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Video Games: A Critical Approach

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Abstract

Many important questions about video games appear daunting and unanswerable to game developers, largely because the developers are rooted in scientific culture that requires quantitative answers to problems. This paper applies different philosophical methods, such as critical theory and negative dialectic, to video games, to can attain an understanding of games that we did not previously have. The unanswerable is only unanswerable as such in the framework of instrumental reason.

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I. Introduction

Developers of video games, time and time again, find themselves coming up against seemingly unanswerable questions. Certainly some these questions concern violence in video games and what it does or does not do to children, but there are other, more abstract questions that game developers face that they have not answered satisfactorily. Is a game only a game? When is it not a game? Is the individual the sole interpreter of a game's reality? How does a game affect the player, in a general sense?

These questions appear daunting and unanswerable to game developers, largely because game developers are rooted in the scientific culture that requires quantitative answers to problems, answers attained through formal logic. Indeed, "the philosophical center of [the game developer's] world is the Von Neumann stored-program digital

computer" (Adams). By applying different philosophical methods, such as critical theory and negative dialectic, to video games, we can attain an understanding of games that we did not previously have. The unanswerable is only unanswerable as such in the framework of instrumental reason. These new answers can give game developers insight as to how one might go about designing a game to promote positive social change, how to design a game that questions the status quo rather than promotes it.

In the following section, this paper discusses the theoretical philosophical framework that will be used to examine games later in the paper. The theoretical discussion is followed up with a look at the historical and social significance of video games along with the history and current state of play theory. Then, in a section concerning the militarization of games, the case is made for the video games as upholding the modern social hierarchy in both the history of the industry as well as the game designs that have emerged. Finally, this is followed by three analyses of video games in light of specific facets of critical theory.

II. Theoretical Framework

This paper attempts to lay the groundwork for applying the philosophical method known as "critical theory" to computer games. Critical theory, in the context of this paper, can be considered in general as a qualitative application of reason to the ways that cultural institutions shape identities and relations in both the public and private spheres (Wikipedia). Critical theory is a simultaneous application and reclamation of reason; it is a reaction to modern society's pigeonholing of reason into categories governed only by "efficiency, consistency, and manipulation" which can only create a "bureaucratic, technocratic, amoral, and spiritless society" (Kaplan). Critical theory has been applied to any number of institutions operating under the umbrella of politics, capitalism, media, science, academics, etc. But to first understand critical theory, we must investigate dialectic thought as a philosophical method.

Dialectic Thought and Critical Theory

> "Facts just twist the truth around.
> Facts are living turned inside out.
> Facts are getting the best of them.
> Facts are nothing on the face of things."
> - Talking Heads, "Crosseyed and Painless"

Modern scientific and 'rational' thought is wholly positivist: it sees no place for contradictions in our knowledge of the world. This is because our technological reality consists of the 'world of facts,' and in this world there is no place for contradiction. Yet we experience contradictions as a part of everyday existence. For instance, there cannot be a self without an other to witness our selfhood. A more immediate example would be the U.S. government's insistence that removing civil liberties is the only way to ensure

liberty. What does scientific, positivist thought have to say of such contradictions? As Wittgenstein says in the resigned poetry of the *Tractatus Logico-Philosophicus*, these contradictions cannot be spoken of, and must be passed over in silence.

Dialectic thought is a philosophical method that acknowledges the contradictions of existence. Simultaneously, dialectic thought is a criticism of the failure of positivism and the 'world of facts' to recognize contradiction. As such, it seeks to arrive at truth via negation of that which is, i.e. the present state of affairs.

Historically, dialectic can be traced back to Immanuel Kant's first Critique. Kant, who is concerned with epistemology, the nature of knowledge itself, shows that pairs of contradictory ideas can exist side by side in philosophy. He calls these contradictions "antinomies." An antinomy is two or more well-supported conclusions that cannot possibly coexist. If contradictions can be derived using reason from incontestable principles, then that phenomenon, Kant says, demonstrates the "illusory nature of reason" (Solomon 35). This does not mean that philosophy is invalid—unless one is looking from the perspective of a frame of thought that disallows contradiction, which is the very perspective that dialectic thought is critiquing in the first place.

Dialectic thought begins with the assumption that all beings exist in a state of unfreedom, of alienation, that all beings "exist 'as other than they are'" (Marcuse 1960, ix). An immediate manifestation of this assumption is the observation that the 'world of facts' is bent on "streamlining rather than abolishing the domination of man, both by man and by the products of his labor" (Marcuse 1960, vii). This may at first seem strange, but in fact this kind of assumption is grounded in philosophical tradition. For example, Plato began his philosophy with the assumption that humankind is imperfect, and that there

exists a perfect, or desirable, state to achieve. Dialectic thought states that imperfection is alienation and unfreedom, while 'perfection' is freedom, "comprehending and mastering alienation" (Marcuse 1960, ix).

Dialectic thought forms a basis for critical theory. Both methods "testify to an awareness of the radical falsity of the established forms of life." While the established forms of life have necessarily created all the freedom we see, these forms of life have also necessarily created all the unfreedom we see. The "increasing comforts of life [...] keep man enslaved to the prevailing state of affairs." Technological reality has joined the subject "with the object so closely that the notion of the object necessarily includes the subject." (Marcuse 1960, xii-xiv)

Critical theory provides a *qualitative* analysis of cultural institutions in a structured way. Society at large is typically very good at analyzing its cultural institutions in a *quantitative* way. We can ask how a new law will effect the efficiency of our capitalist enterprises. We can tackle a social problem by referring to mountains of quantitative data collected by social scientists for public problems and psychologists for private problems. But when we attempt to speak qualitatively, we lack the tools to express ourselves; we begin to speak of "values," and as Nadezhda Mandelstam says, "We begin to exchange set phrases, not noticing that all living meaning has gone from them" (Winner 156). We inevitably revert to quantitative thought when we employ experts on values, and "humanist intellectuals are often called upon to instruct engineers, planners, and decision makers as to what the 'good' values are in our culture and how to maximize them" (Winner 160).

Critical theory lets us throw out sloppy, catch-all terms like "values" and start replacing those terms with more substantive concepts; those concepts vary depending on what sort of analysis we wish to make (Winner 37). "The ultimate goal of the [c]ritical [t]heory is to transform our present society into a just, rational, humane, and reconciled society," to avoid the movement of our society towards a completely technocratic/bureaucratic or militarized existence—to avoid what Marcuse would call the "one-dimensional" society (Jensen). Critical theory is a critique of instrumental reason (the "eclipsing of ends") and of commodity fetishism.

Critical theory can shed new light on the questions about video games that quantitative analysis has a hard time answering. First and foremost is the question of "ludic neutrality": is a game only a game? In other words, is a game a neutral artifact whose effect on the player is determined by the player alone? "It's just a game" is a deflection of criticism that you hear echoing in the halls of the Game Developers Conference every year, but is that deflection valid? Why do game developers keep insisting on this defense? Critical theory may shed light on the observation made by game designer Greg Costikyan that "non-gamers tend to approach a new situation asking 'what do I need to know?', while gamers tend to ask 'How do I game this system to get what I want?'". (Bittanti)

The question of ludic neutrality is similar to the question of the neutrality of technology (or technological instrumentalism), which is the starting point of existing critical theory of technology, and is worth examining in detail.

Critical Theory of Technology

"Lines, circles, scenes, letters and characters,
Ay, these are those that Faustus most desires."
- Christopher Marlowe, Dr. Faustus

A phone is not just some tool that we use to talk to people who are not in the same physical place as we are. It changes the way we think about distance—how far away is someone if you can have a heated argument with them? It changes the way that we experience loneliness and longing—we can have a long-distance relationship where we talk to a person every day, or we can have phone sex. It changes the way that we view what a conversation itself really is—diminishing the importance of gesture and facial expression, allowing for a conversation to take place without those elements. What begins as an abstract, 'good-enough' substitute for conversation *becomes* conversation itself.

The above example illustrates why a critical theory of technology is necessary. Technology conflates ends and means, as can be seen in the case of the phone call as a means becoming the conversation as an end. The 'how' of our actions affects the essence of our being when those actions are mediated through technology (Feenberg 2, 1999). The neutrality of technology is a myth. The value of technology is not only determined by those who use it; the values of the user are affected by the technology.

Technology in itself does not exist, yet criticism of technology most often focuses on this false notion and ignores the question of how technology transforms its environment and the ostensible 'users' who are in fact far less objectively distance from technology than they would like to think. This technologically deterministic critique, what Feenberg calls a "product critique," focuses solely on technology in itself and the

worth of the products for which it is used (32, 1999). In the case of modern video game critique, the "product" of a video game is "fun," as from the point of view of most popular criticism (gaming magazines) games are seen as technologies designed to generate fun.[1] The game industry is also inexorably tied to the economy, as a sector thereof. Game journalists look at the economic values of a game; as Matteo Bittanti pointed out at the 2004 Game Developer's Conference, gaming magazines "are designed as consumer guides." The games industry is increasingly seen as a hot area for university studies, as the industry is a fast-growing sector of the economy. In fact, Electronic Arts endowed a faculty chair at the University of Southern California on February 8, 2005, becoming the first such partnership in the world (Associated Press). As of May 2004, Electronic Arts owned 22% of the North American game market, with its closest competitor, Nintendo, owning 11% (Pethokoukis). A number of critics see games as an art form, to be judged by aesthetic guidelines, but this viewpoint belongs to a distinct minority lacking in the capital and means of production to effect a widespread change in the way things are seen in the industry. This push for the consideration of games as art is seen by many as pretentious puffery, but it appears to really be a cry for the extraction of the games industry from the economy. At the 2004 Game Developer's Conference, Matteo Bittanti pointed out that gaming magazines "are designed as consumer guides" and "[a]re obsessed with quantitative evaluation. Games are discussed in terms of numbers, percentages, grades, and scores," leading to what he calls a "Game Nutritional Label" (Bittanti 3).

The Subject in Continental Thought

The subject is primarily a mode of understanding the concept of the self. Before the concept of the subject can be examined in any detail, the historical context of the subject in continental thought requires its own examination, at least to establish what exactly the subject is *not*.

The history of the subject in continental philosophy can be traced back to G. W. F. Hegel (1770 – 1831), particularly in his conception of the Master-Slave relation. Here, Hegel attempts to show that there exist no individuals in nature, that the contained self-as-concept only comes into being in the context of a culture. Hegel's example is that of two conscious beings who meet up with one another and wish to obliterate each other because of the perceived threat to independence that the other presents. However, each of these beings realizes that he or she cannot kill the other, since one being's death would destroy the only witness to the freedom of the other. According to Hegel, the fight becomes not a battle to the death, but a battle for dominance where the winner becomes the master and the loser becomes the slave. The master is only able to realize his or her selfhood through the continued existence of the slave; in Hegel's own words, consciousness exists "on its own account [but] is mediated with itself through another consciousness" (Solomon 67). If the self is externally mediated, then pure self-reflection is no longer possible, for while we turn inward, we can only see our self in the light provided by others.

Hegel published his account of the Master-Slave relation in *The Phenomenology of Spirit*. Modern phenomenology is derived from the object of the externally mediated self found in Hegel's book, and has as its originator the philosopher Edmund Husserl

(1859 – 1938). Husserl was a Jewish German who came from a background as a mathematician, and delved into philosophy when he began to question why arithmetic was considered fundamentally true. Like Hegel, Husserl believes that truth can be found in the Absolute; unlike Hegel, he believes that the Absolute can be found in human consciousness. Husserl accepts Descartes' *cogito* as a starting point for his method of "phenomenology." Phenomenology takes the *cogito* and the externally mediated self and attempts to determine the essential nature of experience and of the objects of experience solely via our intuitive experience of phenomena. The goal of phenomenology, according to Husserl, is to return philosophy to a rational science while not simultaneously invoking the scientific method. For him, scientific method leads to naturalism, and naturalism leads to relativism, which he calls an "absurd" concept that excludes the possibility of necessary truth, and hence excludes the possibility of knowledge. (Solomon)

While Husserl's phenomenology certainly provided a new method for examining the world, it was Husserl's insistence on a presupposition-less philosophy that drove Martin Heidegger (1889-1976) to throw out the *cogito* as well as any assumptions involving consciousness. Heidegger, who considered himself a phenomenologist, offered the concept of "*Dasein*" as an alternative to the *cogito*. *Dasein* is the concept of 'being-in-the-world,' but does not presuppose existence of any kind of mind/matter self/world duality. Indeed, while the fundamental characteristic of *Dasein* is that it is concerned with its own self, this does not mean that there necessarily exists a self. A *Dasein* is more of a awareness woven into the fabric of the world, rather than a self. For Heidegger, our concept of self only arrives as we encounter other *Daseins* and are subsequently defined

by them. So whatever self does exist is not our own selves, but rather entirely externally defined. (Solomon)

The idea of self as defined in relation to other beings is the key to understanding the subject. Jean-Paul Sartre (1905 – 1980) was heavily influenced by Husserl and Heidegger, and his conception of the subject and intersubjectivity is the version to which this paper will refer. The phenomenological world of the subject can be seen as being composed of two axes. On one axis, we find the self and the other. By Sartre's reckoning, the subject, or the subjective individual, is first derived from Descartes' *cogito*; he ignores Heidegger's refutation of Descartes in the process. Thought implies existence; Sartre says that the *cogito* "gives man dignity" and gives humankind the potential to rise above the realm of objects (Sartre 51). The *cogito* is what gives humans the ability to realize that the self is tangibly different from that which is not the self. On the second axis, we find the subject and the object. The object is static, examined, acted upon, while the subject is an active process, a *relation*, particularly the relation of the reciprocal recognition of two thinking beings. It is precisely this *relational* quality of the subject that differentiates it from the object. The reader may refer to a diagram of the relational qualities of the self in Figure 1.

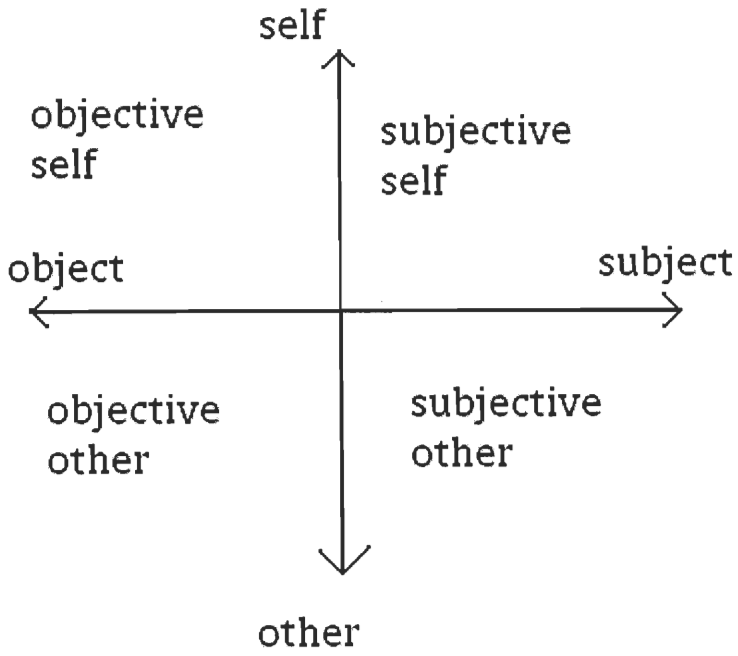

Figure 1. The relational qualities of the self.

Let us begin with the hypothetical case of the human being sealed off from all human contact, left with only her or himself and a few physical objects for company. There are only two possible actions for this island of a person to undertake. The first action is self-reflection, retreat into the self. While this retreat further affirms one's status as self rather than as other, it does very little to affirm one's status as either subject or object, as there is no reciprocal recognition of the self by the self. This is because our consciousness is externally mediated, and self-reflection is an impossible action except through the lens of others. The second action is to for this island-person to physically act upon the objects in the near vicinity. However, further objectifying others by acting upon them does not enhance or affirm one's subjectivity in any way—and the objects in the room certainly cannot recognize the island-person as a thinking being. The solitary self is an objectified self.

Now imagine that another human being, another island-person, enters the room. At first, the two recognize each other as an other; yet at precisely this 'eureka' moment each person realizes that he or she is being marked as an other. It is this realization that transforms the relation, as the self is marked as a subjective self just as the other is marked as a subjective other. So while the solitary individual is an object (albeit an impossible object construed for the purposes of this illustration), the introduction of another thinking being causes reciprocal recognition, which creates subjectivity. This relation of recognition, and any further relations between any group of thinking beings, is known as the intersubjective field. This is what Marx means when he says that the smallest unit of the subject is two.

III. Who Plays Whom?

In order to understand how video games relate to the subject, we first need to define play and games in the general case, followed by an examination of the relationship between human beings and the computer. With an understanding of these two elements we can see how the addition of the human/computer relation to the activity of play fundamentally changes the phenomenology of play.

Historical and Social Significance of Computers and Games

The initial development of video games did not occur within a vacuum. Specific social, historical, and technological preconditions were necessary to being about the creation of the video game as a pastime.

The most obvious technological prerequisite for video games is the existence of computer technology; that is, a machine able to perform a deterministic simulation. While video games may contain an element of randomness, they are almost all deterministic simulations of one sort or another. Before the advent of the computer, creating a simulation game anything like a modern video game would have been next to impossible[1]. This is not to say such feats have never been done; one telling example is *Ace of Aces*, a three-dimensional simulation of a World War I dogfight, takes place entirely between two players in small handbooks. Each page of the book is a screen representing a three-dimensional view from the player's cockpit. The game plays out like a massively complex branching story: if the player turns left, she flips the book to page

[1] Hunting, when taken as a 'sport,' is of course remarkably similar to modern first-person shooter video games. But it is important to remember that hunting is not a simulation; it is the real thing. The video game is what simulates the act of hunting.

185. To turn right, flip to page 33. Each page updates what the player sees. And yet while this game is a flight simulator that does not use a computer, it is of critical importance to note that the game developed in 1980, well after the advent of the computer. The game borrows critical concepts from the computer, without which it could not exist. Not only does the action take place on a paper 'screen,' but the game uses "a complex formal system to represent the speed, maneuverability, visibility, weapons fire, and other aspects of two-plane air combat" (Salen 425). The type of formal system used to create the simulation of this game is a finite state machine, devised in 1936 by Alan Turing, whose idea gave birth to the modern field of computer science. *Ace of Aces* takes place entirely within a book: in terms of physical materials, the game certainly could have existed before the development of the computer. Yet the concepts it uses are so bound to the abstract concepts that govern the computer, and there is no way that this game would have existed before World War II, when the use of formal systems to model aviation was pioneered. What the example of *Ace of Aces* shows is that the idea of a simulation game, and therefore the basic structure of the video game, is inextricably bound to computer technology.

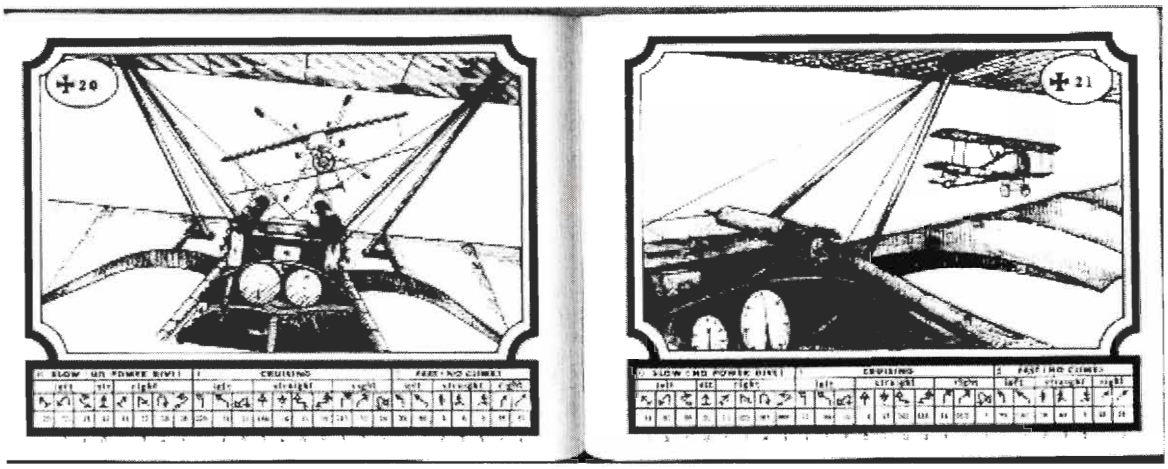

Figure 2. Pages from *Ace of Aces*. Printed with permission. (http://maverick.brainiac.com/aoa/aoa1.html)

A second technological prerequisite, related to but also independent from the computer, is display technology. The screen, be it a television, an oscilloscope, or a computer monitor, is the primary channel of communication that allows a video game to send information to the player. The very phrase 'video game' illuminates the importance of display technology. It is no coincidence that *Spacewar,* the first video game to run on a computer, was developed on the PDP-1 in 1962. The PDP-1 was one of the first computers to use a monitor, rather than print-outs, to display data. (Kent)

Yet the screen was not only a technological innovation, but was part of a massive change in the cultural boundaries of Western society. This third social condition is what we call the Space Age. Many early video games, *SpaceWar* included, were about the exploration of outer space, and all early computer games were about exploration and domination of environment in the general sense, a Manifest Destiny theme. It is a testament to the power of metaphor that in the 1960s, people looked at a blank television, oscilloscope, or monitor, and saw the vastness of space to be conquered[2]. The Space Age

[2] This idea of blank screen as conquerable space was postulated by Bradley Momberger, a WPI graduate student, in a discussion on the present author's blog.

was a time when the interactive display became a popular reality, as seen in myriad examples of science fiction from the era. There exists some circumstantial evidence of social context of the Space Age being every bit as important as technological context to the genesis of the video game. In 1949, Ralph Baer was working at Loral, an engineering firm, developing a television set. He proposed the idea of including a TV game to increase unit sales, but he received "the predictable negative reaction, and that was the end of that" (Baer). It was only in 1966, the heart of the Space Age, that the culture had changed, and Baer was able to convince his military contractor bosses to finance a team to develop a pong game. The technology existed in 1949, but society was not yet ready.

Tied to the single-player games that we will focus on in this paper is the fourth condition that fostered the growth of video games: the society of alienation and isolation. Video games, up until their very recent history, have been primarily about solitary play. Yet the social conditions for solitary play have not always existed. For example, solitaire card games have existed in Europe since at least the 1300s, but they did not achieve any great level of popularity or maturity until the mid-19th century, culminating with the 1870 publication of Lady Adelaide Cadogan's *Illustrated Games of Patience* and its many subsequent reprints. If one reads early descriptions of why people play solitaire card games, one finds examples that directly relate to the state of the individual within society at large. One 1883 book of games declares that a solitaire game "affords an attractive pastime and a grateful relief when overtaxed by too assiduous application to business or study; it serves to fill up idle hours, and to soothe the unrest of the unfortunate victim of insomnia [...] you have it all your own way." (Dick 3). A 1917 book on solitaire claims that "[n]o matter what may be our domestic and social surroundings there come times to

each of us when [...] we must inevitably suffer from loneliness or ennui," and solitaire is presented as a solution to that ennui (Hapgood 5). While most histories of solitaire pin the great age of solitaire games to be the Napoleonic Era, perhaps the Industrial Revolution and all its attendant alienations are more to do with the success of solitary play. It is no coincidence that the United States and Japan, two of the most industrialized nations in the world, spawned the games that set the standard for video games as we know them.

Solitary play as a method of "blowing off steam" is a motif heard often within the modern video game industry, and even within pop psychology in books like Gerard Jones' Killing Monsters. Game designer and theorist Marc LeBlanc postulates that the fun of playing a solitaire card game lies not only in the challenge of the experience, but also in the "ritualized act of behaving in a rule-based, stylized manner" (Salen 334). LeBlanc calls this the "submission" aspect of play: the player's voluntary submission to a system (Hunicke 2).

Defining Games

> "Due to its marginal existence in relation to the oppressive reality of work, play is often regarded as fictitious."
> - Internationale Situationniste #1 (June 1958)

According to game designer Greg Costikyan, the problem with current definitions of games "is that they are essentially formalist. That is, they look at the variety of things we call "games," and attempt to deduce a meaning of "game" that derives from their shared characteristics." These formalist, analytical definitions not only inevitably exclude certain games from being considered as games, but also by reducing games to individual elements that are to be considered separately, these definitions do not provide a solid ground for addressing many questions about games in general, particularly questions

relating to non-technical problems. As Eric Zimmerman says, "For a designer, the value of a concept or definition is not its scientific accuracy, but instead its ability to solve problems" (Christopher). While Zimmerman is speaking of design problems and excluding social problems, critical theory shows that design problems *are* social problems (Feenberg 14, 1999).

Play is a natural human activity, and games are its reification, just as books are a reification and eventual commoditization of storytelling (Costikyan, 2004). But what is play?

Conceptions of Play

Most theorists who study games and play, especially those theorists inside the computer game industry, will tell you that play is a natural, evolutionarily useful activity. In mammals, play is a way of honing one's skills in a safe environment; puppies practice fighting each other, but nobody gets hurt. Yet this prevailing view comes from a computer game development community that is based in the culture of programming, and that in turn is based in the culture of science[3]. Perhaps more specifically than "science," programming is rooted in the culture of positivism. This can be seen in the industry when one hears about undeniable faith in progress, which is particularly evident when game developers assume that games will get "better and better" every year even without any kind of substantive critique. A culture rooted in science and positivism would certainly

[3] While several people, including Ernest Adams in his "Philosophical Roots of Game Development" talk at the 2004 Game Developers Conference in San Jose, CA, have endeavored to show that the computer game industry is ideologically rooted in programming, science, and positivism, the best circumstantial evidence for this is the 2003 International Game Developers Association (IGDA) salary survey. In 2003, the average male game programmer earned $77,853/year, far more than the average male game artists or designers, who earned $57,825/year and $66,113/year, respectively. Females earned less money across the board, and the average programmer made more in 2003 than the average manager! These numbers underscore the immense value that game developers place on programming over art or even management. (Olsen)

advance the notion that a behavior with an evolutionary advantage is a justification for that behavior in and of itself. But as Daniel Dennett has noted, "evolution is not endorsement" (*The Believer*, March 2004).

Play scholar Brian Sutton-Smith says that the

> belief in play as progress [in developing skills] is something that most Westerners cherish, but its relevance to play has been more often assumed than demonstrated. Most educators over the past two hundred years seem to have so needed to represent playful imitation as a form of children's socialization and moral, social, and cognitive growth that they have seen play as being primarily about development rather than enjoyment. (9-10)

While certainly skill-building is one reason that humans play, Sutton-Smith identifies six reasons for play beyond that of progress, which he calls his seven rhetorics of play. He identifies the second rhetoric of play as fate, based on the intellectually unfashionable idea that humans have little control over their destiny; the play of fate is the conscious surrender of control in a playful manner. Games of chance (at least those that do not involve betting sums of money) are exemplary of this playful surrender of control.

Third, and contrasting with play as fate, is the rhetoric of play as power, which is play used as a conflict used to establish a very real dominance over others. In the context of online computer games, "leaderboards" provide statistics showing who is the best player logged on to a server, and sometimes who is the best player of all time. These statistics translate to bragging rights that allow adolescent boys (and sometimes others) to dominate a social group of players.

What Sutton-Smith calls the fourth rhetoric of identity refers to play used to denote membership in a community and to promote community bonding. The fifth

rhetoric of the imaginary is concerned with flexibility, improvisation, and design. When applied to play, the sixth rhetoric of the self refers to the psychological origins of play (play for fun, escape, or other internal reasons). The seventh and final rhetoric of play is the rhetoric of the frivolous—this includes not only foolish behavior, but also playful criticism of the status quo; i.e., the fool in a medieval court. Sutton-Smith's definitions of types of play are different from what we normally encounter when we seek to talk about play. Most dialogue concerning play takes place within the rhetoric of progress or the rhetoric of psychology, and often the rhetoric of identity. However, play as power, fate, imagination, and subversion are very powerful and in some cases ancient forms of play that are often overlooked.

According to Huizinga, the activity of play takes place in a location called the "magic circle." While the magic circle certainly occupies physical space as we know it, the circle occupies a completely different social and mental space from our quotidian reality. Inside the magic circle, life is governed by two basic rule: (1) follow the rules of the game, and (2) what happens inside the magic circle stays inside the magic circle. What is meant by (2) is that, for example, a player who loses a game cannot take revenge outside the context of the game: doing so would be "poor sportsmanship." The magic circle has the power to break very strong social taboos. People often comment bemusedly that some of the most blatant homophobes love football and wrestling, both sports with strong homosexual undertones. The fact that these sports "legalize" the taboo of men in spandex jumping on each other is a testament to the power of the magic circle.

Yet in order for play to have any social value, *something* must be taken out of the magic circle. And that something varies depending on which way we look at play: we

could say the player takes away the skill set developed during play; we could say the athlete gains a level of respect or of power; we could say the Dungeons and Dragons player is accepted into a social group.

Although play is often a relation between subjects, play can also be a relation between one subject and an object, usually a mechanical system. For instance, bouncing a tennis ball off of a wall and catching it is a kind of play known as "ludic activity." The tennis ball activity is certainly play, but there is no understood formal structure to it except what is loosely defined in the player's head. Ludic activity is playful, but it is not a game. However, if another person were brought into the activity, and a set of rules were articulated as to who gets to catch the ball when, we would then have a game, something similar to handball.

Using a definition of a game as the reification of a play relation between two subjects, and ludic activity as a play relation between a subject and an object, where does that leave us in terms of a computer game? First and foremost, this begs the question: is the computer a subject?

Is the Computer a Subject?

In early pop cultural conceptions of the computer, we see the computer considered as subject. For example, we see HAL 9000, the murderous, sentient flight computer of 1968's *2001: A Space Odyssey* as a subject. This reflected the prevailing industrial-scientific notion of the 1960s and 1970s that computers could be programmed to think like humans, that artificial intelligence (AI) could be realized. Interestingly, this stems from the Cartesian notion of the separation of the mind and the body. During the Enlightenment, the human body was reduced, through analytic reason, to nothing more

than a clockwork mechanism: the moment we used physics to formalize the physical as an other, we modeled our physical body on this outside entity. The moment we conceived of computers as a set of algorithms, we began to think of our mind in that way, as well.

Computer scientists believed that computers could achieve intelligence because they believed that they could model the brain using a computer. Yet the model of the brain that they used was based on the conception of the computer itself. The object can become the subject because the subject is an object to begin with. The truth of the theory seemed self-evident to those AI researchers who believed in their work, but from an outside perspective, that truth appears to be self-referential and devoid of meaning.

Beginning in the 1980s, research money was diverted in large part from AI research into the creation of computers with more direct use-value to the consumer. This was the conception of the computer as a tool, as an object, and this shift was motivated by capitalists who saw great potential in the computer as a commodity, rather than as a way to calculate ballistics for the military.

This mode of thought where the computer is seen as a subject is related to the conception of what cyber-philosopher Michael Heim calls the computer as opponent. The computer as opponent is a separate, combative other. The computer is here to do our job better than we can. The computer wields power, and this was the dominant view of computers (even within the computer industry) until the late 1970s. The single-player computer game typically offers up an artificially intelligent opponent for the player to combat against—the computer as a literal opponent.

On the other side of Heim's classification is the vision of computer as component. As a component, computer is a friend, a tool, a part of ourselves that we can use to

enhance our current capabilities. This relates particularly well to multiplayer online games, as the computer is typically the mediating agent which enables the players to communicate and play with one another.

Some theorists within the games and technology industry have espoused the idea that the human-computer interaction is a relation. The central idea of interactive design for electronic devices as put forth by game developer and designer Chris Crawford is that of a dual cybernetic system. Crawford frames all interactivity as a feedback loop consisting of three repeating processes occurring between two agents: listening, thinking, and speaking. These three stages are present in any interactive situation, not merely bound by the computer. A conversation with a friend is certainly interactive: Fred listens to Joe's story of his bad day at work, Fred thinks about Joe's story, and Fred speaks, "Why don't you quit your job?" Meanwhile, Joe is listening to Fred's response, and the cycle begins again. Both agents experience the listen/think/speak cycle. Crawford believes that interactions with computers follow the same schema. The user listens to the computer via the display and the sound system. Then the user thinks about that information using his or her brain. Finally, the user speaks to the computer using various input devices including the mouse, the keyboard, etc. The computer listens to the input from these devices, its programmed algorithms think about the information, and then the algorithms generate new data for the user to listen to. When Crawford speaks of "agents" he means the subjects of an interactive relation. (Crawford 5-7)

Is the computer a subject simply because it thinks, speaks, and listens like a human subject? Certainly the phenomenological aspects of subject relations can be found in the human-computer interaction; just as the reality of two people speaking to one

another becomes their exclusive, shared reality, the reality of a person immersed in a computer game becomes an exclusive reality, as well. But the two are qualitatively different, as the human-computer relation is not a shared reality. It is this qualitative difference, the inability of the computer to share an experience with a person, that allows us to come to the intuitive conclusion that the computer is not a subject.

One could take this argument to an extreme and claim that artificially intelligent opponents in a single-player computer game simply create the illusion of a game. While the player is interacting with something that behaves like a subject, in the end, the player is interacting with a very complicated object. The "game" turns out to be mere ludic activity, throwing a tennis ball against a very well-disguised and complicated wall. Then again, if we define a game as a reification of play, the single-player computer game certainly fits this definition. The play relation is reified and transformed into a commodity by the game designers and developers, and that commodity is purchased by the player, who then engages in this reified play.

As Julian Stallaras noted:

> Computer games perform simulated acts of reification where slices of immaterial code act as living beings but are arranged and treated as objects. [...] The player, too, is blatantly objectified by the act of playing: this is invoked in a television advertisement for the Super Nintendo console in which the player is swiftly transformed part by part into a bio-mechanical being. (Stallabras)

The Phenomenology of Computer Play

In 1960, the German phenomenologist Hans-Georg Gadamer published his most famous work, Truth and Method, in which he tackled the problem of truth and understanding, with the ultimate aim of showing that the objectivism required by science

is ultimately impossible to achieve. In the first section of the book, Gadamer explores truth as understood through the experience of art; more importantly to the topic of this paper, he explores play as a central concept of the experience of art, which has its origins in the aesthetics of Kant and Schiller (Gadamer 101).

To frame his discussion of play in art, Gadamer first sets down a definition of play that is curiously different from those definitions we see coming out of the game studies world at the moment. He says that play is a natural phenomenon that reaches its realization using the player or players as a medium, and that in the case of games, the player is actually being mastered by the game itself. This requires further explanation, as the definition is not immediately intuitive.

First, Gadamer accepts Huizinga's assertion that play occurs in a closed, sacred space, "one without transition and mediation to the world of aims" (Gadamer 107). Gadamer notes that while play and the choices it entails are not serious, the attitude towards play of the player must be serious to the extent that the player loses him or herself in the game. Yet paradoxically that seriousness must also entail a shared understanding that what happens during play is not 'real.' A person is considered a poor sport if he or she takes something that occurs in a game personally; to do so is to break the magic circle, upon which the success of a game depends.

Gadamer looks at the metaphorical uses of the word 'play' in order to extract a true definition of the word. He considers "the play of light, the play of the waves, the play of a component in a bearing-case, the inter-play of limbs, the play of forces, the play of gnats, even a play on words." He contends that each use of the word play has in common a motion, a "to-and-fro movement which is not tied to any goal which would bring it to

an end." Interestingly, "it is irrelevant whether or not there is a subject who plays" and "as far as [linguistic definitions are] concerned, the actual subject of play is obviously not an individual [...] but instead the play itself." (Gadamer 103-104)

But we are not concerned with the play of objects; we are concerned with the special case of the play of subjects, or at least one subject, as in the case of playing alone with a ball. Yet it is not that animals and light and water play just like humankind does: it is humankind which plays like the natural world. And, crucially according to Gadamer, "playing is a natural process" which reaches its own self-representation through the players themselves (Gadamer 105). "The players are not the subjects of play; instead play merely reaches presentation (Darstellung) through the players" (Gadamer 103)

The key aspect of this definition is that play does not have to occur between subjects. In fact, during a game there does not need to be another subject, but simply "something else with which the player plays and which automatically responds to his move with a counter-move. Thus the cat at play chooses the ball of wool because it responds to play" (Gadamer 105-106). However, this definition has the consequence that a game necessarily masters its players: if the players become the mediators of the natural process of play, then the players are themselves being played.

How can this be? It all comes down to the player transforming the qualitative nature of his or her actions by choosing to play.

> Every game presents the man who plays it with a task. He cannot enjoy the freedom of playing himself out without transforming the aims of his purposive behaviour into mere tasks of the game. Thus the child gives itself a task in playing with a ball, and such tasks are playful ones because the purpose of the game is not really solving the task, but ordering and shaping the movement of the game itself. (Gadamer 107)

The actions that players take in the context of the game have no purported aims outside of the context of the game itself—this limits what the actions taken in a game can really mean. "Play is really limited to presenting itself" and thus the mode of being of play is that of self-presentation (Gadamer 108). Gadamer's self-presentation is possibly a negative, or autonomous, form of Heidegger's "revealing." In this case, play does not reveal to us something about the world as a holistic entity, but rather play only reveals itself to us. So all of our game-actions, even in a game which touts our freedom to act any way we like, are simply bringing the game as a whole to its realization. This is what Gadamer means when he says that the players are the ones being played.[4]

[4] Interestingly, Dr. Erik Weissengruber of Toronto Polytechnic Institute notes that "Play is autotelic or self-creating. T.S. Eliot and others regarded poems as self-sufficient constructs: one didn't need to refer them to the psychology of their authors or by reference to moral and political generalities. Politically committed critics dislike the way art was set apart from life by this stance, espeically [sic] since this setting apart turns the artistic work into a fetish -- a being with illusory magical powers of its own. However, systems theory and cybernetics do suggest non-mystified ways in which systems of thought and behavior, or systems of thinkingbehaving, can generate or elaborate themselves. Niklaus Luhman and sociocybernetics apply these ideas to the domain of culture. A poem is like a ball or a computer game: it is non-sentient but sentient beings can interact with it as if it were a sentient play-partner -- this "as if" is the core of the play attitude."

IV. The Militarization of Games

Modern historians typically trace the roots of the video game industry back to the late 1950s and the early 1960s, citing origins in three distinct but related cultures: military laboratories, military contracting firms, and universities with large defense endowments for military research. The first known incarnation of *Pong* (the game that would eventually launch an industry) was developed in 1958 at Brookhaven National Laboratory, in Upton, New York. Called "tennis for two," it was created by William Higinbotham, a researcher at the nuclear research facility, who needed a way to entertain visitors to the laboratory's open house (Hunter). Ralph Baer is most often credited as the inventor of video games—in 1966, he was working at Sanders Associates, a military contracting firm. Sanders was looking for "a new use for television sets." By June 1967, an engineering team led by Baer had developed, independently of Higinbotham, a version of *Pong*. The first arcade game, *Computer Space*, can trace its lineage to *Spacewar*, a game created at the Massachusetts Institute of Technology in 1962 by Steven Russell, a member of the Tech Model Railroad Club. The game ran on a PDP-1, a $120,000, car-sized computer that was one of the first computers to use a display rather than print-outs as its primary mode of output (Kent).

The first question that a historian of the video game industry should ask is one that rarely ever gets asked in the first place: why the origin in military institutions? Perhaps most historians don't even examine the fact because it seems obvious to them that only institutions with defense funding would have been able to afford the equipment necessary to build such games. According to Nolan Bushnell, the founder of Atari who entered the video game business after playing *Spacewar*, "In the late 1960s, if you

wanted to connect a computer up to a telephone or a video screen, you did it only in three places in the known universe: the University of Utah, M.I.T., or Stanford" (Kent). The unspoken assumption of Bushnell's is that you did not have access to military computing facilities.

Of note concerning the single player experience in computer games is that *Spacewar* was not intended to be a game for two people. It was a two player game only because the computer "did not have enough processing power to create the artificial intelligence required to pilot one of the rockets" (Kent). The M.I.T. engineers who developed the game would have preferred an artificial opponent over a human opponent!

Why was "seeking a new use for television sets" a priority for the military contractors at Sanders Associates? While there is no concrete evidence as to what the firm was looking for, one can imagine that they felt that the manipulation of objects on a video screen was of some use to the military, perhaps in training exercises. The fit is natural: manipulation of virtual objects is about the domination of a virtual environment, and the business of the military is the business of domination.

While war games such as chess are thousands of years old, the first complex modern war games were developed by the Prussian military in the 19th century for "training, planning and testing military operations." These exercises were crucial to the Prussian pursuit of the unification of Germany, and were kept secret until the end German unification in 1871. However, it was during World War II that scientific techniques such as systems analysis were applied to war games. The first modern commercial war game based on military simulation technique was a game called *Tactics*, released in 1953 by Charles S. Roberts. The paper war game industry grew from selling

almost no units in the late 1950s to peaking at sales of 2.2 million units a year in 1980, the year that computer war games entered the market. (Dunnigan ch. 5)

Traditional military war games led to fantasy and science fiction variants, the most famous of these being *Dungeons & Dragons*, a game played largely by white, middle-class males and especially popular on the campuses of technology-oriented educational institutions. The influence of *Dungeons & Dragons* on the video game industry is denied by no historian. Modern video games are derived both from solitary engineers building novelties with excess military funding and from the paper war games with their origins in the military training operations of Otto Von Bismarck's Prussian army. Dunnigan goes so far as to say that "it is quite possible that some form of war game existed before the first organized war" (Dunnigan ch. 5). If this is the case, then early war games were not abstractions of war as experience by early humans. The war games actually enabled the human mind to conceive of war as an organized affair, providing an abstract ideal for humanity to reach, an ideal of orderly and professional warfare.

In fact, leisure game developers and military war game developers have been feeding each other ideas directly and indirectly throughout history. The U.S. Department of Defense has been developing war games since World War II, and we can see a distinct acceleration of this symbiotic relationship in the 20th century, specifically since the 1980s. Dunnigan himself founded Simulations Publications, Inc. (SPI) in 1969, and became the major player in consumer war gaming for the next ten years. SPI's 1976 game *Firefight* was a collaboration between Dunnigan and the U.S. Army Infantry School. The game was used in war college and later published commercially by SPI. Yet the relation went in both directions: the U.S. Army war colleges used SPI's hyper-realistic

commercial games to train future soldiers, as well (Lenoir, Costikyan 1996). Over the next decade, the U.S. military switched to computer war games, gradually using the games not only for training but also for prediction of actual war scenarios. A portion of General Norman Schwarzkopf's 1992 memoir *It Doesn't Take a Hero*, regarding a military computer game simulation of the Gulf War and the real war itself, is worth quoting at length.

> "We played Internal Look in late July 1990, setting up a mock headquarters complete with computers and communication gear at Eglin Air Force Base in the Florida panhandle. As the exercise got under way, the movements of Iraq's real-world ground and air forces eerily paralleled the imaginary scenario of the game....As the war game began, the message center also passed along routine intelligence bulletins about the real Middle East. Those concerning Iraq were so similar to the game dispatches that the message center ended up having to stamp the fictional reports with a prominent disclaimer: 'Exercise Only.'" (quoted in Lenoir 8)

Into the 1990s, the U.S. military increasingly relied on commercial 3D graphics companies to provide the display technology needed for higher resolution 3D war simulations (Lenoir 23). As the technology required for military simulation and video game creation converged, people in the military and in the video games sector have found it increasingly easy to move fluidly between the two fields.

In 1996 a group of U.S. Marine Corps simulation specialists created *Marine Doom*, a modification of the wildly successful commercial first-person shooter (FPS) *Doom*. In *Doom*, the players hunt down monsters through a maze in a science-fiction firefight of guns and explosions. Anyone who already owned the commercial game *Doom* could download a free copy of *Marine Doom*, which modified the content and code of the original game. The new version incorporated real-world weapons, replaced

the monsters of the original with human enemy soldiers, and added tactical elements including "fighting holes, bunkers, tactical wire, 'the fog of war,' and friendly fire. [...] You too can become a military assault commando" (Lenoir 28).

In today's game industry there is much direct collaboration with the military. *America's Army* is a multiplayer online FPS which was developed by the U.S. Army using game development studios, including Tom Clancy's company Red Storm Entertainment, as contractors. BBN, Inc., the principle developer of the ARPAnet, contracts game developers to create military simulations. Military-themed games trumpet their realism, usually indicating somewhere in their advertisements that they have employed military consultants to sweat over the details of the realism. In October of 2004, the first annual D.C. Serious Games Summit was held in Washington, D.C. The conference was sponsored by the U.S. Army and by Breakaway Ltd., a game company that has paved the way for a new business model of half commercial games, half games for clients (including corporations and the military). The keynote speaker at the conference was none other than Jim Dunnigan.

The recent integration of commercial games and military interests has depended largely on the genre of video game known as the first person shooter (FPS). *Doom*, its modification *Marine Doom*, *America's Army*, and indeed most best-selling military-themed games all follow the FPS model. The concept of an FPS is simple: an FPS is a 3D game with a first-person viewpoint where you shoot people. In the context of video games, a first-person point of view means that the player ostensibly inhabits the body of the main character of the game. Instead of watching a character move across the screen, the player sees the world through the eyes of the character. In an FPS, the typical rule of

the day is "shoot anything that moves" and the bottom of the screen is always occupied by the player's hand, holding a gun.

One of the reasons for the popularity of the FPS is the popularity of an associated game mode, known as "death match." Death match was invented by John Romero of iD Software in 1994 for the game *Doom*. Players connect to a server which hosts a virtual space; in this space, the players fight each other, every player for him or her self. Each time player A kills player B, A gets a "kill" point and B is instantly resurrected to fight again. The winner is usually the person who first reaches a set number of kills, or the person with the most kills after a set period of time.

This highly militarized form of game that is essentially a killing simulator from the perspective of the killer quickly became one of the most popular video game genres, To this day, the FPS is consistently a best-selling genre, with FPS games like *Halo 2* earning $125 million on the first day of sales (Morris).

How does this radically militarized entertainment experience transform the player? Game designer Ernest Adams has noted the striking similarity between death match and the Norse Valhalla, the warrior paradise of never-ending battle, where those who die are resurrected to fight again for all eternity. But phenomenology can shed light on how the FPS genre affects the subjectivity of the player.

V. Spectatorial Consciousness in *Half-Life 2*

Half-Life 2 is the sequel to one of the most successful FPS games of all time, about a man fighting his way through an Orwellian Earth dominated by alien overlords. While much of the gaming press has hailed *Half-Life 2* as a revolution in the FPS genre, it is most certainly still an FPS at its core. Thus it possesses the essential elements of the genre: a view through the eyes of a single character, the ability to shoot things, and the attendant floating gun-hand at the bottom of the screen.

Much of the "revolution" of *Half-Life 2* is a revolution in the domination of environment, an especially important feature of the newest FPS games on the market. In early games like *Doom*, the environment existed only as a structure to conceal oneself (or one's enemies), as in a maze. Due to recent technological advances in game physics such as the Havok engine, we now not only have domination of space through exploration, but in fact physical objects in the game world are more and more being used as means to ends. In *Half-Life 2*, the player is given a "gravity gun," which allows the player to manipulate physical objects in the environment. For example, the player can grab a large table with the gun and launch it towards an enemy, use it to construct a bridge over an obstacle, or any other activity the player sees fit. In other words, the whole environment of *Half-Life 2* is a means to an end. Incidentally, the "gravity gun" is the "killer application" of the game, meaning that this unprecedented domination of the game's environment is a major incentive for players to purchase the game.

In the Spring of 2005, a debate occurred during a talk given by a faculty candidate for the Interactive Media and Game Development major at WPI. The faculty were attempting to engage the candidate in a discussion of some of the social and cultural

ramifications of the way we model the human body in video games. The human body is modeled as is any other object in a game; the artists break down the body into components and in turn break the components into "polys," which are triangular abstractions. One of the attending graduate students claimed that because we spend more processing time and we use more polys modeling the human face than any other part of the body, this means that the way we model the body has some great humanistic tendency. The student used the game *Half-Life 2* as an example of such detail in facial modeling.

Yet the presence of an exquisitely detailed human model in a game like *Half-Life 2* can be about nothing except for the domination of that simulated person. This is rooted in the fact that in the game world, the player is little more than a disembodied mind with a gun—in other words, the player is a force that regards the world and then acts upon it, objectifying all that he or she encounters.

What is a disembodied mind? We say "mind over matter" when we want someone to master the physical limitations of the body using sheer force of will, of mind. Yet the separation of mind and matter is a Western conceit with historical origins as recent as 1500 years ago. The Catholic theologian Augustine (354-430 C.E.), sought to prove that "God is to be found not just in the world but also and more importantly at the very foundations of the person" (Taylor 134). He speaks of a radical reflexivity: the new idea that by observing oneself, the self can know, and in doing so become closer to, God. Augustine introduced to Western thought the concept of the first person standpoint as a fundamental philosophical cornerstone: knowledge of God could be found in the self. While the modern mind may find it difficult to conceive of a world not based in a strong

first person view, it is instructive to remember that prior to Augustine, philosophers spoke of a concern *for* the self, but never of knowledge derived *from* the self.

Descartes (1596-1650 C.E.) builds off of Augustine's idea of a radical reflexivity and turns it into something entirely new, something that would "prepare the ground for modern unbelief" (Taylor 158). Descartes proposes a separation of mind (or idea, or soul) from matter. The two exist separately, but do interact with one another.

Matter, or *res extensa*, is homogenous throughout. Matter is capable of transformation, even to the point where

> if God had given the world in the beginning no other form but chaos, and had only established the laws of nature and given his concurrence for the world to behave as it usually does, one can believe, without injustice to the miracle of creation, that all material objects could have become, in time, such as we see them at present. (Descartes 34)

Descartes presents the modern view of matter, of a clockwork universe. There is nothing special or Godly about matter. Furthermore, "God formed the body of a man just like our own ... without using in its composition any matter but that which" the inanimate objects and soulless animals are made of (Descartes 34). So there is nothing special about our bodies, either.

Mind is not homogenous. There exist both perfect and imperfect mind: God and human, respectively. But the basic idea is that mind is capable of interfacing with God because it exists in the same form. The body has nothing to do with God whatsoever: it exists with all the rabbits and trees and stones that are below God and the human mind. As such, Descartes urges an ethical system wherein true morality is reached via "disengagement from the world and body and the assumption of an instrumental stance towards them" (Taylor 155). We must use our superior human faculty of reason and treat

our bodies and the world as subservient objects for our own analysis so that we may better understand ourselves and God.

In terms of phenomenology, the player is literally a disembodied consciousness, a subject with no body. This is because in the game world of an FPS, the player literally has no body; the player can be hurt, but the only physical manifestations of a player's existence are the player's dominance of the world and the player's floating hand, which is always holding a gun. There is no awareness of self built into the game: there is only awareness of how the player can dominate enemies and dominate the environment, as the three actions a player can take are to move, to shoot, and to manipulate objects. In fact, this lack of a self in a game begins to show with even greater force when we take apart the game and examine its code. A sizable community dedicated to modifying the code and the art in *Half-Life 2* to make new games has existed since even before the game was released to consumers. The members of this community have many different ideas as to how they would like to modify the game, yet many would-be "modders" were disheartened to learn an ontological truth about the game world: no model exists for the player, except as a floating viewpoint with a gun-hand. This severely limits all sorts of modification ideas. Objects cannot graze the player's arm. The player cannot gesticulate during conversation, or make a face. The player cannot dance. While there are many things that the player cannot do as a result of this self-less ontology, the player can certainly manipulate objects and people in the environment to do gesticulate, make a face, or dance. Modders found out that the fundamental reality of the game world precludes almost any action that is not a direct manipulation of the world itself.

The spectatorial, manipulating consciousness of the first person shooter as seen in *Half-Life 2* uncritically mirrors and hence supports the instrumental stance of the scientific and industrial world that leads to humanity's domination of environment, of the life world, and of fellow humans.

VI. Time-Space Compression

Time and space are inextricably bound up with one another, and are not objective in any sense of the word. Science has known this since Einstein forced scientists to strike any notion of objective time from empirical reality early in the 20th century. And yet individual humans seem to simultaneously grasp and avoid this view of subjective time and space. On the one hand, the individual tends to intellectually conceptualize time as a linear progression of seconds, minutes, or hours. But on the other hand, the modern individual has an acute sense of the pliancy of time and space. Five minutes in the waiting room of a doctor's office feels like fifty minutes. Three hours at a party feels like one hour—a point especially pertinent to video games; i.e., time flies when you're having fun. Telecommunications and aerospace technologies have obliterated spatial boundaries in countless meaningful ways. Time and space even encroach upon one another's domains: the morning commute does not exist as space to be traveled through, but rather as a time-obstacle between breakfast and the start of the workday. (No one talks about how many miles they commute, while everyone keeps meticulous track of making "good time" or "bad time" on the road.) Furthermore, almost any member of modern society is at least dimly aware of a general acceleration of time. The years seem to go by faster than they used to, people feel more rushed with each passing day; some interpret this as a sign of impending doom; others see this as a "coming to a head," a sign of spiritual or technological transcendence within reach. Regardless of one's interpretation of these phenomena, most people can agree that while they 'know' that time is linear, it certainly does not *feel* that way. What most people don't realize is that these phenomena are historical in nature.

The final turning of American society from an agrarian culture into a capitalist and industrialist culture took place in the early 20th century. City population counts were once and for all overtaking countryside population counts, and more people worked in factories than on farms. This final domination of industrialism and capitalism over the American cultural landscape brought with it new senses of time and space. Henry Ford's first assembly line in 1913 was bracketed by Einstein's two papers on relativity in 1905 and 1916 (Harvey 266). While Einstein was reshaping space and time for science, Ford was fragmenting the work space. The work space used to be a desk, where a single crafter worked on a single object of labor; the new assembly line divided space into tasks and assigned workers to these task-spaces, and the workers could be interchanged easily. Instead of a work space belonging to an individual chosen for his or her skill, Ford created a work space dedicated to a single task. The space could no longer be identified with the individual, so the individual could no longer identify with the space. Ford's work space belonged to tasks, not to people, and the fragmentation of space contributed heavily to the worker's alienation from labor. By Ford's time, factory culture had even changed the way we educate children, creating a learning environment regimented in time and space, with assigned seats and the same subjects-by-the-hour schedule every day. In the same year as Ford's first assembly line, the Eiffel Tower sent the first worldwide radio signal; that first global, wireless, light speed communication collapsed the world to a single point (Harvey 266).

By the 1960s, the ubiquity of instant communication led to the omnipresence of capitalism, even in the 'private' home. Not only did the radio and television peddle new throwaway technologies such as plastics, but the media peddled throwaway values and

identities as well. (Harvey 286). First came the concepts of throwaway goods, then the related concept of throwaway aesthetics (new fashions for a new season). Disposable aesthetics led to disposable identities. These disposable identities were bolstered by the collapse of space; car culture, new highway systems, and expanding suburbs suddenly meant that the concept of moving away and starting a new life was no longer a pipe dream. The homogenization of American communities allowed such fluid movement, as relationships with people and places became interchangeable as well. With a new deluge of information, rapid shifts in personal values became possible. This of course continues to the present day. A single pithy example: we have a large portion of the Internet dedicated to social networks and finding new friends based on the results of search algorithms. Finding new life partners is no longer a case of "there are other fish in the sea." The metaphor is now closer to "there are factory-farmed fish sitting in aisle 10 at the supermarket waiting to be consumed."

The modern individual is "forced to cope with disposability, novelty, and the prospects for instant obsolescence" (Harvey 286). In fact, this disposable culture is reflected in the very structure of the game industry itself: in 2004, only 3.4% of game developers report working with anyone who has more than 10 years of experience in the industry (IGDA). Not surprisingly, we can witness this annihilation of space and time in the video games themselves. The following section illustrates this annihilation in one of the most popular game series of all time.

Time-Space Compression in *The Sims 2*

Andrew Feenberg's wonderful *Critical Theory of Technology* contains a passage that resonated strongly with a recent trend in video games. According to Feenberg, in a

machine society, we encounter the "new narcissism," which is an "intensified pursuit of personal pleasure by individuals who have less identity than ever before." Via "the collapse of public [and family] life" the "individual becomes a discontented spectator on his or her own life, engaged in strategies of manipulation and control directed toward the self and others alike [...] the subject [is] now in the position of programmed device, now in the position of programmer." (98)

This passage resonates strongly with *The Sims*, and more precisely its sequel, *The Sims 2*, both a part of the famous series of people simulators or virtual dollhouses created by game development company Maxis. The concept central to the game design of *The Sims 2* is that of human interaction modeled as a technologically deterministic system. This can be traced back to the common design assumption that actions taken by the player should have immediate, obvious consequences. Will Wright, the Lead Designer for the original game, elaborates that "you can roughly look at all of [Maxis'] *Sim* games and divide them into one of two categories: the economic ones and the biological ones. And, in general, the economic ones have always [sold] better." Wright's game *SimEarth* involved players managing an evolving planet. The game used a very scientifically accurate model of the Earth, yet players would often find themselves confused. "The biological systems [like *SimEarth*] tend to be very soft, squishy" systems that respond in a complex, high-order manner to a player's actions. In the economic games like *The Sims*, players find it easy to "assign credit to [their] failures" and develop a strategy for winning the game. (Rouse)

A Sim is one of the simulated people that populates the game, and is the avatar through which the player interacts with the game itself. Players can control a whole

family of Sims, or to some extent a whole neighborhood of Sims. By and large, a Sim is defined by his or her actions. While a Sim has internal thoughts which are represented by thought bubbles that appear above his or her head in a cartoon style, and while a Sim has default predispositions and a "personality" (neat/sloppy, active/lazy, nice/grouchy, etc.), the strategy of the Sims comes down to *action*. This is a video game, after all.

The internal emotional life of a Sim is almost nonexistent in terms of the game model. Though Sims do have "memories," these are represented as wholly separate from the main game and it is difficult to see the impact of these on gameplay except in very slight ways. Interpersonal emotional life is reduced to the Sims pushing each other's buttons, in a literal sense. The Sims interact with objects and people in the same way: the player clicks the mouse on an object or person, and a ring of buttons appears. In the case of an object, the choices may be "eat," "drink," "use," or some similar action whose context depends on the object itself. In the case of another Sim, buttons include actions such as "play," "chat," "irritate," "flirt," "hug," "entertain," and so on. That Sim may or may not refuse to participate in your action. So Bob's interaction with Ming is walking up to Ming and in effect pushing the "chat" button.

The other important characteristic of a Sim's actions is that the actions are queued up. If the player says, "eat lunch, trim the weeds, study cooking, go to bed," the four actions are indicated in a queue at the top of the screen in the order in which they were assigned, and the Sim proceeds to carry out the actions. It is possible to plan a Sim's entire day like this, although the difficulty of dealing with spontaneous events makes this an unadvisable game strategy.

A Sim's intrapersonal emotional state is represented through the use of a number of status bars. These bars represent concepts such as "hunger," "bladder," "energy," "fun," and so on. If a Sim isn't fed, his or her "hunger" meter goes down. By the end of a busy day, a Sim's "energy" meter is low, and can only be replenished by sleeping or drinking coffee.

In addition to status bars, the Sim's behavior is dictated by "wants." Every morning, the Sim wakes up with a new series of "wants," which represent short-term or long-term goals. The goals can be simple desires such as "eat a bowl of cereal." However, most wants are based on career, relationships, self-improvement, or consumerism; respectively, a Sim might want to get a promotion, to tell a joke to her friend George, to improve her creative skills, or to buy a table costing at least $1,000. If you achieve a "want" in the course of a day, your Sim gets "reward points" which can be saved up to spend on fantastic rewards, like a pair of glasses that make the socially awkward cool, or a money tree, or a fountain of youth. Relationships are measured in a similar way. There are status bars for long-term and short-term relations; if you have a spat with your best friend, short-term will read low but long-term will still read high.

Thus is the automated life of a Sim. Happiness is typically achieved either through Feenberg's "manipulation and control directed toward the self and others" or, more subtly, through the Sim's mastery of his or her environment—the house in which the Sim lives.

While the ramifications of the automation and inherent consumerism of the Sims has been a topic of discussion on many Internet forums, possibly the most important aspect of the game remains the most overlooked: the control of time. Perhaps this feature

has been glossed over simply because it was inherited from earlier Maxis games like SimCity. Perhaps the feature is treated as such a natural part of the game that it only registers subconsciously; or it is possible that the "human" features of the game necessarily steal the spotlight in the context of any critical discussion of *The Sims 2*.

Figure 3. A typical day in *The Sims 2*, paused for your convenience.

Whatever the reason for its low profile, player control of time in *The Sims 2* is critical to the flow and structure of the game. The mechanic for time control is simple: in the lower left-hand corner of the screen are four VCR-style buttons. These buttons pause the game, allow for a normal playing speed, a fast speed, and a faster speed. The buttons serve two functions. First, the pause button is used to allow the player to queue up more actions for the Sim to complete without wasting any time in between. The Sim wakes up in the morning, the player pauses the game, and orders: use the toilet, take a shower, change your outfit, eat breakfast, read the newspaper, go to work. Then the game is set to normal speed, and the player watches the Sim carry out these pre-programmed actions. However, watching the Sim's morning routine can be boring, and here is where we meet

the second functionality of the time buttons: skipping over boring actions. As soon as the Sim starts the morning actions, the player can hit the button for fastest speed, and now the morning routine is compressed from what might be 5 minutes of the player's time to about 10 seconds.

When combined with the queuing of actions, pausing and time compression will lead to the player developing strategies for attaining happiness entirely unlike those a person in real life would undertake. One such strategy is building strong relationships in a day. Bob invites his acquaintance Ming over in the morning. The game is paused, and the player queues up: "chat with Ming, tell joke to Ming, admire Ming, chat with Ming, chat with Ming, play with Ming, tell joke to Ming, serve lunch, chat with Ming, play with Ming, use the toilet," and so on. Once a sufficient number of actions is queued, the player can then hit the fastest time compression button, and in the course of one minute of play, Ming has become the player's friend.

Strangely, the game automatically pauses time whenever the player wishes to purchase a product for a Sim. If the Sim indicates that she wants an exercise machine costing more than $500, the player clicks on the "buy" icon. In a scene reminiscent of the movie *Fight Club*, time freezes and all items in the house, upon a examination, have a price tag attached to them, indicating what model they are and how much they can be sold for. Additionally, a window appears that emulates the behavior of online furniture, clothing, and media catalogues—a kind of Amazon.com for the Sims. In the world of *The Sims*, purchasing a commodity is painless process with no cost to the efficiency of a person's day. As soon as the desire manifests, the need can be fulfilled (provided the Sim has enough capital).

The simulated world in which the Sims live is precisely the postmodern lifestyle of "disposability, novelty, and [...] instant obsolescence" postulated by Harvey, taken to a logical, inevitable extreme. The game gives the player control over time to more efficiently allocate consciousness of actions. The game collapses space by allowing any and all friends of a Sim to show up at the house exactly 5 minutes from when they are invited (provided that the invitee is not engaged in wage slavery, which engenders an irritated refusal from the invitee).

VII. Eros and *Civilization 3*

Game designers, reviewers, and players like to talk about games being "fun," particularly as products that produce fun for the player. Marcuse has his own definition of fun: he says that fun is the sublimation of libido, our instinctual urges. Before the vast mechanization of society, human beings possessed authentic modes of sublimating libidinal desires. In this pre-industrial society, humans experienced a vast and rich libidinal landscape: hand crafts, home cooking, traveling *in* the environment rather than *through* it (the latter being the pseudo-travel of the spectator). In the modern world, our modes of sublimation are categorized and commoditized. Yes, one may go for a hike in the mountains, but it must be on a trail in a designated park area, and can only be on your day off from work. In fact, we are allowed more sexual and libidinal expression than ever before, but this is only because libidinal expression has become an industry in and of itself. "The range of socially permissible and desirable satisfaction is greatly enlarged, but through this satisfaction, [...] Pleasure, thus adjusted, generates submission" (Marcuse 1964). By allowing our libido safe places and activities to "blow off steam," we uphold the status quo by freeing ourselves of the unhappiness that would be the typical symptom of living in an oppressive society—the classical example of bread and circuses comes to mind.

These safe methods of blowing off steam are the province of the privileged Western classes that have access to "leisure time" afforded by wide-scale mechanization. In these arenas of leisure time and safe libidinal expression, we experience what Marcuse calls the "happy consciousness," that same consciousness which allows us to take a vacation package to a third-world country and somehow not notice the rampant and

blatant domination of the local population and environment. Authentic sublimation of libido frees the desires while calling attention to the society's oppression of the very same desires, whereas what is known as repressive desublimation censors that knowledge of oppression. The happy consciousness spends its leisure time experiencing repressive desublimation, and many members of privileged Western classes choose to spend their leisure time as consumers of video games.

The happy consciousness "arranges games with death and disfiguration in which fun, team work, and strategic importance mix in rewarding social harmony" (Marcuse 1964). Marcuse uses the RAND corporation's SAFE war game from the early 1960s to illustrate a game wherein death, destruction, and domination are all transformed and reduced, through the power of abstraction, to something socially acceptable. The "world becomes a map, missiles merely symbols (long live the soothing power of symbolism!), and wars just (just) plans and calculations written down on paper" (Marcuse 1964).

Figure 4. A scene from Civilization 3.

RAND's SAFE game, which was played in a conference room on a physical map, is very similar to *Civilization 3*, the third game in a popular series of computer strategy games dating back to 1991. The *Civilization* series belongs to the genre of game known to hard core gamers as "4X," which stands for the following prime directives: explore the world, expand your empire, exploit resources, and exterminate your enemies. In this game, the very concept of human civilization has been reduced to these four principles of domination. The lifeblood of *Civilization* is the advance of technology: any player of the game will tell you that in order to be a successful civilization, one must ably "navigate the tech tree" by constantly developing new technologies faster than other civilizations can. The game series has also always included artistic achievements that a civilization can produce, such as the Wonders of the World. But these serve a dual purpose: they stand as testaments to a civilization's domination over the world, and these artistic achievements actually help a civilization achieve further dominance by providing more military, industrial, or scientific power[5]. *Civilization* is partly a war game in Dunnigan's sense, and partly a game about science and industry. However, military, science, and industry are represented as such interlocking concepts that it becomes difficult for the player to separate the functionality of the three in his or her mind. A new agricultural discovery becomes a way to feed more workers, who in turn will build more war machines. It is important to note, however, that unlike RAND's game, there exist options for negotiation in *Civilization 3*, and it is possible for multiple civilizations to achieve a

[5] Gamers will argue that *Civilization 3* includes a nonviolent way to capture an enemy city. If a player's civilization is impressive enough—that is, it has earned enough cultural achievement points—nearby cities will joyously hand over their land, resources, and people, and join the player's empire. Of course, this domination through culture, which in today's society is marked by Pepsi and MTV as a homogenizing presence the world over, is still imperialist domination, albeit of a variety lacking in physical violence on the surface.

victory condition of world peace. Related games like *Alpha Centauri* have even attempted to incorporate spiritual transcendence and oneness with the environment into the victory conditions of a game, with sometimes brilliant results: the player navigates what amounts to a historical dialectic of philosophical ideas, eventually arriving at a philosophy of the life world that creates a humane, rational, and free society.

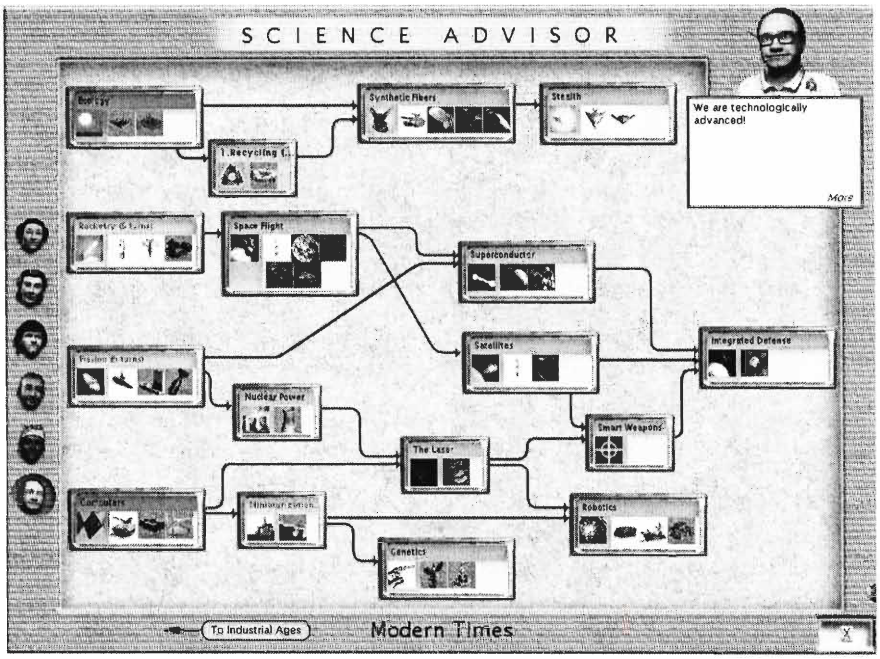

Figure 5. The *Civilization 3* tech tree.

While 4X games like *Civilization 3* are virtual spaces to dominate the world where "guilt feeling has no place, and the calculus takes care of conscience," games like *Alpha Centauri* point to possible modes of positive sublimation of libido (Marcuse 1964).

Meanwhile, it appears that *The Sims 2*, part of the best selling video game series of all time, appears to be simultaneously a *mode* of repressive desublimation and a game *about* repressive desublimation. *The Sims 2* allows players to live out a life which is not their own, a life which is the perfect simulation of the happy consciousness. A Sim does not experience any spiritual, ethical, moral, or political discomfort of any kind. The most

abstract sort of problem a Sim can have is an aesthetic problem, which can be solved by buying an expensive painting.

There is an inherent eroticism designed into the Sims, specifically in that the life of a Sim is entirely played out in the libidinal landscape. While a Sim works a job, the game effectively breaks while the Sim is at work: time compresses to the point where the only reality is the reality of "free" time: weekends and evenings after work. In fact, *The Sims 2* allows a far wider range of libidinal expression than almost any other game to date: for example, *The Sims 2* is one of the few games on the market where sex is designed into the game itself. This is fair enough, as sex is a part of human experience, and the Sims series has always been about modeling human experience. Yet we have to look at how sex is designed into the game to get a better understanding of sex as a mode of repressive desublimation.

Sex is only directly linked to a Sim's immediate wants in two ways. A Sim can be a "romantic" personality type, in which case the Sim wishes to be in many sexual relationships and tires of partners quite easily. "Romantic" would appear to be an ironic label. Sims can also be of the "family-oriented" personality type, and Sims, male or female, can want to have a baby, at which point sex can be initiated with procreation in mind. (Interestingly, since sex for pleasure, or "woo-hoo," as the game calls it, is a separate action from "try for baby," we can assume that contraceptives are being used and not used, respectively. Yet contraceptives are never mentioned once in the game—an interesting political choice by the developers.)

But how does a Sim pursue sex with another Sim? Unless the player's Sim is of the "romantic" or "family" types, sex is a purely optional activity. A Sim can pursue sex

with any adult Sim of any gender. Through the Sim's interactions with others, the Sim quite literally scores with other people, filling short- and long-term relationship meters for that person. As the scores increase, the relation becomes categorized as a combination of friend, best friend, crush, and love, depending on circumstances and scores. And thus the game is simultaneously a mode of and a simulation of repressive desublimation. While the Sim lives out a life of fun and no worries in the time slots allotted by work hours, the player can, for example, vicariously satisfy a desire to have many sexual partners that would be otherwise unattainable in real life.

VIII. Conclusion

Every truly new technology contains within it the possibility to conserve the status quo or to radically change the social hierarchy. For example, the first 25 years of the computer were marked by its use as a device to preserve bureaucracy. Indeed, the very structure of the centralized mainframe and its client terminals mirrored the hierarchy of the bureaucratic structures which it supported. The was computer was first conceived as a device for automation. Only in the last 20 years has the computer been considered a communication device, and within that classification, that way of seeing and using a computer, has its revolutionary potential been identified. Only in the last five years have we witnessed the potential of the decentralized communication network for rapid, small-scale social change. (Feenberg 92)

The video game, as a technology and as a medium, is at a similar juncture: for the last 30 years, games have reinforced the social hierarchy. Wherein lies the potential of video games for social change? Does it lie within the burgeoning "serious games" movement? Will a revolution in personal identity emerge from a massively multiplayer online role playing game? Can games provide a method of authentic sublimation? Or will video games continue to operate by alienating players, by pushing the remote violence we see on the nightly news, by promoting an instrumental stance toward reality?

Computer technology in general was not revolutionary when it was used as a means of automating the tasks of man. By developing the mechanical properties of computer technology alone, the computer industry created the conditions for "the chronic suboptimization of the technology's potential" for revolution (Zuboff, quoted in Feenberg 94). Similarly, video games that seek to provide the ultimate in entertainment realism, the

"fun" models of reality, do so by automating the tasks of man: killing, jumping, running, buying, selling. If the video game industry continues to automate "real" life without providing new verbs, we risk missing the potential of video games for positive social change.

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