closest I could find was a study titled “*Is All That Talk Just Noise,*” by Antweiler and Frank, who take on a data set of “more than 1.5 million messages.” They admit it is “far too many to interpret manually,” and consequently apply the Naïve Bayes algorithm, a method

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<sup>76</sup> Although other (game) scholars have built their own technologies to, literally, suck the data down from the Internet, I am unfortunately not very good at building software tools. Related to my own research is for instance John Kelly’s “Morningside Analytics,” which collects in- and out-bound connections between weblogs. More game-centered is the automated analysis performed by Ducheneaut, e.a. which facilitates a quantitative research approach to the phenomenon of Massive Multiplayer Online Role Playing Games. Although there exist severe limitations to building a software tool specifically designed to automate a data collection process, I believe its quantitative strength offers a natural entry point into a large-scale, digital phenomenon.

<sup>77</sup> Except where noted.

originating in computational linguistics to scale their work to a more digestible size.

(2004: 1264) Looking only for a single keyword (“Iran”) makes the process easier to manage.

I recorded a total of 218,273 users. But since many are likely to maintain membership in more than one community, the number of unique users is probably much lower. Identifying individual users on these message boards, however, lies beyond the boundaries of this project, because the opinions of a single person do not allow making generalized claims about a particular group.

**Table 12: Total Data Set for CCG-related Message Boards**

URL	Number of Messages	Number of Authors	Avg. Number of Message/User	First Date	Last Date
1 <a href="http://forums.ea.com">http://forums.ea.com</a>	1,753,442	158,046	11	1/1/07	1/31/09
2 <a href="http://www.united-forum.de">http://www.united-forum.de</a>	506,318	7,421	68	1/1/07	1/31/09
3 <a href="http://www.cncreneclips.com">http://www.cncreneclips.com</a>	343,114	2,492	138	1/1/07	1/31/09
4 <a href="http://strike-team.net">http://strike-team.net</a>	280,667	7,556	37	1/1/07	1/31/09
5 <a href="http://www.hqboard.net">http://www.hqboard.net</a>	155,815	5,035	31	1/1/07	1/31/09
6 <a href="http://forums.revora.net">http://forums.revora.net</a>	134,318	4,017	33	1/1/07	5/27/08
7 <a href="http://www.renegadeforums.com">http://www.renegadeforums.com</a>	98,140	2,671	37	1/1/07	1/31/09
8 <a href="http://www.cncforen.de">http://www.cncforen.de</a>	91,567	2,422	38	1/1/07	1/31/09
9 <a href="http://www.forenf7c-network.com">http://www.forenf7c-network.com</a>	87,916	16,507	5	1/1/07	4/30/08
10 <a href="http://www.cnc-addict.com">http://www.cnc-addict.com</a>	71,143	315	226	1/1/07	7/29/08
11 <a href="http://www.apathbeyond.com">http://www.apathbeyond.com</a>	57,603	901	64	1/1/07	7/4/08
12 <a href="http://forums.cncden.com">http://forums.cncden.com</a>	54,864	2,044	27	1/1/07	1/31/09
13 <a href="http://forums.cncnz.com">http://forums.cncnz.com</a>	46,936	1,087	43	1/1/07	1/31/09
14 <a href="http://www.timeofwar.com">http://www.timeofwar.com</a>	22,773	1,210	19	1/1/07	1/29/09
15 <a href="http://www.ppsite.com">http://www.ppsite.com</a>	21,630	1,060	20	1/3/07	1/31/09
16 <a href="http://www.cannis.net">http://www.cannis.net</a>	20,857	1,193	17	1/1/07	12/23/08
17 <a href="http://cncwarzone.com">http://cncwarzone.com</a>	20,793	403	52	1/1/07	4/27/08
18 <a href="http://www.derelictstudios.net">http://www.derelictstudios.net</a>	18,554	713	26	1/1/07	1/31/09
19 <a href="http://forums.freedomstudios.net">http://forums.freedomstudios.net</a>	12,802	251	51	1/1/07	1/30/09
20 <a href="http://www.cold-war-crisis.de">http://www.cold-war-crisis.de</a>	10,600	624	17	1/1/07	1/30/09
21 <a href="http://forums.slipstreamproductions.net">http://forums.slipstreamproductions.net</a>	8,303	258	32	1/1/07	1/31/09
22 <a href="http://screamingcricket.com">http://screamingcricket.com</a>	6,834	290	24	6/9/07	1/30/09
23 <a href="http://www.cncgeneralsworld.com">http://www.cncgeneralsworld.com</a>	6,228	472	13	1/12/07	7/30/08
24 <a href="http://www.thundermods.net">http://www.thundermods.net</a>	4,516	93	49	1/4/07	6/23/08
25 <a href="http://www.cncforums.com">http://www.cncforums.com</a>	3,817	287	13	1/1/07	1/30/09
26 <a href="http://www.deezire.net">http://www.deezire.net</a>	3,640	363	10	1/1/07	1/27/09
27 <a href="http://www.cnc-source.com">http://www.cnc-source.com</a>	3,430	349	10	1/1/07	1/25/09
28 <a href="http://cncmaps.net">http://cncmaps.net</a>	3,252	166	20	1/1/07	3/6/08
29 <a href="http://www.savagewar.co.uk">http://www.savagewar.co.uk</a>	537	27	20	1/1/07	3/14/08
<b>Total</b>	<b>3,850,409</b>	<b>218,273</b>	<b>40</b>		

Clearly, not every message board contributes equally to the overall data set. But since the study will focus on whether CCG gamers regard Iran in a positive or negative way, this does not provide an obstacle. These boards have in common is that they are populated by a group of people who all play CCG. Because this study does not explicitly look for differences between groups, their varying contributions to the data set are irrelevant. The biggest contributing message board, <http://forums.ea.com>, also has one of the lowest averages of message per user (11). This seems consistent with Antweiler and Frank's observation that many message board posts are merely isolated commentary: in "[m]ore than 40% of the messages are posted by people who only post a single message." (2004:1263)

The aforementioned search<sup>78</sup> for the keyword "Iran" for the entire period yielded 1,714 results. Of the 29 boards, only 25 made reference to Iran.

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<sup>78</sup> The sample was taken on Tuesday, February 3, 2009. To parse the data, BPSS uses Boolean logic. Popularly used by online search engines like Google, "Boolean accounts sort the textual units of a given body of text into categories that are defined by user-supplied Boolean expressions." (Krippendorf, 2004:269) Dividing a text into its separate elements, this type of search logic allows sorting texts according to whether or not they contain a particular word or sentence. The use of quotation marks delineates a single search term. Following a set of intuitive modifiers, called operators, such as "AND," "OR," and "NOT" allows parsing a large text for specific words and word groups. Krippendorf offers the following example: "[A] search for the words *alcohol* and *drugs* (which may appear singly, jointly, or not at all) in a collection of paragraphs defines two variables—mentioning alcohol or not and mentioning drugs or not—and in effect creates a cross-tabulation of these paragraphs. A Boolean account, once obtained, might be made more detailed; in this example, finer distinctions might be introduced among paragraphs mentioning the word *drugs* (e.g. illegal drugs, prescription drugs, over-the-counter drugs), thus expanding the variable *drugs*. One might also enlarge the cross-tabulation by adding other Boolean variables; in this example, such variables might include references to users, places, or treatments, which are logically independent from drugs and alcohol but most likely empirically related." (270) This allows for a great number of different searches: "drugs OR alcohol," "drugs AND alcohol," "drugs AND alcohol AND NOT treatment," and so on.

**Table 13: Occurrences of “Iran” on CCG Message Boards**

URL	Number of Messages Containing “Iran”	Number of Unique Authors
1 <a href="http://forums.revora.net">http://forums.revora.net</a>	417	75
2 <a href="http://www.derelectstudios.net">http://www.derelectstudios.net</a>	184	63
3 <a href="http://forums.ea.com">http://forums.ea.com</a>	162	116
4 <a href="http://www.renegadeforums.com">http://www.renegadeforums.com</a>	152	70
5 <a href="http://forums.slipstreamproductions.net">http://forums.slipstreamproductions.net</a>	118	19
6 <a href="http://www.united-forum.de">http://www.united-forum.de</a>	117	76
7 <a href="http://forums.cncden.com">http://forums.cncden.com</a>	113	63
8 <a href="http://www.cncreneclips.com">http://www.cncreneclips.com</a>	112	78
9 <a href="http://strike-team.net">http://strike-team.net</a>	83	53
10 <a href="http://www.cannis.net">http://www.cannis.net</a>	59	24
11 <a href="http://www.hqboard.net">http://www.hqboard.net</a>	53	28
12 <a href="http://www.timeofwar.com">http://www.timeofwar.com</a>	40	16
13 <a href="http://forums.cncnz.com">http://forums.cncnz.com</a>	35	20
14 <a href="http://www.ppmsite.com">http://www.ppmsite.com</a>	11	9
15 <a href="http://screamingcricket.com">http://screamingcricket.com</a>	9	8
16 <a href="http://www.cncforen.de">http://www.cncforen.de</a>	9	8
17 <a href="http://www.cnc-addict.com">http://www.cnc-addict.com</a>	9	7
18 <a href="http://www.forenf7c-network.com">http://www.forenf7c-network.com</a>	8	7
19 <a href="http://www.cold-war-crisis.de">http://www.cold-war-crisis.de</a>	6	5
20 <a href="http://forums.freedomstudios.net">http://forums.freedomstudios.net</a>	5	5
21 <a href="http://www.cnc-source.com">http://www.cnc-source.com</a>	3	3
22 <a href="http://www.deezire.net">http://www.deezire.net</a>	3	3
23 <a href="http://www.cncforums.com">http://www.cncforums.com</a>	3	2
24 <a href="http://www.cncgeneralsworld.com">http://www.cncgeneralsworld.com</a>	2	1
25 <a href="http://www.apathbeyond.com">http://www.apathbeyond.com</a>	1	1
<b>Total</b>	1,714	760

To avoid having to read all these messages, I took a random sample. Based on a population of 1,714, and assuming a confidence level of 95% and confidence interval of 5, my final sample consisted of 314 randomly selected message board posts. Following, I coded each of them for the following characteristics.

**Positive.** The author refers to Iran in an obvious, positive manner.

**Negative.** The author refers to Iran in an obvious, negative manner.

**No Opinion.** The author maintains neither negative or positive feelings toward Iran.

**Mixed.** The author mentions Iran in both a positive and negative way.

**Question.** The author does not express an explicit positive or negative opinion about Iran, and asks for information or other people’s opinion.

In addition to establishing sentiment, whenever available, I noted the topic of each message. For instance, does the author mention Iran in relation to international politics or its cuisine? The idea behind identifying a post's topic is that Iran may be mentioned in a positive manner, but that it makes a difference depending on the author's subject.

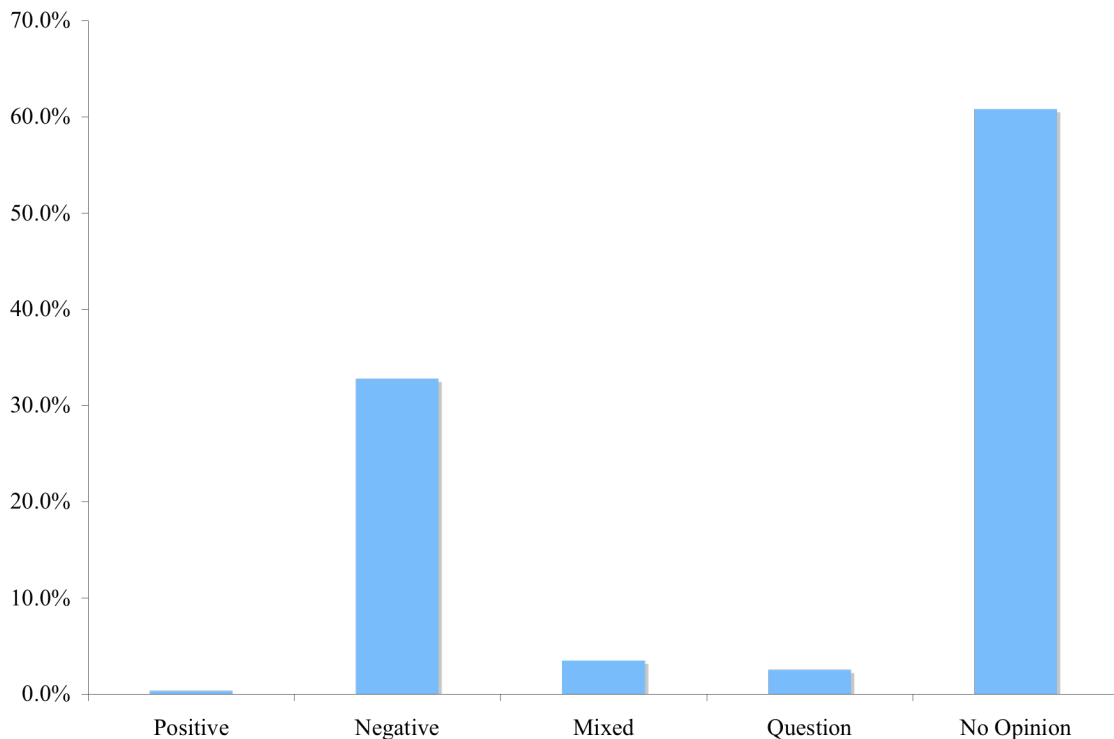
### III. Results<sup>79</sup>

*iran, iraq whats the difference?*  
-- [anonymous], [forums.revora.net](http://forums.revora.net), 12/12/2007

After coding a total of 314 messages, it is obvious that most of online discussion regarding Iran on these message boards falls in two categories: Negative (32.8%) and No Opinion (60.8%). Mixed and Questioning messages take a distant third and fourth place, with 3.5% and 2.5%, respectively. Positive messages are nearly absent with only 0.3%.

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<sup>79</sup> Disclaimer: all the following quotes are unedited and, as required by the IRB, anonymous. Quotes taken from sample include original writing, including typos and grammatical adventures. All translations by author.

**Graph 10: Value Statements about Iran from CCG-related Message Boards**

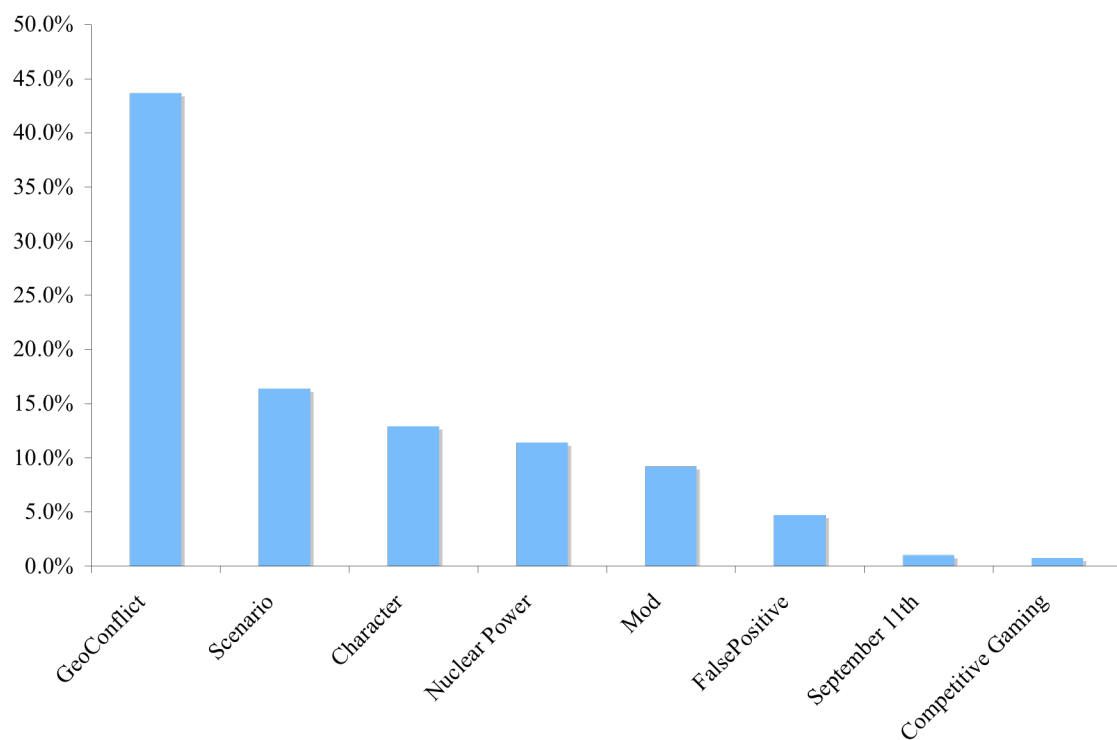
The reason that the name Iran occurs so often, but without a clear value statement, is that the country plays only a minor role in online discussions. Rather than speaking about Iran directly, discussants mention it in relation to something else. For example, one author named [respondent 1] asks: “salam do you live in Iran?” Elsewhere, [respondent 2] states: “John McCain will continue pushing the Middle East campaign into Iran. He stated it in his acceptance speech.” Iran, in other words, is not so much the topic of conversation but occurs in relation to another. On the other hand, messages that contain a more pronounced value statement also speak more directly about Iran. One example is [respondent 3]’s comment: “Viel spa&szlig; im Iran^^ bring ein paar Autobomben als Souvenir mit.” (Have fun in Iran. Bring back a few car bombs as souvenirs.)

With negative messages claiming almost a third of total discussion, it is necessary to ask about the context. Although simply stating that one hates Iran does count as a negative message, it leaves too much to the imagination as to why someone feels this

way. Establish a relation between real-life opinion and game content requires a sense of what CCG-gamers find particularly negative about Iran. However, a single comment can fall into several topical categories, because categories are not mutually exclusive.

I identified the following topics. By far the largest category in relation to which Iran comes up is geo-political conflict ('GeoConflict'), with 43.3%. A message falls into this category whenever it refers to Iran within the larger constellation of relationships with other countries, contemporary warfare and international politics.

**Graph 11: Topic Distribution of 'Iran' sample**



An example is [respondent 4]'s comment: "I am not joking but just so you know this, Obama said that he also "sees Iran as an enemy", he actually said something like that in one of his debates." Similarly, [respondent 5] states, "If McCain wins the election and invades Iran, does the USA get to yell "Monopoly!" and put up hotels across Iraq, Iran and Afghanistan?" Authors place Iran within a larger context of international politics.

In the case of Scenario, authors describe Iran as part of a fictional or future situation, whether conflict or otherwise. This topic occurred in 16.3% of the observations.

With regards to the U.S. elections, [respondent 6] argues,

If Obama comes,well,good luck US. The US is will have more problems than before with Bush In Iraq,terrorsts take goverment,Iran becomes nuclear power,US goes in isolationism,eu falls asunder.

Elsewhere, [respondent 7] hypothesizes:

If Israel bomb Iran, And vice versa, big whoop. Now if one of them tries to use a nuclear war head, Great Britain, US of America and Russia will pre-pare to invade.

This topic, in other words, plays out a string of (military) events that involve Iran.

The third observed category, Character, speaks to the nature of Iranian society and culture. Messages fall under this topic whenever the author talks about the habits, rituals and customs of Iranians. [respondent 8] , for example, informs us that:

Punishments in Saudi Arbia still resemble those from a 1000 years ago. Limbs being amputated, public lashings and public beheadings. And in Iran, you have public hangings for petty crimes (for example: being homosexual).

Similarly, [respondent 9] offers an evaluation of Iran with:

A “gift”? Hahaha. . . that’s funny. Iran is trying to pretend that they’re being “humanitarian” in releasing the British sailors. Obviously, there’s no war in sight now, but their “reasons” are bullshit. Those who use this to look at Iran in a good light are gullible.

A total of 12.8% of coded messages fell into this category.

Closely following, the topic of Iran as a nuclear power occurred in 11.3% of all messages, and includes all those remarks that refer to Iran being a nuclear power. Says

[respondent 10],

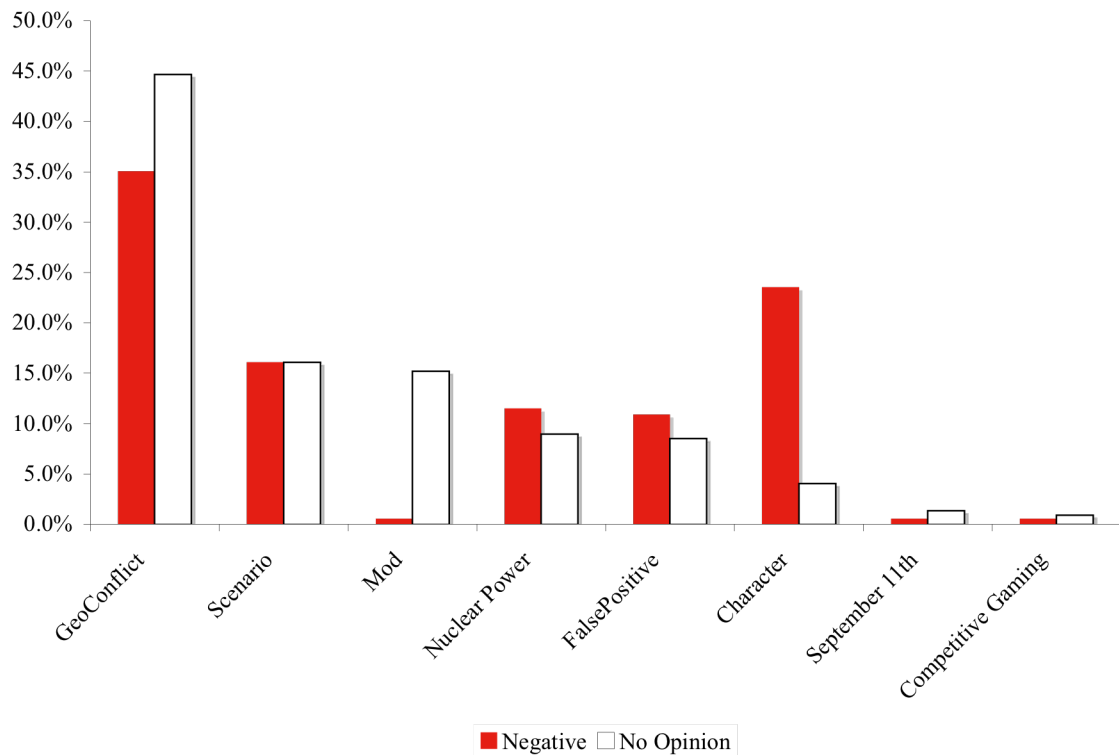
what about the Iranian nuclear program, or Iranian support for Islamic extremist militias and terrorist groups? While a nuclear-armed Iran might never use its nuclear weapons, it could use the threat of doing so to seriously hamper efforts to stop them from supporting extremist organizations.

The fourth main topical category is Mods (9.1%), which make reference to creating or playing a user-created mod or map involving Iran. Author [respondent 11], for example, states:

What would you like to see in the inevitable expansion pack? a) new faction (e. g. Yuri) b) sub- factions (e. g. Allied Steel Talon, Soviet's Marked of Romanov, Japan's Sushi Traveler-69) c) country (German, Italy, France, Iraq, Iran, Korea, Singapore. . . etc).

The remaining topics are FalsePositive (Iran occurs, but the author does not speak about Iran at all, 4.7%), September 11<sup>th</sup> (Iran is mentioned in relation to the attacks of September 11, 2001, 1.0%), and Competitive Gaming (Iran occurs as a team name, 0.7%).

Knowing both value judgment and topics, allows us to combine this information. When Iran comes up in a negative sense, this gives insight into why an author thinks so. Focused only on the two largest value categories, No Opinion and Negative, further parsing the data gives the following.

**Graph 12: Topic Distribution of ‘No Opinion’ and ‘Negative’ messages**

Iran occurs most often in relation to the topic of geo-political conflict (labeled ‘GeoConflict’). Of the messages coded as “No Opinion” 44.6% fall under this topic. An example is:

Reagan is the most asshole president USA has ever had. . maybe [sic] beaten by Bush dad and son. Funded Iraq against Iran at the same time it sold weapons to Iran. [respondent 12]

Iran comes up in relation to a larger political universe of politics but is not explicitly characterized as negative. This is the case, however, in 35.1% of all Negative messages.

Across the board the numbers are similar for both No Opinion and Negative message board posts. But two exceptions are the topics Mods and Character, either of which seem obvious. The former talks about incorporating Iran into user-created mods and maps, and, subsequently, does not address Iran. The latter speaks toward what the author thinks the nature of Iranian society to be like, and this comes up almost exclusively as something negative. According to [respondent 13], “Iran seems like a real rogue

country to me. I bet they don't give a shit about written words, such as peace-contracts and stuff." Similarly, [respondent 14] claims,

Eine Vergewaltigung wird in einigen islamischen Ländern als unehlicher Geschlechtsverkehr gesehen und mit einer Steinigung bestraft. Unter anderem im Irak, Iran, Pakistan oder auch in Saudiarabien." (Islamic countries see rape as infidelity and punish it by stoning. Among others in Iraq, Iran, Pakistan and in Saudi-Arabia.)

In summary, based on this sample, CCG gamers's view of Iran is overwhelming neutral or negative, but rarely positive or mixed. The country is predominantly mentioned in relation to a larger political environment and many hypothesize a likely play out of the situation. Also, a lot of comments speak about Iran getting involved in an escalation of the tension in the region ('Scenario') or otherwise being dragged into a large-scale conflict. Negative comments regarding Iran outnumber the neutral ones on the topic of being a nuclear power and regarding the nature the country's character.

#### **IV. Iran as featured in maps and mods**

After establishing how CCG gamers feel about Iran, I now turn my attention to how this country is portrayed in amateur-created game mods and maps. (For a detailed explanation of mods, please refer to "Modding.") Gamers generally attach a short text file (.txt) to their creation that offers additional information. It may, for instance, talk about the exact number of 'objects' that are included in the map, offer installation instructions or make mention of any friends that have helped. To better understand the realities to which CCG speaks according to its players, I manually coded a total of 1,511 of these accompanying text files.

After identifying three websites that repeatedly came up while searching for CCG-mods, I downloaded every single user-created map available. The three sites are:

1. **cannis.net** – Calling itself *Cannis Games Editing Network* (C-GEN), this site hosts a variety of mods and maps. But although it also houses modding projects for other games such as *World of Warcraft III*, it centers on the *Command & Conquer*-series. The site yielded 94 downloaded maps.
2. **cncgeneralsworld.com** – Hosting 159 maps makes this site the second largest contributor to the data set. With a crew of 18 people as its ‘staff,’ the site exclusively focuses on the *Generals*, *Zero Hour*, *C&C3*, *Kane’s Wrath* and *Red Alert 3* installments of the series.
3. **cncden.com** – With a total of 1,761 mods, this site provides the bulk of the data set. Organized by a prolific crew of mappers, CNCDen offers 232 maps created by its regular contributors and 1,496 by its large fan base.

Because downloading these files has to be done manually, I decided to stick to these three sites. This is not a random sample, as would be ideally the case, but a convenience sample. (See Krippendorf) Since a lot of modders and mappers make their work available on several sites, the sample eventually reached saturation. After collecting a total of 2,014 files, totaling approximately 566Mb of data, I cleaned up the data set by removing the double entries. Deleting 427 double entries from the sample left 1,587 downloaded files; 76 of these contained no text file, resulting in a total sample of 1,511 primary documents. This second primary data set contained the following instances, featuring Iran. The next section summarizes how each map and mod employs Iran within the game.

- A. **Maps** (names in **bold**, quotes in *italics*)
  - a. **Iraq** -- “*precise map of Iraq and its borders.*”

Providing game play for up to six players, the map *Iraq* places the game in a geographic representation of the Middle East. Game play revolves around Iraq's central position, stating, "The base in Baghdad [sic] is the most protected, however it is the most vulnerable since it's in the middle." Of the six countries bordering Iraq in actuality only five are present (Syria, Kuwait, Saudi Arabia, Jordan and Iran). Turkey is absent. Moreover, Iran is the second largest topography.

b. **The Middle East** -- "*designed like the middle east the map is not symmetrical.*"

Created for a six player online skirmish, each country (Egypt, Israel, Turkey, Saudi Arabia and Iran) "has [its] own strengths and weaknesses." In this scenario, Iran is presented as "a nuclear power with one nuclear missile. It is also very rich in oil." According to the text file the map is dated on September 11, 2006.

c. **Sudden Strike** -- "*The GLA has been setting up various cells in Tehr,,n [sic], Iran.*"

This map offers a representation of the capital of Iran, positioning the country as harboring GLA (the terrorist faction in C&C: Generals) "cells." In this single-player map, the objective is leveling the Iranian infrastructure, "destroy all gas, oil and water buildings... [and] powerplants that power the city."

d. **Bushehr: Operation Partisans' Challenge V.1.5** -- "*The Americans have invaded Iran...*"

Inspired by the BBC article, "*Iran Attack Debate Raises Nuclear Prospect*,"<sup>80</sup> GLA forces "only have a few buildings left in a small base and no room to build more, but they have some new secret weapons up their sleeve." The scenario takes place in the coastal city of Bushehr.

**Image 24: Preview Images of three Maps featuring Iran**



"Iraq"



"The Middle East"



"Bushehr: Operation Partisans"

Each scenario appropriates Iran for purposes of game play by placing military conflict within the country's borders. The maps connect the fictional universe of the game to the reality of the conflict in the Middle East by generating a life-like, geographically accurate, representation. However, when comparing the user-created maps to an actual map of the region, the ratio between the various countries' sizes is clearly skewed. In *Iraq*, Turkey is altogether absent from the scenario. Iran looms with a disproportionately large presence without explanation. (Why is Saudi Arabia not bigger instead, for example?) This gives the country a potentially more ominous representation than the others in the region.

<sup>80</sup> Paul Reynolds, "*Iran Attacks Debate Raises Nuclear Prospect*." BBC News, April 10, 2006. URL: [http://news.bbc.co.uk/2/hi/middle\\_east/4895212.stm](http://news.bbc.co.uk/2/hi/middle_east/4895212.stm) (last visited 05/29/08)

Irrespective of size, the consistent focus on geographical accuracy and other real-life artifacts (e.g. BBC article) that inform the creation of these maps likely serve to render these mental images more ‘true to life.’ Furthermore, all four maps position Iran as an active participant in the overall Middle Eastern conflict. On the one hand, the terror cells in *Sudden Strike* and nuclear threat in *Bushehr* justify the invasions of Iran. But on the other hand, none of these scenarios present a clear motivation for Iran’s involvement. This implies that Iran, regardless of any reasons, is seen to eventually and inevitably be part of the larger conflict. Or, as *The Middle East* phrases it: “Ultimately, only one country will emerge victorious in the Great Middle Eastern War.”

Next, I identified five mods that involved Iran in one way or another.

## B. **Mods**

### a. “Call To Arms”

The first mod expands the *CCG* universe of available factions by involving Arabistan (“former Saudi Arabia”), Syria, Egypt, Russia, the Ukraine and Iran in WWIII. Offering a detailed introduction as to how and why all these countries enter into this conflict, Iran is cast only in a supporting role. According to the text,

*“Iran was promised not to be attacked in exchange [sic] for economic and military cooperation and continued nuclear development with Russia.”*

In this way, Iran is effectively taken out of the main narrative, as the main Middle Eastern faction is the “United Arab Nation,” consisting of “Arabistan,” Syria and Egypt. But at the same time, this mod does imagine Iran as a nuclear power.

b. “Last Conflict”

According to its intro, it

*“brings a new war in the middle east in the year 2008, featuring sides on this war is Israel ,Iran and iraq . in one of the biggest clashes knowed [sic] to man.”*

Focused on reworking the original game engine, the mod aims to “recreate a realistic combat environment.” What Iran’s role precisely is, remains unclear.

c. “Global Conflict”

Although the premise of this mod is to add Iraq as a playable faction, it claims to ultimately also feature Iran.<sup>81</sup> Without specifically narrowing down what its characteristics will be, the introduction explains that will “match the arsenal of respective countries and weapons that will be at countries’ disposal in the near future.”

d. “Tactical Warfare”

This total conversion mod for *C&C Tiberium Wars* takes place “10 years in the future and will be based on a large scale fictional conflict between several different countries.” Again Iran is one of the playable factions, in addition to “Russia, China, the North American Union, the European Union [...] and North Korea.” Although the narrative for Iran remains

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<sup>81</sup> The complete list is: “USA, EU, Russia, China, Iran and many other Middle Eastern and European countries.”

under wraps (“Classified”), “each side will have realism and will still feature a unique and realistic army based on the real life equivalent.”

e. “Operation: Restore Justice”

Basing Iran’s description on two separate introductions, the first premises that “the US is at war with Iran in an alternate reality.” Claiming “extremely realistic game play” its ultimate goal is “turn the original game into a modern war simulator.” The second introduction is somewhat more elaborate, stating it takes “place in Iran in the near future. The basic premise is that Iran is at war with the United States and Israel.”

Summarizing, these five mods conjure the following picture regarding Iran. First, Iran is, again, imagined as a nuclear power, through a “continued nuclear development with Russia. (*Call To Arms*) Although the mods remain unclear about Iran’s additional characteristics, they all aspire to be “extremely realistic” (*Restore Justice*). Whereas the maps from section II attempted to establish a connection between the game universe and the Middle Eastern conflict through geographical accuracy, the mods focus on game mechanical realism.

Secondly, Iran’s involvement on a large-scale military conflict appears highly likely, but not inevitable. Only in *Call To Arms* does the country merely play a supporting role to the main narrative. Nonetheless, whether centrally or peripherally involved, Iran remains closely associated with active combat in that region, especially in the time to come (*Last Conflict; Tactical Warfare*).

## V. Conclusion

Earlier I defined communication as an act that takes place within and because of particular environmental conditions. With CCG's original storyline so explicitly related to the War in Iraq, I had hoped to find a strong, obvious connection between the way CCG gamers discuss Iran online, and the way they feature this country in their game play. I initially assumed that modding would be an editorial practice, and expected modders to use the game mechanical universe of CCG to comment on Iran and its perceived role in the War in Iraq. But, quite frankly, the numbers are tiny. Out of more than three million message board posts, only 1,200 or so mentioned Iran at all, and out of 1,500 maps, only a handful featured the country.

Certainly, there appears to be a consistency between the way these gamers feel about Iran and the way in which they portray the country in their game play. The message board analysis shows that CCG gamers feel predominantly neutral or negative about Iran, and discuss the country mostly with regards to its part within a larger geo-political conflict, likely scenarios, and its nuclear capabilities. Maps and mods created by this community featuring Iran play out the scenario of the country being somehow dragged into conflict, and deploy it as a nuclear power.

But this does not change the small scale on which this takes place. And so rather than focusing our attention on a single country as the constant in both the modders' opinions and creations, perhaps I need to take a step back and look at the larger picture. The small scale I observed suggests that modders abandon the original story's universe in favor of other topics, characters, and ideas. This is consistent with Jenkins' observations regarding the implicit homosexual relationship between two Star Trek characters and the pornographic interpretation of Star Wars. (1992) In his example, fans "poached" a commercial text and explored alternative storylines. (See "Modding") But because this

only concerns a few examples, it does not allow making a general statement about the larger group. One explanation could be that message boards predominantly serve only a single purpose (e.g. tips and tricks on modding) and therefore contain limited room for other topics of discussion. Despite CCG's strong implications regarding the larger, real-world conflict in the Middle East, message board participants spent very little time reflecting on Iran. This leads me to conclude that in this case, while keeping Williams' text *Bridging the Methodological Divide in Game Research* in mind, a quantitative message board analysis does not allow for a credible generalization. Consequently, although the game's narrative does use real-world protagonists and events, modding is not a discursive practice that builds on the original game's narrative universe.

Despite these somewhat disappointing results, modding remains a common practice. The question follows: what *does* inform the practice of modding? Obviously, considering the availability of CCG mods, there has to exist some observable consistency that can give greater insight into what motivates and informs game play. To this end, the following chapter, *The Games People Make*, identifies and describes recurrent communalities found in CCG mods.

## CHAPTER 9: THE GAMES PEOPLE MAKE

*To create this chart I took as a starting point real facts, (I cannot however guarantee to you are authenticity).*

*In 1988 the Iraqi government, directed by Saddam Hussein which had developed a new weapon: the famous BOMB CARBUNCLE, had to decide to send their first model on the village of Alabja in territory of Iraqi Kurdistan, previously the Kurdish people this rebelled vis-a-vis with the Iraqi mode, which had made more than 5000 civil dead.*

*It is not because I wanted to create this scenario that this act approves, It is right because I like to assemble stories which really occurred, The Iraqi army does not have a weapon bacteriological and chemical because they did not carry out suffisament tests yet If the enemies Na not of tank it is because Kurdistan officially does not produce any, I wanted that this chart remains most faithful possible to the conflict in question, It is all the same of a difficulty to the top of the average, good luck.*

-- Iraqi Genocide, 2003

### I. Patterns in User-Generated Content

After an in-depth description of CCG's narrative economy and its game mechanical universe, and the way modders inform game play with personal beliefs, this chapter identifies common patterns within user-generated content created for CCG. The driving question for the following chapter is: if you have the freedom to create anything, what do you make?

When I initially looked into mods as a unit of analysis I noticed that modders generally (but not always) attach a short text file, which contains additional information about their creation. This varies from a description of the various software tools the creator used to a short narrative introduction that explains the map's setting to installation instructions. Since creating a map can take anywhere between a few hours to several days or even weeks, modders sometimes also include a brief motivation, explaining why they created the map, or what they are trying to achieve by doing so. Such a text file is, in essence, a meta-text, because it is a text about the 'text' of the map. Consequently, these

accompanying files are a perfect point of entry to figure out how modders establish communication through game play, and are the focal point of this chapter.

In this chapter I aggregate and analyze the characteristics of text files that accompany user-created maps for CCG. This effort serves as the next logic step after trying to correlate CCG gamers' opinions and their modding efforts on a very specific topic (Iran). Here, instead of looking at a single detail's occurrence throughout an observable set of mods and maps, I look a large collection of user-created maps and identify recurrent aspects.

Before I dive into the details, allow me to draw out a few of my expectations. For one, I foresee that modders will remain mostly anonymous. Online interaction facilitates a high degree of anonymity, which is especially useful when making bold, polarized statements in an online group discussion. Obviously this is not a study on digital identities. Rather I regard anonymity to relate to the sometimes-illegal nature of modding, or at least the seemingly inconsistent response copyright owners may have. One telling comparison is the difference in attitude shown by the companies LucasArts and Microsoft in dealing with the creation of a mod based on their respective intellectual property. The former, known for its *StarWars*-universe, has a lot of experience with fans wanting to create their own interpretation (see Jenkins 1992). The latter, owner of the *Halo*-franchise, however, does not. Subsequently, the mods that were based on these two narratives suffered different fates. After three years into its development, Microsoft suddenly ordered *Halogen*, a fan-created mod inspired by *Halo* and CCG, to be shut down. According to the modders' site, Microsoft and Bungie told them "to stop all work and remove all *Halo* content from the mod," and threatened to sue for copyright infringement. On the contrary, the *StarWars*-inspired *Imperial Assault*, merely carries a small disclaimer on its site stating that the mod is not connected to either LucasArts or

EA, but is not hindered otherwise. Such an inconsistency in the approach of big companies to fan-created work makes modding a theoretical liability. If you're going to spend a substantial portion of your time creating a mod and then distribute it online, you want to at least elude any legal repercussions. This, I believe, instills a high degree of anonymity among modders.

Secondly, and relatedly, I expect modders to disregard copyright and ownership of intellectual property. Although in the *Halogen* case described above the modders ceased their activities, the fact that the *Halo* universe is Microsoft's property did not, at least not initially, present a reason to ask for permission. This is consistent with Postigo's observation (2008: 68) that fans tend to argue that their appreciation of the narrative universe grants them a degree of ownership in spite of legal regulations. (see also Jenkins 1992, 2006) The raw materials modders use—models, software architecture, visuals, storylines—belong to someone else. Consequently, I expect my findings to indicate that modders resist copyright law.

Thirdly, in the context of creating one's own maps, I predict a substantial number of maps to be true to life. By this I refer to the use of real-life names, places and people in an attempt to relate the map to a real-life situation. Following my theorizing that video games emerge in response to the increasingly cacophonous media environment, I expect modders to play out scenarios that draw on news reports and television. As most of the events that affect our lives take place off-camera, modding seems as a perfect venue to make some of these occurrences concrete. In a different context, the mod *9-11 Survivor*<sup>82</sup> positions the player in the role of a person in the Twin Towers, moments after the attacks. There are varying starting positions: some of these have a chance of survival,

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<sup>82</sup> This mod was built on the Unreal Engine, a software architecture that revolves around first and third person perspectives. Quite different, in other words, from the genre and game play of CCG.

some do not. In a New York Times article, the three art-class students that created the mod explain their desire

to reinterpret a historic moment by transplanting it to the medium with which they were most familiar: computer games. Inured to the distant televised images of Sept. 11, they hoped an immersive, interactive version would restore an immediacy to the day's horrors. Mr. Cole, who examined photographs to reconstruct the scene, said, "The more I delved into it, the more personal it became." (Mirapaul 2003)

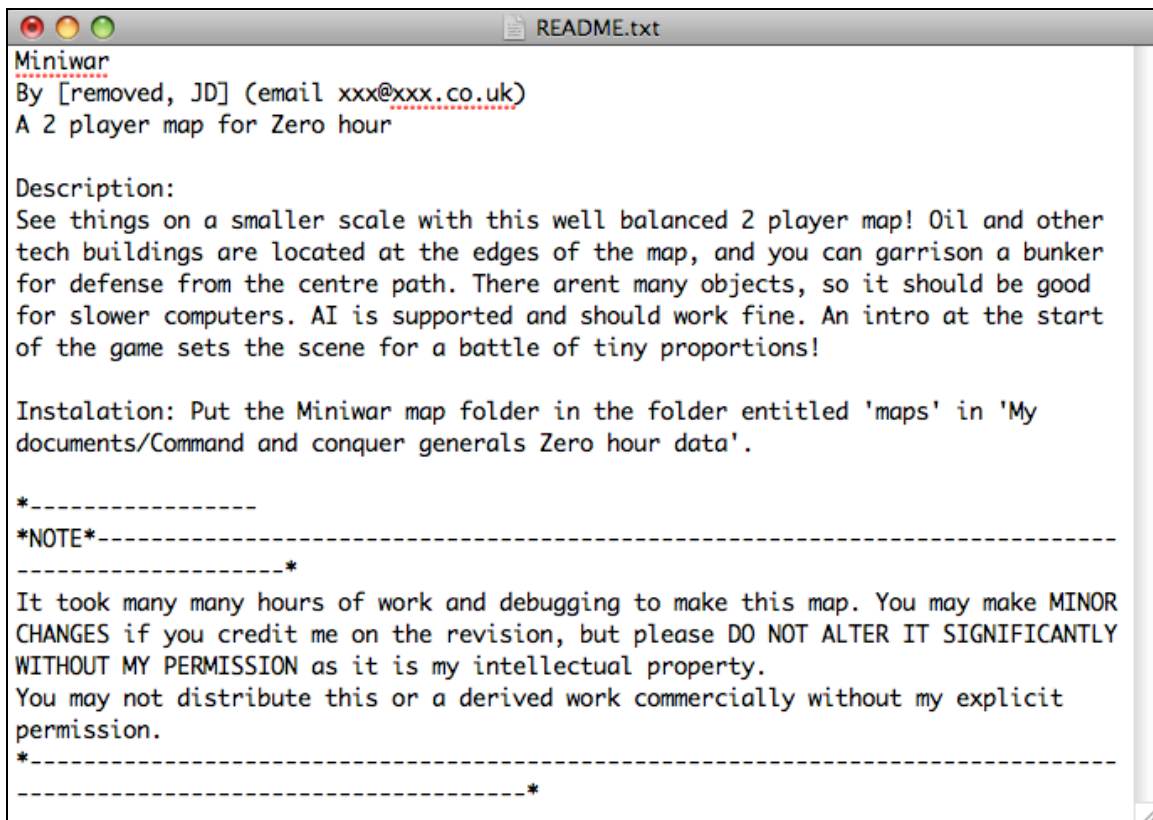
Along these same lines, I expect CCG modders to create scenarios to make particular events tangible.

There are a few other, smaller predictions I could make here. But rather than continuing to dominate the conversation I will—following briefly outline the study—give the CCG modding community a chance to speak for itself.

## **II. Methodology**

In summary, I manually coded a total of 1,511 text files that accompanied maps created by gamers. The following shows an example of what these text files look like.

Image 25: Example of .txt File



```

Miniwar
By [removed, JD] (email xxx@xxx.co.uk)
A 2 player map for Zero hour

Description:
See things on a smaller scale with this well balanced 2 player map! Oil and other
tech buildings are located at the edges of the map, and you can garrison a bunker
for defense from the centre path. There arent many objects, so it should be good
for slower computers. AI is supported and should work fine. An intro at the start
of the game sets the scene for a battle of tiny proportions!

Instalation: Put the Miniwar map folder in the folder entitled 'maps' in 'My
documents/Command and conquer generals Zero hour data'.

*-----
*NOTE*-----
-----*
It took many many hours of work and debugging to make this map. You may make MINOR
CHANGES if you credit me on the revision, but please DO NOT ALTER IT SIGNIFICANTLY
WITHOUT MY PERMISSION as it is my intellectual property.
You may not distribute this or a derived work commercially without my explicit
permission.
*-----
-----*

```

While reading each file individually, I looked for the presence or absence of the following characteristics, and added additional features that came up during the process. I noticed, for instance, that many text files mention the size of the map, which I had not anticipated and subsequently incorporated. All files were coded for the following qualities, followed by an aggregation.

Table 14: List of Qualities

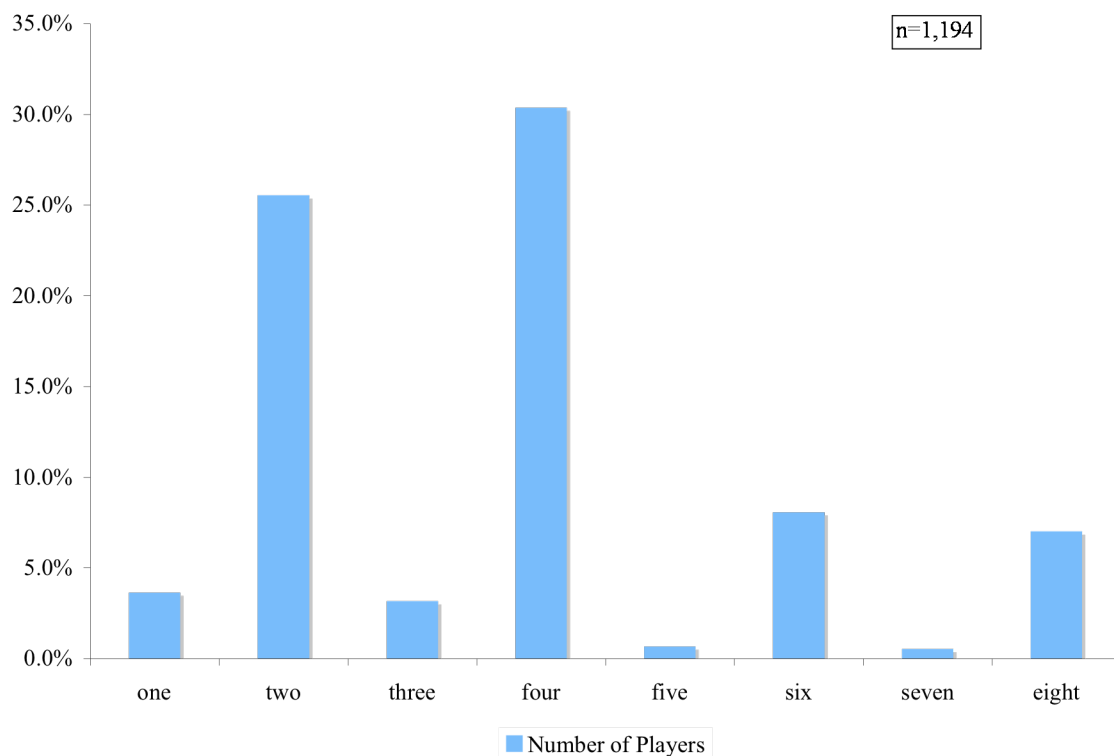
Characteristic	Description
<i>Name</i>	The name of the map according to the creator. If not apparent from the .txt file then name was taken from Folder View. <sup>83</sup> Example: “Forrest Battle.”
<i>Creator (nick)</i>	The name of the map creator or author, if present. Example: “the G.o.a.T.”
<i>Real Name</i>	The actual name, or likely name, of the creator, if present.
<i>E-mail</i>	E-mail addresses of the creator, if present. Example: “the_GoaT@advalvas.be”
<i>Site</i>	Any website addresses (URLs) mentioned. Example:

<sup>83</sup> “Folder View” refers to the visual organization of files on a standard Mac operating system. This was used to supplement the information found in the .txt file where necessary.

	“CNCDEN.com”
<i>Date</i>	The date on which the map was created or released according to the .txt file. If not available, the creation date for the actual .txt file was recorded. If there is no .txt file altogether but the map is part of a collection, then the creation date of the .tga file (a system file necessary to play) has been recorded. N.B. For trending purposes, different maps by the same creator and the same date were counted as only one. It is likely that mappers create several maps over a period of time, and then finalize and attach a .txt file on the same day, right before making them publicly available. Example: a large number by ‘sgtmyers88’ are all dated on 9/17/05.
<i>C&amp;C Installment</i>	The corresponding edition of the C&C series for which the mod was created: <i>Generals</i> (GE); <i>Zero Hour</i> (ZH), <i>Yuri’s Revenge</i> (YR), <i>Red Alert</i> (RA), <i>Red Alert 2</i> (RA2), <i>Tiberian War/C&amp;C3</i> (TW), and <i>Kane’s Wrath</i> (KW)
<i>Number of Players</i> <i>Game Play Mode</i>	The maximum number of starting positions available on the map. The available mode of game play: <i>Single Player</i> (player vs. environment), <i>Skirmish</i> (player vs. computer), <i>Multiplayer</i> (player vs. player) or <i>Multiplayer and Skirmish</i> (both player vs. player and player vs. computer).
<i>Size</i>	The map’s dimensions.
<i>Editor Used</i>	Any editing program(s) that the author mentions as part of creating the map. Example: Worldbuilder.
<i>Narrative Intro</i>	The presence/absence of a narrative introduction that sets the stage, or addresses the reader as “General,” etc. Example: “Welcome General...”
<i>Defined Objectives</i>	Presence/absence of clearly defined, necessary objectives (win-conditions). Example: “You must destroy the nuclear power plant.”
<i>Based on real-life place</i>	A real-life place or event that inspired the map, or which it seeks to represent in any way. Example: “This map is based on the raid on Normandy on D-Day.”
<i>Superweapons</i>	The map explicitly disables, or modifies the use of superweapons. Example: “GLA Scud Storm and Ion Cannon have been disabled.”
<i>Remake/Reference</i>	The map makes reference to or presents a remake of an earlier map, either from EA or another modder. Example: “This map is a remake of the map <i>Hammer &amp; Sickle</i> for Red Alert 2.”
<i>Map Details</i>	The text file describes any of the elements the player will encounter on the map. Example: “There are six oil derricks in the middle.”
<i>Installation Instructions</i>	The text file includes instructions on how to properly install the map. Example: “Copy the file to the following location on your computer...”
<i>Copyright</i>	The text file makes explicit mention of any type of copyright or claim of ownership or requires the explicit permission of the creator to modify or distribute the map online. This also includes the “©” symbol. Example: “This level is copyrighted by ‘the G.o.a.T’ 2004-2005.”
<i>Additional</i>	Anything else noteworthy.

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**Graph 13: Distribution of Number of Players**

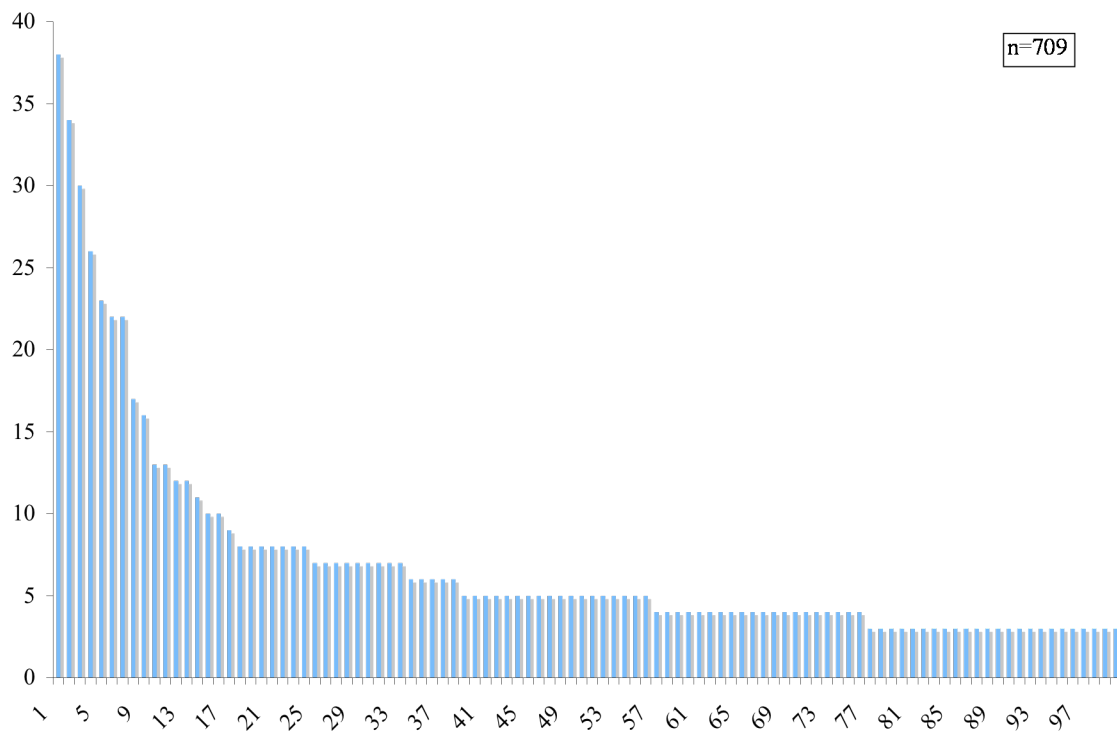
Four-player (459) and two-player maps (386) are the most common, and outnumber six- (122) and eight-player (106) maps almost four to one. Nonetheless, the latter two combined accounts for 15.1%, which is still five percent higher than the combined total of odd-numbered maps (10.1%). Overall, for every odd map there are nine even maps.

In addition, among the maps designed for an odd number of players, single player game play dominates, with 55. Closely following are 3-player maps (48), but five- and seven-player maps are fewer, 10 and 8 respectively.

*Game Play Mode.* In 846 instances, or 56.0% of the total sample, creators specified the available game play mode. The combination of Skirmish and Multiplayer game play is by far the most popular: 70.8%. A distant second is Multiplayer with 19.0%, followed by Single (6.6%) and Skirmish (3.5%).

*Maps.* On average an individual gamer created 2.27 maps. When looking at the distribution, however, it is clear that minority produces the bulk of gamer-created maps. The top ten created 241 maps, or about 24 per person, more than ten times the average. The graph below shows how many maps each individual in the top 100 created.

**Graph 14: Top 100 Mappers Organized by Number of Maps Created**



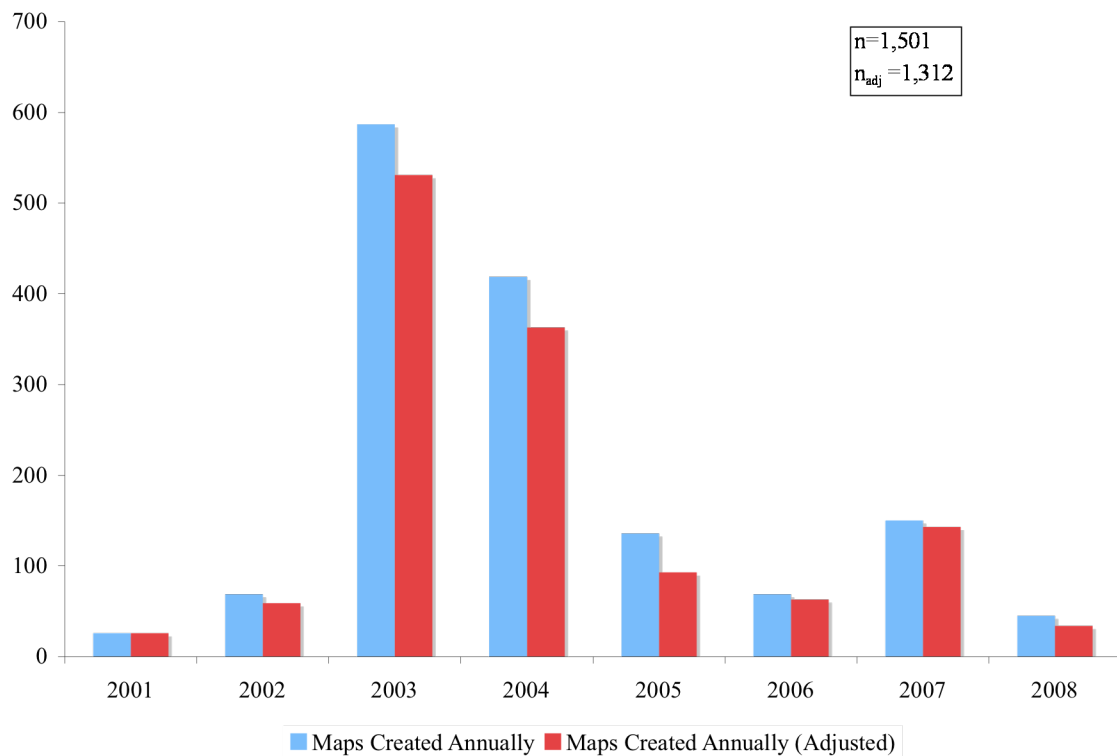
The most prolific mapper created 38 maps total, followed by the number two who authored 34 and number three with 30. By far most people create only one single map (377). Out of the entire group of 599 modders, only 222 (37.1%) created two or more maps.

*Map Size.* Notated as a ‘length x width,’ the size of a map appeared in 397 cases. Organized in groups with a maximum square footage of 100x100, 200x200, 300x300, 400x400, and 500x500, gives the following.

**Table 16: Map Size Distribution**<sup>86</sup>

size	number
up to 100x100	52
100x100 - 200x200	56
200x200 - 300x300	114
300x300 - 400x400	104
400x400+	66

*Dates.* For all *Command & Conquer* installments combined, 2003 and 2004 saw the release of most user-created maps of this sample. With 587 and 419, these two years account for almost two-thirds of the entire data set. Adjusting for multiple maps by the same author within the same month (to avoid over-counting in the case someone makes several maps available at once) slightly decreases the number ( $n_{adj}=1,312$ ). Overall distribution over time stays the same.

**Graph 15: Created Maps Organized by Year**

<sup>86</sup> Two observations: first, it should be noted that in earlier version of Worldbuilder (the software editor used to create maps) only supported maps up to 500x500. Its current incarnation offers a 50% increase and thus supports 750x750. Second, according to the manual, the relative size of a single square within the game world corresponds with ten feet in reality.

*Command & Conquer Installment.* In a total of 1,148 observations (76.0% of the entire data set), the combined 908 mods for *Generals* and its expansion *Zero Hour* presented the largest group with 79.0 percent. *Tiberium War* is distant third with only 152 (13.2%), and the older editions *Red Alert*, *Red Alert 2* and *Yuri's Revenge* accounted for only 17 (7.6%).

*Countries.* A total of 146 text files (9.7%) stated explicitly that their accompanying maps represented a real-world geography. Organized by country gives the following table.

**Table 17: Real-Life Locations Used in User-Created Maps**

Geography	Counted	Geography	Counted	Geography	Counted	Geography	Counted
USA	17	Australia	2	Canada	1	Oman	1
Iraq	14	Kazakhstan	2	Columbia	1	Persian Gulf	1
Russia	9	North Pole	2	Cuba	1	Philippines	1
China	7	Poland	2	Czech Republic	1	Pompei	1
Europe	7	Saudi Arabia	2	Florida	1	Romania	1
France	7	Albania	1	Gaza Strip	1	Scotland	1
Germany	5	Argentina	1	Greece	1	Somalia	1
Afghanistan	4	Asia	1	Greenland	1	South Africa	1
Africa	4	Atlantis	1	Guantanamo Bay	1	South Korea	1
Iran	4	Badlands	1	Holland	1	Sweden	1
Egypt	3	Balkan	1	Israel	1	Switzerland	1
Italy	3	Bermuda Triangle	1	Laos	1	Ukraine	1
Japan	3	Bosnia	1	Middle East	1		
North Korea	3	Brasil	1	Mongolia	1		
UK	3	Bulgaria	1	Moon	1		

America (12.1%) and Iraq (10.0%) dominate the list of countries in which modders situate their homemade scenarios. Taken together, one if every five fan-made maps is set in either the U.S. or Iraq. Russia follows as a distant third (6.4%) with China, Europe and France closely behind it. The subject from the previous chapter, Iran, occurs only four times. And the bulk of real world places that make an appearance do so only once.

*Copyright.* In 452 cases did the author request users to adhere to some form of copyright. Varying from insisting on being asked permission for distribution to giving carte blanche to edit and modify their work, a total of 152 unique mappers included such a notice in the accompanying text files.

### III. Analysis

I originally set out to answer the question, “if you can create anything, what do you create?” because I expected user-created content to both be radically different from the off-the-shelf narrative, and to speak more explicitly toward the topic it seems to address. To this end, I anticipated a substantial number of maps with a specific setting, meant as an invitation for people explore a simulation of real-life events. But with barely 10% of all maps even assigned to a specific place, this hypothesis has to be rejected.

I figured modding to be a practice geared toward making abstract ideas and events concrete. In the initial stages of my research I had come across several maps like *Escape from Guantanamo Bay* and *Korea Demilitarized Zone (Korea DMZ)* that alluded to this.

The creator of the former, for example, admits:

This probably goes without saying, (but!) I have never seen ‘Camp Delta’ or even Guantanamo Bay, and so it is most unlikely that this mission and reality will coincide, please attribute this to heavy doses of ‘Artistic License.’

Building on my observations in the chapter “Mods and Message Boards,” I was looking for modders to pursue a high degree of fidelity in their handiwork as part of their rhetoric. Using exact coordinates or a precise scale, it seemed, connected the artificiality of the game environment to the real world. But even in its simplest form, where one merely identifies a particular place by name instead of accurate representation, this practice occurs only often enough to call it seldom.

Following, only a small minority of maps (3.6%) focuses on single-player game play. I had observed more than a few maps that addressed the player with “Commander,” implying that the player takes on a particular role within the narrative. Telling a story in a traditional Aristotelian manner entails setting out a narrative arc, which the player follows but from which she cannot deviate. And so I had imagined a creator to force the player down a particular path to make an argument and, through game play, convey an experience. The single-player mission *Iraqi Genocide* meets these criteria. It opens with an explanation of the creator’s motivation and overall situation:

To create this chart I took as a starting point real facts, (I cannot however guarantee to you are authenticity). [sic] In 1988 the Iraqi government, directed by Saddam Hussein which had developed a new weapon: the famous BOMB CARBUNCLE, had to decide to send their first model on the village of Alabja in territory of Iraqi Kurdistan, previously the Kurdish people this rebelled vis-a-vis with the Iraqi mode, which had made more than 5000 civil dead. [...] It is not because I wanted to create this scenario that this act approves, It is right because I like to assemble stories which really occurred, The Iraqi army does not have a weapon bacteriological and chemical because they did not carry out sufficient tests yet If the enemies Na not of tank it is because Kurdistan officially does not produce any, I wanted that this chart remains most faithful possible to the conflict in question, It is all the same of a difficulty to the top of the average, good luck.

The player is consequently put in charge of setting up a base, and taking out a number of anti-aircraft defenses. Once all are destroyed, a plane flies over a village and drops a chemical bomb. Along these lines, the player is cast within a railed narrative, which remains under the control of the creator. But with a meager 3.6% of all maps suited for single-player game play against the computer and only 6.6% offering a mission-based storyline, it is difficult to maintain modding as primarily a story-telling practice.

Lastly, only 8.5% of the observed maps feature any type of narrative at all. Again, I had anticipated a greater number of mods to include an opening like:

The three bombs in Riyadh was the biggest terrors attack after Sep/11 and the country faced difficulty against the terrors. [...] This mission will show you exactly what’s happen, and you General will assist this situation

as well [...] be ready for terrors attack, and you have to wipe all the terrorism out to be victories

But this clearly was not the case. Whereas Jenkins observed that commercially produced texts are limited in the topics they can address, but that fans may explore more controversial topics in their fan-art, I have found no evidence of this here. While there do exist instances in which modders take the narrative to a place where Electronic Arts would never go (e.g. *Iraqi Genocide*), this only occurs in a handful. In fact, I have to conclude that modding has little to do with telling a story in the way that a writer produces one. Obviously, in this light, modding would speak to the imagination, opening the door to the suggestion that gamers use what they know to help them better understand situations to which they have no access in real life. But considering the small number of observations, I have no choice but to reject this idea.

Modding, however, is a highly social practice. Or, more accurately, the narrative content of mods is merely window-dressing compared to the emphasis modders place on connecting with other people. This presents itself in variety of ways. First, a majority of user-created maps (760 maps, 90.7%) focus on multi-player game play. This tells us that the real sauce in making your own games goes toward *playing with others*. Moreover, multi-player maps generally come in evens, and rarely in odds: 1,073 maps feature an even number of starting points. This in itself does not tell us that game play should always involve an even number of players, but, more subjectively, that in their design modders gravitate toward symmetrical game play. Perhaps somewhat speculative, I feel confident that this knack for even game play comes from an inherent desire to play together, or to at least avoid an a-social situation in which two people gang up on a single person.

Next, despite the anonymity that online communities afford us, modders mostly choose to include personal identifiers. In a whopping 91.1% of the cases, people had

added their nickname. Sure enough, a nickname is not the same as a personal home address or social security number, but in a digital environment it allows people to locate each other. In fact, beyond online anonymity, 12.4% of the observed cases featured the creator's real name, 22.8% a website address, and 55.5% contained an e-mail address. This suggests that within the context of this online community, modders open the door to reactions from others who download and play their handiwork. Modding, then, is as much as about connecting with other people as it is about playing with the game.

Following, and perhaps the strongest indication of the social nature of modding, is the use of copyright. At first sight, online communities may seem to consist of piracy-prone members. To be sure, popular examples like Napster, where a large community of anonymous people freely exchanged music files without paying appropriate copyrights, has instilled the general idea of online anonymity as a catalyst for copyright infringement. But in 452 cases (29.9%) did modders ask for appropriate accreditation. A typical example is the following:

NOTE: If you wish to host this map you must contact Bryan(USMC) and get the permission of him. [...] Failure to do so will result in being demanded to take it down. The Following sites need no permission to host this map: Planet CnC, Renegade Generals, CnC Den. [...] If you wish to be added to this list contact [name removed] at [...] and get his permission.

The observant reader will remember that this is similar to Au's observation that modders of *Doom* (id Software) abided by the request to not use illegal copies of the software, and, in fact, "even incorporated elements in their mods that prevented their use in the freeware version." (Au, 2002)

In the current study, many modders also *give* credit where it is due. This includes to other modders, but also to Electronic Arts, and those people who build the editorial tools used in creating a map. In *Snow Feud*, for example, the author accredits several

people “for testing this map” and another “for the harbour idea.” And one modder even goes so far as to outright ask for money:

Enjoy, Donations welcome, Please send all donations to [address removed]. If I receive even one donation I will make another map. Note: these things take alot of time to produce, it's not worth my time unless I get paid for my work anymore.

Lastly there are a few observations I made, but did not code. Many modders will also include a “shout-out” (a public acknowledgement of a friendship with or respect for a certain person), or dedication. Some of the more colorful examples are:

Dedicated to cncgeneralsworld.com and their completion of the “All Stars” Mod.” (*Free For All Stars*)

THIS MAP IS DEDICATED TO THE OUTSTANDING MEN AND WOMEN OF THE UNITED STATES MARINE CORPS AND ESPECIALLY TO THOSE WHO FOUGHT AND GAVE THEIR LIVES IN THE BATTLE FOR FALLUJAH.

Salute those who died in the war

God Bless America

SPECIAL THANKS:THE UNITED STATES MARINE CORPS TO ALL the men and women on BOTH American and Japanese sides who fought and/or died In The Invasion Of Iwo Jima.

Id like to dedicate the mission,(something I don't usually do) to a very special person, Christy a close friend for the past two years, this ones something special just like you.

This suggests that modders seek to connect to a larger, shared context, or, at the very least, offer up elements of their own personal experience as a point of common interest.

Instead of a practice geared toward discourse on the topic that original game’s text seems to address, modding operates more as a social activity. By creating maps, modders participate in a larger community, in which the maps themselves are accepted currency or “the medium of exchange.” (Simmel, 1904) Contemporary play, in this context at least, originates in the importance of playing with the game, rather than playing the game itself. Instead of informing one’s creations with everyday elements and thereby

relaying an editorialized narrative, modding revolves around the relations it presumes. Namely, by insisting on receiving proper accreditation and by consistently making contact information available, play serves as a calling card. Modding is communicative in nature, simultaneously for the narratives it presents and the act of surrendering one's chips to the table.

## CHAPTER 10: CONCLUSION

I began this investigation to show that playing video games is a highly social activity, because both the design and playing of a game are expressive acts. Both a game's representation and mechanical system endow it with a certain interior logic. This interiority, I argued, stands in relation to the larger environment in which a game exists. And so the initial question I raised was:

What is the nature of the relationship between the interiority of a video game to the larger reality in which it exists, from a communicative perspective?

As I have shown, the literature of communication studies has traditionally focused on the 'effect' of video games on society (the informational model). A second approach, the experiential model, considered electronic game play as a venue for the creation of meaning. Initially I expected to find that video games—with their fluid digital underpinnings and accessible distribution—would make a fertile arena in which gamers could modify the rules and settings to narrate their interpretations of real life events. In analyzing these interpretations I found, however, that the communicative nature of video games is seldom one of a medium facilitating linear communication. Modders, in other words, do not employ a game's software architecture as a vehicle to transmit messages. Instead, the true communication resides in the surrounding activities of contemporary game play: through modding, by participating on message boards, and in accompanying text files. In each of these we find an active constituency of gamers, who generously share their time, energy and efforts with the understanding that they are recognized for their contribution. So to answer the research question, the relationship between the interiority of a video game and the larger reality is a social one, because it presents a shared experience for its players. They, in turn, do not employ the game along the lines of

a linear, informational model of communication, but rather position it as a central point of reference in their social intercourse.

In answering the research question, I countered the notion that electronic game play is a-social, argued against the almost exclusive economic focus on modding in contemporary literature, and advocated a contextual approach in understanding video games. Putnam's observation that people who play online focused primarily on the game itself and engage much less in "social small talk" (104) demands qualification. Perhaps *during* game play this may be the case, but there exists a wealth of discourse and communicative exchange outside of it, which is arguably more significant in terms of building one's "social capital." In addition, the pervasive presence of contact information in the .txt files, as well as a frequently expressed desire for proper accreditation, indicates a larger social context.

Next, I have tried to move the spotlight of academic theory away from the economic dimensions of modding, and instead highlight the social aspects. Certainly, the struggle over, for instance, ownership remains an important topic. What I did find, on the other hand, is that modders share freely, and offer plenty of opportunity for critical feedback and venues for response, while at the same time asking for proper accreditation and respect. A strong communicative aspect of contemporary game play, in this context, exists in its social dimension, and the participation of an individual in a larger group. To use Jenkins' terminology, modders poach the narrative elements of a game only in so far as bees poach flowers. It is not through modding that they establish communication (both informationally and experientially), but vice versa. Contemporary game play and modding are active pursuits by which, through externalizing our private thoughts and those of others, we enter into a dialogue with the world around us. The scale at which this

takes place, forces us to acknowledge the social relevance of online game play and modding over the current persistence of scholarship on economic implications.

Following, I argued against a linear model of communication in understanding the phenomenon of video games. Initially, the ability to modify a game and to make it speak to anything, it seemed to me, would largely inform modders in their efforts. Inspired by Halter's comment that "the versions of history" presented by commercial games were unsatisfying, a linear, informational model of communication would have yielded mods as "a new means of cultural critique via gaming." (2006) To this end, I assessed their opinions about the country of Iran, and hoped to find a degree of consistency between their opinions and their handiwork. As it turned out, however, while such a connection did exist, it was hardly the kind that allowed generalizing into a larger theory about contemporary game play. Modding, I now know, is not a derivative form of contemporary discourse about a specific topic. Similarly, despite its obvious relation to the narrative of a current, real-life geo-political conflict, CCG is not a three-dimensional chat room where players offer arguments and opinions about the conflict in a way that resembles a form of discussion.

Despite its seemingly frivolous nature, playing is a serious affair. For one, as the first chapter argued, a growing number of people play video game at a higher rate, year-over-year, than any of its entertainment relatives. In a sense, we have come full circle. I connected the observation that people play video games to deal with an overall sense of media ubiquity. Faced with a media torrent, video games present us epistemological models that may give insight into the larger environment in which they exist, in the same way that backgammon promotes the sexigesimal system and chess emphasizes symmetric conflict. The visual building blocks of contemporary game play are inherently frivolous since they offer only fluidity, change, and an absence of death and consequence. As a

result, we are free to experiment. But where I had initially expected people to take this opportunity to manifest their personal beliefs and ideas about the world in the plasticity of video game reality, they only did so in a limited manner. Instead of telling a particular story or offering an alternative reading, modders build levels and maps as a contribution to a larger social group.

In a way, I have reached the same conclusion as Geertz, when he observed the symbolism between the cock for the Balinese and self-identification. Modding is similar because one's status seems to correspond to one's ability and productivity. Like the Balinese, CCG modders make a social investment by creating levels and maps as a prerequisite to entering into the group. By adding ways to be contacted and insisting on accreditation, these modders approximate the kind of "deep play," in which the stakes are so high that it is, from his utilitarian standpoint, irrational for men to engage in it at all. (Geertz 71) That is to say, both the fluid digital underpinnings of video gaming and the locale of public, online communities opens a modder up to the possibility of having his or her handiwork stolen, re-labeled, remixed, and re-distributed without ever receiving any return on this social investment.

In terms of the two general concepts of communication I described at the beginning, I maintain that video games are a form of communication, but they are predominantly experiential in nature. In those instances where I was able to identify specific "real-life" elements (e.g. Iran), the nature of the relationship between the internal logic of CCG modding and a larger reality, however, does appear informational. But these specifics are dwarfed by the degree to which modding revolves around social interaction. The relation between modding and a larger context of digital practices, online communities, technological mastery and contemporary forms of distribution is much more abstract, and its communicative nature thereby primarily experiential.

Reflecting on the potency of a communications perspective in understanding contemporary game play, allows making two observations. First, a qualitative approach that emphasizes a search for characteristics without preconceptions yields more tangible and more insightful results. The original expectations all revolved around modding serving as a sort of 21<sup>st</sup> century, game-inspired discourse. But the findings indicate that modding is much more geared toward social interaction and that content (e.g. the celebration or vilification of protagonists) plays a much less pertinent role.

Second, a quantitative approach in which one looks for a single, a priori determined aspect (consistent with a larger hypothesis), yields disappointing results. In this case, one explanation could be that modders and CCG players spent very little time talking about Iran, for example. This suggests that video games like CCG do not serve as an intersection where people come to discuss the world at large, inspired by game play. Even within the confines of this dissertation, it is clear that analyzing all remarks, comments, message boards posts, mods, and discussions amounts to such a great data set that it cannot be reduced by simply searching for a single keyword. This approach did yield a few choice quotes, but unfortunately does not seem to carry the methodological strength to allow for generalizations about this group of gamers.

### **Recommendations**

With the work behind me, I would like to make the following suggestions for further study and game development.

Whether we play together with hundreds of familiar strangers, or by ourselves in order to seek temporary refuge from a demanding social schedule, our relationship to others always serves a critical element in our playing. Traditionally, the design of video games has ignored this. Arcades certainly were social spaces, but game play facilitated

only one or a few players at once. Even as consoles started to appear in the safety of the household, playing remained a socially limited experience. And finally when the hardware came equipped with modems and other connectivity features, it was the software that created the greatest bottleneck in facilitating social game play. Today, much to the excitement of the electronic entertainment industry, a host of new forms of game play have emerged. A current generation of consumer electronics facilitates so-called massive multi-player game play (e.g. MMOs), online casual games, social play, and mobile gaming to name a few. It is no coincidence that the gaming industry's biggest revenue increase coincides with the growth of broadband penetration. As millions of people worldwide find each other online, join digital communities and spend hours playing with and against each other, I believe it is here that we will find one of the simultaneously most accessible and most revealing venues for human interaction and communication. Already several initiatives exist that focus on online gaming, such as the New York Law School, which hosts an annual conference called *State of Play*, which centers on virtual worlds and MMOs. But never before has there been such a wealth of information available that can tell us more about the nature and behavior of people. I strongly recommend both academic researchers and professional designers to consider the social nature of game play.

Secondly, central to my dissertation has been the rejection to center on the traditional notion of an author. I specifically pointed out Bogost's article, *Game Design Education: Integrating Computation and Culture*, in which he argued for instilling humanist principles in game designers so that they may be better able to describe the human condition. (2006) If I have just stressed the social nature of gaming, I will now argue to place the onus of game theory and research on the actual people who play. Game designers deserve merit. But as social scientists we should stay weary of mistaking an

elite workforce, and its agenda, for a normative proxy. For the same reason, we cannot expect a better-read news industry to yield a better-informed constituency. If we accept the concept of video games as epistemological, experiential devices that facilitate communication, then we should make video games available to the many and not just the few. Of course, I am not arguing to give the whole store away for free. But rather than attempting to morally educate a designer, we could instead incorporate a few software tools with an off-the-shelf video game title that will allow even the most technologically illiterate end-users to contribute.

### **Suggestions for further study**

The idea of more time and a bigger budget certainly inspires. After mulling over the data in the study presented here, I have identified a few suggestions that may prove useful for further study. First, exclusively analyzing *Command & Conquer: Generals* inevitably limits its ability to generalize beyond the genre. As a follow-up project, I would love to explore if the same dynamics exist among digital communities in, for instance, multi-player online games like *World of Warcraft* or *Club Penguin*. Each has a thriving mod scene and count millions of players. Second, I would very much like to evaluate the cost and benefits for a software development company in deciding whether or not, or to what extent, to incorporate editing tools for end-users. It appears to me that although the value of user-generated content generally remains limited, there exists a lot of unexplored value in more actively engaging one's core group of consumers. There certainly exist examples of highly successful games that have traditionally depended on input from their end-users to a great extent. One such is *Dungeons & Dragons*, which makes a lot of money not just by producing and selling off-the-shelf products, but also by routinely organizing game conventions. Rather than keeping the door shut, I'd like to

explore the potential for monetizing a greater collaboration between a profit-based organization and its consumers.

## CHAPTER 11: BIBLIOGRAPHY

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