

2001

# The technoludic film : images of video games in movies (1973-2001)

Matteo Bittanti  
*San Jose State University*

Follow this and additional works at: [https://scholarworks.sjsu.edu/etd\\_theses](https://scholarworks.sjsu.edu/etd_theses)

---

## Recommended Citation

Bittanti, Matteo, "The technoludic film : images of video games in movies (1973-2001)" (2001). *Master's Theses*. 2206.  
DOI: <https://doi.org/10.31979/etd.5zm6-tp83>  
[https://scholarworks.sjsu.edu/etd\\_theses/2206](https://scholarworks.sjsu.edu/etd_theses/2206)

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact [scholarworks@sjsu.edu](mailto:scholarworks@sjsu.edu).

## INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

**The quality of this reproduction is dependent upon the quality of the copy submitted.** Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

ProQuest Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
800-521-0600

UMI<sup>®</sup>



**THE TECHNOLUDIC FILM:  
IMAGES OF VIDEO GAMES IN MOVIES (1973-2001)**

**A Thesis**

**Presented to**

**The Faculty of the School of  
Journalism and Mass Communications  
San Jose State University**

**In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science**

**By Matteo Bittanti**

**December, 2001**

UMI Number: 1407282

Copyright 2001 by  
Brittanti, Matteo

All rights reserved.

UMI<sup>®</sup>

---

UMI Microform 1407282

Copyright 2002 by ProQuest Information and Learning Company.  
All rights reserved. This microform edition is protected against  
unauthorized copying under Title 17, United States Code.

---

ProQuest Information and Learning Company  
300 North Zeeb Road  
P.O. Box 1346  
Ann Arbor, MI 48106-1346

© 2001

Matteo Bittanti

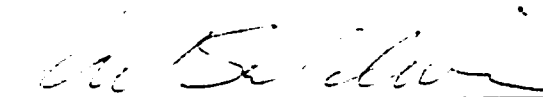
**ALL RIGHTS RESERVED**

APPROVED FOR THE SCHOOL OF JOURNALISM AND MASS  
COMMUNICATIONS



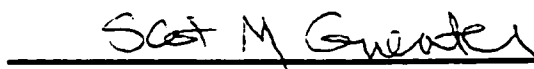
---

Dr. Diana Stover



---

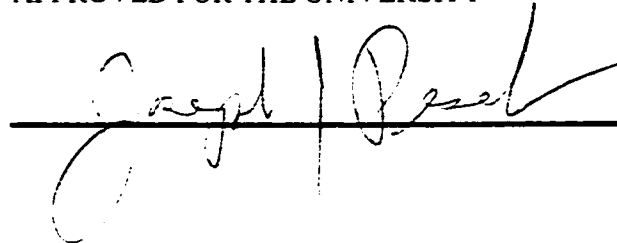
Dr. Cecilia Baldwin



---

Dr. Scot Guenter

APPROVED FOR THE UNIVERSITY



## **ABSTRACT**

### **THE TECHNOLUDIC FILM: IMAGES OF VIDEO GAMES IN FILMS (1973-2001)**

By Matteo Bittanti

This thesis explores the dialectic between video games and cinema. It analyzes how video games have been depicted, represented, and incorporated into feature-length, commercial films. The analysis focuses on 53 video game-related films produced between 1973 to 2001.

These texts were examined with respect to film genre analysis, structuralism, semiotics, and new media theory. The thesis suggests that the convergence between cinema and video games led to the emergence of a new film genre, the *technoludic* film. *Technoludic* is an umbrella term to describe films that incorporate video games in their narratives and visuals. The researcher identified four modes of intersections: *commentary, quotation, adaptation, and remediation.*

After mapping the shifting accounts of electronic gaming in cinema, the researcher concludes that there is a merging of languages, narrative strategies, and genres as video games influence films and vice versa.



## ACKNOWLEDGEMENTS

*“In the future, everyone will need to be a film critic to make sense of reality.”*

James Graham Ballard, *The kindness of women* (1991)

Many different people contributed to make me the person that I have become today, and, although I can't imagine it turning out any other way, I know that I would not have arrived here without the unyielding support of each one of them. All human experience stems from inspiration and cooperation from others. The experience of going through graduate school and reaching the end is no exception. Before mentioning individuals by name, I would like to appreciate all the unnamed people who inspired me throughout my life.

Having said that, I am immensely indebted to Professor Diana Stover for the deft ways in which she lovingly challenged and supported me during the whole process, knowing when to push and when to let up. Her sage advice, insightful criticisms, and patient encouragement aided the writing of this thesis in innumerable ways.

I would also like to thank Professors Cecilia Baldwin and Scot Guenter for their precious help and assistance. Their confidence in my abilities has been unwavering.

My gratitude also goes to John Cain, a man of culture, an excellent librarian, but, above all, a great friend. John provided me with much more than just a “writing space”:

he literally nurtured me through the last month of work. He treated me like family and I will never forget it. John is also the most Italian of the Americans I have ever met.

The list of people who deserve all my gratitude gets long at this point, and it extends far back in time. The first person I remember encouraging me in appreciating film as an art is my father, Lino. I cannot thank him enough for showing me the works of Charlie Chaplin, Harold Lloyd, and Buster Keaton on an 8mm projector when I was just a kid. I found myself mesmerized by those moving images and I guess I have not woken up from the dream. *We have come a long way, dad!* I would like to thank my mother, Luisa, who has always been a volcanic source of encouragement and inspiration to me, and my brother, Gianandrea (“Number Two”). He is not only a great companion, but also shares my insane passion for video games. My love goes to my grandmother, Luigia, who has always supported my wanderlust although that has prevented me from spending more time with her.

I am also very grateful to Alessandra, whom I met six years ago during a film class at the University of the Sacred Heart in Milan. Thank you for your affection, support, and all the other things that made it so worthwhile knowing you. Loving thanks to all my friends, but especially to Francesco Alinovi, Marcello Cangialosi, Simone Crosignani, Luca Maggiolini, Fabio Massa, Ben Parizek, Francesca Pregarra, Luca Villa, the Anemia Film Club supporters, the mighty Institute of Dubology (especially Letizia, Paolo, and Gabriele), and the crew at San José State University’s International House. Finally, I cannot forget my mentors: Stanley Baran, Gianni Canova, Francesco Casetti, Fausto Colombo, Luisella Farinotti, and Sandro Zambetti.

All of these people played different but equally important roles along the journey, as we mutually engaged in making sense of the various challenges we faced, and as we provided encouragement to one another during those times when it seemed impossible to continue. I express my gratitude to all of them for their unfailing and soothing support.

But my warmest “grazie” goes to Margot. Her love, caffeinated energy, and vibrant attitude toward life have helped me “tempo grande” to put forth my full effort.

I would not have made it without you, Micio.

As they say in Russia, “*vremya ne suschestvuet.*”

**DEDICATION**

*To my parents, Lino and Luisa.*

## TABLES OF CONTENTS

<b>Section</b>	<b>Page</b>
<b>I. CHAPTER ONE</b>	
<b>Introduction</b> .....	1
<b>II. CHAPTER TWO</b>	
<b>Literature Review</b> .....	6
<b>Historical Overview</b> .....	12
Proto-cinema and electronic entertainment.....	13
The mutoscope as the video game predecessor.....	15
Video games, virtual reality, and the cinema of the future.....	31
The DVD film-game connection.....	36
Using video games to create movies: <i>Machinima</i> .....	44
Divergences on convergence.....	45
<b>Conceptual Overview</b> .....	52
Baudrillard: The concept of simulacrum.....	53
The model of remediation.....	65
Genre criticism and structuralism.....	68
Intertextuality, transtextuality, and theory of adaptation.....	79
<b>III. CHAPTER 3</b>	
<b>Method</b> .....	92

#### IV. CHAPTER 4

<b>Results</b> .....	97
From post futurist science fiction to technoludic cinema.....	97
<i>Technoludic film as commentary</i> .....	102
Technophilia vs. technophobia.....	104
Reality vs. simulation.....	113
Real world vs. game world.....	115
The antagonism between the player and the avatar.....	132
Recurrent contrasts between game players and society at large .....	145
Battles against corporations.....	152
Conclusion.....	155
<i>Technoludic film as quotation</i> .....	158
Video games as metonym of the future.....	159
Video games as metonym of the past.....	166
Video games as lethal technology.....	166
Video games as anomie.....	168
Phenomenology of the arcade.....	171
Typologies of the video game player.....	174
Video games and the myth of the puer aeternus.....	181
Conclusion.....	185
<i>Technoludic film as adaptation</i> .....	187
The adaptation game.....	195

Conclusion.....	216
<i>Technoludic film as remediation</i> .....	220
Multi-directional narratives.....	223
Reality as simulation.....	240
Role-playing games.....	247
Video game imagery.....	249
Conclusion.....	258
<b>V. CHAPTER 5</b>	
<b>Conclusion</b> .....	259
<b>VI. REFERENCES</b> .....	
266	
<b>VII. APPENDIX</b>	
Appendix A. Filmography.....	281

## **LIST OF TABLES**

Table 1. The technoludic film: A taxonomy.....	102
Table 2. Major binary oppositions at work in the technoludic film as commentary.....	115
Table 3. Game-to-film adaptations.....	194



## CHAPTER ONE

### INTRODUCTION

Video games constitute a relatively new genre of games and a cultural form that has emerged within the context of the digital revolution. Video games lie at the intersection between electronic culture, cinema, animation, literature, toys, and traditional arts. Their role in today's culture should not be underestimated because, as Haddon (1981) suggested, video games constitute a cultural industry "akin to the film and music establishment" (p. 53).

Video games emerged as a market in the early 1970s, at a time when critics and social commentators were starting to speculate about the demise of classical cinema's hegemonic model. Moreover, the appearance of video games coincides with the decline in film audiences, a phenomenon that started in the early 1950s and that "no one has yet satisfactorily explained" (Turner, 1988, p. 14). Along with the VCR, cable, and satellite TV, video games diminished film's central role as the privileged form of entertainment.

Today, the value of the video game market is comparable to Hollywood's. The profits of blockbuster games are measured in terms of the first weekend's millions, like those of mass market movies. Sony estimates that more than 110 million PlayStation consoles have been sold worldwide since its introduction in 1994. According to the Interactive Digital Software Association (2000) sales of game consoles and software in the United States and Europe will generate more than \$17 billion worth of business a year by 2003 (Laplante & Sneider, 1999; Tapscott, 1995). International Data Corp. projects

that the sales of new game hardware and software will jump from an estimated \$11.4 billion in 2001 to \$21.1 billion by 2005 (Laplante & Sneider, 1999; Tapscott, 1995). In 1999, Americans bought more video games than books (IDSA, 2000). Ninety percent of U. S. households with children have rented or owned a video or computer game (Quittner, 1999). American universities and colleges, including Carnegie Mellon University, Massachusetts Institute of Technology, New York University, Stanford University, the Georgia Institute of Technology, and San José State University, now offer courses and programs on video game design and theory (Toyama, 2001).

Social critics, scholars, and academics have produced a series of studies aimed at illuminating the multifaceted nature of this complex phenomenon. But even today, extensive, in-depth research on the topic is suspiciously absent. As Stone (1995) wrote:

There seems no question that a significant proportion of young people will spend a significant and increasing proportion of their waking hours playing computer-based games in one form or another, and so far the implications of this trend have yet to be fully addressed in academic forums. A major obstacle appears to be the feeling on the part of many academics that computer games are beneath serious notice, a situation perhaps best characterized as holding our cocktail party in a house that is already ablaze. (p. 26)

Marshall and Morris (2000) provided one possible reason for this theoretical inadequacy: "Game culture does not fit comfortably into past forms of media analysis although there are insights about games that can be teased outwards from their relationship to visual/textual media forms" (p. 89). At the same time, Murray (1997) warned, "it would be a mistake to compare the first fruits of a new medium too directly with the accustomed yield of older media" (p. 28). J. J. Gifford (1996, ¶ 1), provocatively argued that:

Games are the genitals of the digital world: shameful but necessary, often the determining evolutionary forces. Though they are usually at the forefront of computing, pushing the hardware to its limits, they are rarely discussed seriously, except by the computer game press or the odd venture capitalist.

Discussing the state of current video game studies, Eskelinen (2001, ¶ 1) suggested that, “historically speaking, this is a bit like the 1910s in film studies; there were attractions, practices and very little understanding of what was actually going on, not to mention lots of money to be made and lost.”

A second paradox is that video games, just like virtual reality in the early 1990s, have been more widely discussed by scholars and researchers than actually experienced. It comes as no surprise, therefore, that Jenkins (2000a) urged the academic community “to take games seriously as an important new popular art shaping the aesthetic sensibility of the 21<sup>st</sup> century” (p. 43).

The purpose of this thesis is to take video games seriously, meaning in a rigorous, analytical manner, in its illumination of its relationship to cinema. Surprisingly, examinations of the interplay between film and video games are sporadic. Although such scholars as Sobchack (1987), Bukatman (1993), Landon (1992), Wolf (1997), and Desser (2000), have written that films are being influenced more and more by video games, none has actually published a systematical analysis of the available texts.

The goal of this thesis is to discuss, explore, and investigate the convergence between cinema and video games. It assumes that two media are not simply intersecting: They are converging at different levels. Aesthetically, their boundaries are becoming increasingly permeable: As video games are becoming cinematic, films are beginning to look increasingly gamelike. In this regard, Bolter and Grusin (1999) suggested that

“film, the most important artform of the twentieth century . . . is especially challenged by new media,” and, “as computer games seek to borrow the cachet of cinema by styling themselves as interactive film, so Hollywood cinema is trying to co-opt our culture’s fascination with new media by using digital graphics to refashion linear films” (p. 146).

Game theorist Poole (2000) noted that “as their powers of graphic realization have increased, video games have begun superficially to look a bit more like films, while films have become more interested in video games as visual furnishings and conceptual subject matter” (p. 71). Conversely, film critic Newman (2001) noted:

Game designers, many of whom can count on the kinds of budgets normally reserved for film blockbusters, rely on the visual vocabulary developed by movies to create their worlds. And as cinema goes digital, more and more films replicate the kinetic elasticity of gameplay, staging sequences, such as the fights in *The Matrix*, that would have been impossible before CGI. (p. 4)

This thesis is aimed at filling a theoretical gap. It will attempt to critically analyze how electronic entertainment has been incorporated, represented, and depicted in contemporary popular films.

This argument will be developed in four stages.

After reviewing the available literature on video games (Chapter Two), with special attention given to contributions relating to their relationship with cinema, the dialectic between the two media will be historically and culturally contextualized (historical overview). This section will illustrate how the language, modes of consumption, and stylistic conventions of video games rely on more traditional forms of expression, specifically cinema. In particular, by emphasizing the numerous parallels between the history and development of the two media, this section concludes that video

games have inherited some of the features originally found in the earliest manifestations of cinema.

The historical discussion into film and video game history is followed by a review of some of the conceptual tools used in the examination of the dialectic between cinema and video games. Specifically, the conceptual overview section focuses on Baudrillard's concept of the simulacrum, Bolter's and Grusin's model of remediation, semiotics, and literary studies. Concepts reviewed in this part will become the building blocks for the analyses of the films.

The next step (Chapter Three) consists in the establishment of a multidisciplinary method of analysis. Since film and video game are ostensibly different media, more than one approach is necessary to fully understand the dynamics of their convergence.

The discussion on the roles and functions of video games in movies relied on film genre analysis, structuralism, new media theory, and semiotics.

Chapter Four (results), suggests that the dialectic between film and video games led to the emergence of the *technoludic* film, a new, hybrid genre that relates to video games by using four different modes of representation: commentary, quotation, remediation, and adaptation. The study takes into account issues pertaining to both the aesthetics and content of video game-related films. The technoludic film as a genre is explored both in general and in specific analysis of individual titles.

The research shows that there is a merging of languages, narrative strategies, and genres as video games influence films and film influence games. The technoludic film represents the outcome of the interplay and integration between cinema and games.

## CHAPTER TWO

### LITERATURE REVIEW

A video game is an electronic game played by means of images on a video screen. It is a computer-based form of entertainment that can be enjoyed by one or multiple users on electronic platforms such as a personal computer or a console.

As one of the more noticeable manifestations of new media technology, video games have attracted a significant deal of attention in recent years, both from the popular press, and from intellectuals. More specifically, the academic research on the subject has focused on five major areas:

1. Effects (social, physical, and psychological) of video games.
2. The construction of identity in simulated environments.
3. Video games as interactive storytelling.
4. Video games as a manifestation of popular culture.
5. The historical development and evolution of video games.

Psychologists and social scientists have provided by far the largest pool of literature about video games during the last 20 years. Their work consists mainly of empirical studies on the effects of video game consumption and the relationship between simulated space and real life. One of the pioneering works in this area of inquiry is Greenfield's *Mind and media: The effects of television, video games, and computers* (1984). More recently, Scott (1995) conducted a research specifically aimed at investigating "to what extent, if any, aggressive computer game playing would have on individuals of different personality composition, and in which particular aspects of

aggressiveness this might be experienced” (p. 122). Social scientists have been looking for possible links between video games consumption and anti-social behavior. After the 1999 Columbine High School massacre in Littleton, CO, several stories emphasized the fact that the murderers consumed violent video games, thus, researchers tried to find a causal relationship between video game consumption and aggressive behavior (see, in particular, Grossman, 1999).

Most of this research is based on the experimental tradition of media effects analysis, which, in turn, rely on quantitative analysis (i.e., laboratory experiments) in which hypotheses are tested. The limitations of this method have been covered extensively by scholars such as Hall (1982), Lowery and DeFleur (1983), and others.

Similarly, because the background of so many critical analyses of games comes from film and television studies, it makes sense that there have been only moderately successful attempts at overlaying theories of the subject and narrative for working out the dynamics of gameplay.

A second approach examines the construction of identity in simulated environments, the changing notion of selfhood, the representation of self in online games, and the issue of gender. For instance, utilizing theories derived from poststructuralism, Alloway and Gilbert (1998) explored the relationship between computer games and notions of masculinity, arguing that simplistic concepts of effects dramatically underestimate the sophistication of readers. Analogously, Beavis (1998) argued that it is necessary to comprehensibly investigate the relationship between players and games before engaging in any debates about the social benefits or dangers of the medium. Also,

many academic studies discussed the phenomenon of identity in online role-playing games and MOO/MUD-based virtual communities. For an introduction to this topic, see Rheingold (1991), Turkle (1984, 1995), Stone (1991, 1995), Mitchell (1995), Reid (1995), Ciskowski and Benedikt (1995), Shaw and Romine (1995), and Bromberg (1996).

In *The Second Self: Computers and the Human Spirit* (1984), Turkle used an ethnographic approach to explore computer users' multiple relationships with their machines. In *Life on the Screen* (1995), this licensed clinical psychologist MIT docent expanded her exploration by researching users' identities within networked computers, or, to be more specific, the Internet. Turkle explored the implications of contemporary society's shift from a culture of computation toward a baudrillardian culture of simulation. She also provided an illuminating examination of Will Wright's video games.

Wide-ranging analyses of gender and video games can be found in Kaplans (1983), Stone (1995), Fleming (1996), and Jenkins & Cassell (1998). While analyzing the relationship between gender and video games, some of these authors raised the concern that the game industry is limited to the problems associated with a narrowly defined masculine identity. Fleming, in particular, observed that "this remarkable technology could support a much richer play space and with it a position less rigidly tied to a simplistically projected male identity" (p. 57). He suggested that, since the symbolic content of games tells very little about the experience of gaming itself, it becomes crucial



to shifting one's attention from the meanings of cultural objects to their status as events (pp. 11-16).

The third approach is represented by the scholars who have explored the specific dynamics of video games as a form of interactive storytelling. Murray (1997), for instance, investigated the narrative of adventure and role-playing games in comparison to traditional texts such as novels and films. She discussed the concept of the "multiform story," which is defined as "a written or dramatic narrative that presents a single situation or plot in multiple versions that would be mutually exclusive in our ordinary experience" (p 30). The multiform story can be found and used in heterogeneous texts such as films, novels, and electronic entertainment. In this context, video games are considered the barthesian writerly text *par excellence*. In *S/Z*, Barthes posited a distinction between the readerly and the writerly text, where the former is to be considered the traditional text completed, fixed, and contained with its own aesthetic space, while the latter is a form of text that demands one's participation and makes interaction possible by the peculiar nature of its construction.

Other relevant contributions on this topic can be found in Friedman (1995) and especially Crawford, whose *Understanding Interactivity* (2001) represents an important step in investigating the idiosyncrasies of electronic entertainment. Crawford provided an interesting investigation of the textual characteristics of the game medium, and the dynamics of interaction. Identifying and analyzing the structural characteristics of the electronic medium could develop a broader dialogue on the socio-cultural implications of game playing.

Many authors used semiotics and literary theory to discuss video games. For instance, in a seminal essay, Eugeni (1998) discussed the structure and signification of the popular adventure game *Myst*. Other relevant contributions on the concept of interactive storytelling are Ryan's (1991, 1999, 2000) and Aarseth's (1997). The latter, in particular, discussed video games as an example of cybertexts and ergodic literature, where ergodic is "a term appropriated from physics that derives from the Greek words *ergon* and *hodos*, meaning 'work' and 'path.' In ergodic literature, nontrivial effort is required to allow the reader to traverse the text" (p. 12).

Aarseth is also the editor-in-chief of *Game Studies*, "the first academic, peer-reviewed journal dedicated to computer game studies," which debuted online in July of 2001.

Referring to the popular culture approach to video games, Darley noted, "Digital entertainment, from video games to simulation rides, is now a central feature of popular culture" (2001, p. 14). There is a significant degree of literature on video games as vehicles for popular culture. In this context, they are compared to more traditional cultural artifacts such as books, film, cartoons, comics, and music, yet it is generally recognized that they present specific structural constraints (and freedoms) that make them a unique expression.

Today, Henry Jenkins is one of the most vibrant advocates of video games as a relevant manifestation of popular culture. Recalling George Seldes' seminal study, *The Seven Lively Arts* (1924), the MIT professor recently suggested that "games represent a new lively art, one as appropriate for the digital age as those earlier media were for the

machine age” (p. 117). Video games as popular culture texts have also been investigated by Smith (1983), Skirrow (1986), Selnow (1984, 1987), Fiske (1989), Kinder (1990), Fuller, (1995), Schroeder (1996), and Stallabras (1993).

Poole (2000) focused on the aesthetics of electronic entertainment. In *Trigger Happy* (2000) Poole tried to define the essence of the medium and concluded that “the inner life of video games—how they work—is bound up with the inner life of the player. And the player’s response to a well-designed video game is, in part, the same sort of response he or she has to a film, or to a painting: It is an aesthetic one.”

Finally, many authors have attempted the task of charting the origins, history, and evolution of video games, although most of them are non-academics. Some of the most interesting works in this category can be found in Buckwalter (1977), Cohen, (1982), Le Diberder & Le Diberder (1993), Sheff (1993, 1994), Levy (1994), Herz (1997), Herman (2001), Kent (2001). There are also pictorial chronicles of video games (see Faber, 1998; Gielens, 2000; Sellers, 2001; Burnham, 2001) and analysis of video games as sophisticated toys (Fleming, 1996; and Pesce, 2000, for example).

These historical accounts of the video game phenomenon are especially valuable as they reduce the mytopoietic, legendary dimension of video game technology in contemporary cultural imagination and shed light on their origins and development.

Moreover, they clearly illustrate that video games are in constant, one dares say frantic, state of transformation and evolution, which might also explain about the difficulty of theorizing their inner and outer mechanisms of signification.

As this brief overview illustrates, academic studies on video games are still in their infancy. Topics such as the dialectic between video games and film have received only a cursory attention by scholars. Before exploring the topic in its specificity, it will be necessary to clarify and contextualize the dynamics of their convergence.

The following section will illustrate how the language, modes of consumption, and stylistic conventions of video games rely on cinema. By emphasizing the numerous parallels between cinema history and video games history, it will be argued that video games inherited early cinema's cultural heritage.

### ***Historical Overview***

According to Jenkins (2001, p. 78), "media convergence is an ongoing process, occurring at various intersections of media technologies, industries, content, and audiences; it's not an end state." This process is occurring on at least five different levels: technological (the "digitization of all media content"), economical (increasing horizontal integration of the entertainment industry that led to restructuring of cultural production around "synergies," and "transmedia exploitation of branded properties such as *Pokémon*, *Harry Potter*, *Tomb Raider*, *Star Wars*"); social or organic (that is, "the consumers' multitasking strategies for navigating the new information environment"); cultural ("the explosion of new forms of creativity at the intersections of various media technologies, industries, and consumers" which, in return, fosters the advent of "transmedia storytelling, the development of content across multiple channels"); and, finally, global convergence ("the cultural hybridity that results from the international circulation of media content).

The ongoing convergence between cinema and video game incorporates all of these dynamics. Though a full-scale analysis would transcend the scope of this paper, it will be nonetheless helpful to underline a few aspects of this conflation.

At the same time, it is important to stress that this phenomenon is not really new, since film and video games share a strikingly similar historical background.

***Proto-cinema and electronic entertainment.*** Cinema and video games are technologies of illusion. They aspire at representing, reinventing, and redefining reality for commercial and artistic purposes. They seek to create compelling fictional situations that engross the audience. They fashion visually shareable, but otherworldly alternative spaces. They try to achieve their goals by using similar, if not identical, codes: moving images, music, sound effects, and words, both spoken and written. Cinema and video games are synesthetic forms of expression, i.e., they engage various senses, both sight and hearing, of the spectator. Unlike the novel, they are also synthetic, meaning they present the uncommon capability of combining different arts and discourses. As Skirrow (1986) noted, “Although video games and pay videos construct their respective worlds in very different ways, both attempt some kind of totalizing experience which demands our undivided attention, temporarily eclipsing all other worlds” (p. 121). Her comment is echoed by Stallabras (1993), who added: “Most of all, in trying to provide a palpable and unified reality in which the player operates, by linking response, vision and sound, the computer game aspires to a phantasmagoric experience of total immersion” (p. 60).

This teleology precedes chronologically the invention of both media. Some argue that its roots can be traced to modern theater arts. In his seminal essay on *The Artwork of*

*the Future* (1849), the German composer Richard Wagner illustrated his concept of opera as *Gesamtkunstwerk*, i.e., total artwork. He proposed a synthesis of all the arts into a single medium of artistic expression and designed a new kind of theater that could maximize spectators' involvement. As Parker and Jordan (2001) argued, "this approach to opera foreshadowed the experience of virtual reality, immersing the audience in the imaginary world of the stage." Wagner's vision has not disappeared in the Information Age. On the contrary, it has resurrected into a new, digital form. Brenda Laurel (1991) suggested that the computer represent a virtual theatre, which can satisfy "the age old desires to make our fantasies palpable and it provides an experience where I can play make-believe, and where the world auto-magically pushes back" (pp. 262-263).

Others, however, regarded cinema, and not theatre, as the ultimate art form. The Italian Futurists, for instance, proclaimed in 1916 that traditional arts had been superseded by the emergence of moving pictures. In the "Manifesto del Cinema Futurista" (1916), Filippo Tommaso Marinetti (2001) argued that film is the most dynamic human expression, the only one that truly reflects the frantic speed and energy of the Modern Age.

The Futurist cinema, which we are preparing, a joyful deformation of the universe, an alogical, fleeting synthesis of life in the world, will become the best school for boys: a school of joy, of speed, of force, of courage, and heroism". (Parker & Jordan, 2001, p. 77)

Like Wagner's *Gesamtkunstwerk*, the Futurist Cinema aspired at synthesizing all of the traditional arts, unleashing a new form of expression capable of breaking out of "the limits of the frame." Cinema's ambition of transcending "the limits of the frame" resurfaced with the video game, a medium that, by its own nature, transforms the

spectator into an actor and engages a constant interaction with him. To illustrate the characteristics of this continuity—which applies to the phenomenology of consumption of the mediated content as well as to the mediated content itself—it would be useful to briefly review some aspects pertaining the emergence of primitive cinema.

*The mutoscope as the video game predecessor.* At the end of the 19<sup>th</sup> century, various inventors designed a series of peepshow devices that reproduced both realistic and fictional situations with the aid of moving photographs. Among those was the mutoscope, an improved version of Edison's kinetoscope. The machine, patented in 1894 by Henry Norton Marvin and Herman Casler, did not rely on any special illumination or an electric motor. It contained a sequence of photographs, each image being slightly different from the preceding one, which were arranged around the perimeter of a drum. A simple turn of a handle flipped the cards rapidly, giving the impression of movement. The mutoscope included a viewing aperture, which customers peered into to watch the action unfold.

This new device gave viewers much greater *control* over the images as compared with previous technologies. For instance, it allowed them to modify the speed at which the action took place. Turning the handle in the reverse direction produced backward motion. The mutoscope was a device that not only created a photographic reality, but it also empowered the audience by extending and projecting their agency, giving them the ability to act upon that fantasmatic world. The spectator could change the direction or pace of the content, subverting the linear model of fruition that eventually became the paradigmatic form of film narrative.

In other words, the mutoscope added an innovative degree of interaction to the viewing experience. Its visual display was not really a screen, a term that suggests something to look through to a world beyond (such as in cinema), but rather a monitor, suggesting a glimpse into a close by yet distant world that is at least partially under the viewer's control (such as in video games).

The analogy between the two forms of entertainment has not gone unnoticed among film and video game critics. Herz (1997), for instance, wrote that the mutoscope:

Featured a mechanical crank allowing the customer to speed up, slow down, reverse, or stop the action. Much was made of this feature, curiously foreshadowing the tone of CD-ROM box labels a hundred years later ('You're in control. *You* turn the crank!'). Back then, coin-op film machines were touted as emblems of the machine age, just as coin-op video games would represent the bleeding edge of the digital era. (p. 47)

The crucial difference between the mutoscope and video games is that the former allows the user to exercise his control only over the axis of *time*, while the electronic game, by its very nature, is a primarily *space* that can be explored. Consequently, the mutoscope did not allow viewers to modify the spatial positions of the characters and objects depicted. Wolf (1997) argued, "unlike the film viewer who is led (visually) through the film's diegetic world by the film's characters, the video game player has a stage in the navigation of space" (p. 12). A space that potentially adapts, reacts, and changes to the user's actions. Video games give the user the ability to act upon, *within* and *through* a fictional world. Although Sobchack (2000) did not mention the mutoscope, her comments are absolutely crucial to understanding the logic of controlling the text:



Up until recently in what has now become a dominant electronic culture, the spectator could not control or contain its autonomous and ephemeral flow and rhythm, or materially possess its animated experience. Now, of course, with the advent of videotape and VCRs, the spectator can alter the film's temporality and easily possess, at least, its inanimate 'body.' However, the ability to control the autonomy and flow of the cinematic experience through 'fast forwarding,' 'replaying,' and 'freezing' and the ability to possess the film's body and animate it at will at home are functions of the materiality and technological ontology of the electronic, a materiality that increasingly dominates, appropriates, and transforms the cinematic. (p. 146)

Wolf (2000) also noted the historical and cultural importance of cinema's precursors like the mutoscope, the kinoscope, and the kaleidoscope, arguing that:

[They] were ahead of their time in terms of their close physical proximity to the viewer, since they came right up to the viewer's eyes and demanded full field of vision. But their flipping cards and extremely shorts programs could not provide the same sensory richness as projected films, which could also run for a longer time. Thus the projected form of cinema won out, and the displays brought to the eyes had to wait for the Viewmaster and especially virtual reality to once again take hold of an audience. (p. 218n)

Like video games, cinema is a form of intangible entertainment: It is sold on the spectator's expectation of pleasure or diversion. In this sense, the exchange object of cinema is really pleasure, which is achieved through voyeuristic fantasies.

Psychoanalytic theory defines this process as scopophilia, that is, the pleasure of looking at something that cannot return the look. Video games, on the other hand, *do* return the look. In other words, they involve the user in some sort of a dialogue (Crawford, 2001). Thus, the player is hardly a voyeur.

As for the content, arcade operators found that gently naughty or mildly exciting erotic displays were more popular than others. Despite the basic innocence of the contents, mutoscope operators often came into conflict with the authorities.

Similarly, soon after their introduction, public and private associations harshly criticized the violence and themes depicted in video games. The first recorded incident of controversy and censoring of a video game occurred in 1976 with *Deathrace 2000*, produced by Exidy. Based on a science-fiction film of the same name (incidentally, the first movie-to-game adaptation), *Deathrace 2000*'s concept revolved around players running over stylized figures with their virtual cars ("It's not killing. It's just scoring," as a character in the movie described it). Unsurprisingly, American audiences were outraged by the game and had it banned from the arcades. This did not end the controversy, however, and it lent support to the idea that video games represented a menace to children and teens. Another form of public condemnation of electronic material responded to the game *Custer's Revenge*, an Atari 2600 game that which revolved around the title character attempting to rape a Native-American woman (Herz, 1997; Poole, 1999, Kent, 2000, Herman, 2001).

Additionally, like most video games, the mutoscope was intended for individual use as opposed to the cinematograph, which could be experienced simultaneously by a large number of spectators. Mutoscope machines, like arcade video games in the 1970s, made their first appearances in parlors and fairgrounds (Nassaw, 1993), along with others coin-operated devices. As Gunning suggested, "the relation between films and the emergence of the great amusements parks, such as Coney Island, at the turn of the century, provides rich ground for rethinking the roots of early cinema" (1990, p. 60). His comment is echoed by Elsaesser (1990):

The cinema in America fed on and was implicated in the history of above all vaudeville, but also other popular entertainments, such as penny arcades,

medicine tent shows, and Hale's tours: a history that runs counter to traditional 'theoretical' speculations about the cinema's relation to the novel and the theatre. (p. 3)

Turner (1998) added that: "the beginning of motion picture exhibition can be found in vaudeville, music-hall, amusement arcades, fairgrounds, and traveling shows" (p. 24). Therefore, the roots of cinema and mechanical entertainment tend to coincide.

The analogies between proto-cinema and video game relate to the demographics of the audience as well. As Herz (1997) argued:

Ultimately, as with early video arcades, the proprietors of coin-op phonograph and kinoscope parlors realized that their core customers were young males eager to play with the latest cutting edge toys for five or ten minutes en route to work. After all, technological marvels like the phonographs and the kinoscope were far too expensive for home use. And even when the phonograph became an affordable piece of consumer gear, the audio arcades always had the flashiest and most advanced equipment, plus all the latest cylinders before they hit the stores, plus a meeting ground where guys could discuss the nuances of different phonograph models and compare the size and variety of their home cylinder collections. (p. 46)

Rather unsurprisingly, highbrow spectators and commentators regarded these proto-films as a form of lowbrow entertainment, a simple curiosity. Moreover, the first film production companies, such as Vitagraph or Biograph, would not allow identification of their screen performers nor directors, a habit that Edison kept when founding the infamous Motion Picture Patents Company in 1908. This reinforced the perception of the film medium as a disposable commodity rather than as a form of art. In 1919, some of the major figures of the silent film era—actor Charlie Chaplin, director D. W. Griffith, actress Mary Pickford, and actor Douglas Fairbanks—left their established studios for more independent ground to create a successful studio of their own, United Artists Corporation.

The development of the game industry is surprisingly similar to the development of cinema. As Kent (2001) noted, initially the game creators were nameless stars: “Despite the popularity of their games, Atari’s designers were forbidden to take credit for their work” (p. 123). This situation eventually led a number of programmers to leave Atari and create the first independent company, Activision. History repeated itself.

Although cultural critics addressed pre-cinematic devices such as the kinetoscope and the mutoscope as toys, early journalistic critiques were concerned more with the technical, realistic aspects of the images than with their narratives. After labeling Edison’s Vitascope as “the inventor’s latest toy,” a proto-film critic described the animated scenes in these terms:

An unusually bright light fell upon the screen, then came into view two precocious blonde young persons of the variety stage, in pink and blue dresses, doing the umbrella dance with commendable celerity. Their motions were clearly defined. When they vanished, a view of an angry surf breaking on a sandy beach near a stone pier amazed the spectators. The waves tumbled in furiously and the foam of the breakers flew high in the air. A burlesque boxing match between a tall, thin comedian and a short, fat one are a comic allegory called *The Monroe Doctrine*, an instant of motion in Hoyt’s farce, *A Milk White Flag*, repeated over and over again, and a skirt dance by a tall blonde completed the views. Which were all *wonderfully real* [italics added] and singularly exhilarating. (Kaufmann & Menstell, 1972, p. 5)

As this film review—which could easily pass for a description of a video game scene—illustrates, the first movies tended to display *situations* rather than tell *stories*. Thus, the crucial criterion to judge them was *technical realism* as opposed to *narrative coherence*.

The aesthetics of the so-called primitive or early cinema, that is, the “period beginning with the first commercial use of moving picture technologies in 1894 and

lasting until around 1906” (Landon, 1992, xiii), have been extensively discussed by film historians such as Thomas Elsaesser, Noel Burch, Tom Gunning, and André Gaudreault. According to Gunning (1990), “cinema before 1906” was “highly exhibitionistic,” and it emphasized pure *spectacle*: “Early cinema was not dominated by the narrative impulse that later asserted its sway over the medium” (1990, p. 58). As a consequence, cinema was considered “less a way of telling stories than a way of presenting a series of views to an audience, fascinating because of their illusory power . . . and exoticism” (1990, p. 59). Gunning calls this period in film history “cinema of attractions,” whose essence resided in “its ability to show something” (Gunning, 1990, p. 59). As Sandin (1998) noted:

The earliest publicly released silent films were often short, sensationalistic “special effects,” such as a train driving straight toward the audience. That startling effect was produced by introducing a perceptual modality that had not been experienced before in the theatrical context. The experience of the audience depended more on engaging the motion detection apparatus of our perceptual system than on their intellectual understanding of the scene. (p. 3)

Many of the first movies revolved around *action*, e.g., car chases, pratfalls, and shooting scenes. According to Gunning (1989):

Rather than narrative development based on active characters within detailed fictional environments, the cinema of attractions presented a series of curious or novel views to a spectator. These views could be non-fictional actualities (current events, human oddities, natural wonders), vaudeville acts (dances, acrobatics, gags), famous fragments (peak moments from famous plays, realizations of well-known paintings), or trick films (magical transformations and illusions). (p. 258)

Gunning suggested that the pyrotechnic, hysterical nature of the early cinema, whose “energy moves outward towards an acknowledged spectator rather than inward towards the character-based situations essential to classical narrative” (1990, p. 61), did not disappear after a proper narrative code was established. On the contrary, it went

underground only to resurface in the late 1970s as the “Spielberg-Lucas-Coppola cinema of effects” (1990, p. 62).

Interestingly, this new cinema, which “reaffirmed its roots in stimulus and carnival rides” (Gunning, 1990, p. 63), came into view when video games’ popularity reached its peak. “Early film’s ambiguous heritage” (Gunning, 1990, p. 63) migrated from cinema to video games. Like primitive cinema, the latter emphasizes interaction over traditional storytelling, actions (and reactions) over personae.

Gunning drew on Burch’s (1990) discussion of the “primitive mode of presentation” of early cinema, a mode that relied on trademarks like “the autarky of the tableau,” “horizontal and frontal camera placement,” “maintenance of a long shot,” “centrifugality,” and, above all, a refusal to “closure” (pp. 89-90). These characteristics apply to video games as well. According to Burch, the primitive cinema imposed a different logic between film and viewer, introduced a different conception of space and narrative when compared to the “institutional model of presentation,” a model that became pervasive around 1920.

Furthermore, Gunning (1989, 1990, 1998) argued that early films constructed a radically different positioning of the spectator to film. They engulfed the viewer into the action depicted on the screen by using peculiar diegetic styles. Often, the characters featured in early films directly acknowledged and even addressed their audiences (breaking the limits of the frame), by bowing toward the camera at the end of a film or frequently looking into the camera: “This action, which is later perceived as spoiling the realistic illusion of the cinema, is here undertaken with brio” (Gunning, 1990, p. 59).

Although still present, this diegetic artifice has become an exception rather than the norm in mainstream cinema. In fact, contemporary filmmakers try to create the illusion that the world of the film exists in some alternate universe that is entirely separated from the world of the viewer. Video games, however, took the stratagem of directly addressing the viewer to the extremes and deliberately smashed the already unstable frame. They acknowledge the viewer as a user, a participant in the fictional world rather than as a mere observer. They inherited and emphasized the premises and promises of early cinema—“a cinema that displays its visibility, willing to rupture a self-enclosed fictional world for a chance to solicit the attention of the spectator” (Gunning, 1990, p. 59)—while digitally re-defining and reinventing it. Just like early cinema, video games accept their constructedness rather than hiding it beyond the illusion of a self-sufficient narrative.

Landon (1992) magisterially linked Gunning’s theories on early cinema to the science fiction film. While discussing the essential differences between science fiction as film and literature, Landon suggested that the roots of the former can be found in spectacle rather than in narrative. As a consequence:

It might be argued that since primitive cinema used the spectacle of its production technology to elicit the same sense of wonder and discovery elicited by SF writing, *all cinema of attraction films can be thought of as SF*. [italics added] (1992, p. xiv)

If Landon’s argument—which was reformulated in Kuhn’s *Alien Zone II* (1990)—is correct, it would be reasonable to expect a) a significant portion of early video games to be science-fiction texts, as they too emphasize spectacle over narrative; and b) films incorporating video games as belonging to the science fiction genre, because.

according to Landon, the latter represents the quintessential example of the cinema of attractions.

Interestingly, both arguments are supported. The very first computer game (*Spacewar!*, 1961) and the very first arcade game (*Computer Space*, 1971) are, in fact, science-fiction texts. Additionally, the earliest filmic incorporations of video games can be found in the science-fiction genre (*Solyent Green*, 1973). Moreover, the first game adaptation of a movie was also based on a science fiction film, *Deathrace 2000* (1975).

Manovich (1999, 2001) posited a parallelism between digital technologies and the pre-cinematic methods of manufacturing images. Manovich explained how both are constructed and touched upon *manually*, instead of capturing series of images to film by the means of cinematography. In Manovich's discussion of the cultural history of the moving image, pre-cinematic techniques, the photographic and the graphic, animation and loops all seem to merge into the hybrid language of digital multimedia and video games. He suggested that the key to understand cinema is *motion*, not narration:

As testified by its original names (kinetoscope, cinematograph, moving pictures), cinema was understood, from its birth, as the art of motion, the art which finally succeeded in creating a convincing illusion of dynamic reality. (1999, p. 175)

Analogously, early video games emphasized action, effects (attractions), spatiality and spectacle over narration. *Space War!* made no attempt to present a story or characters. It was a space combat simulation created by Steve Russell and other MIT students (Graetz, 1981; Levy, 1993), who did not patent their invention (in another striking coincidence, Edison did not patent his pre-cinematic device, the kinetoscope, outside the United States). The birth of the two media presents other interesting parallels.



For instance, as the Lumières' brothers early film. *L'Arrivée d'un Train en Gare de la Ciotat* (*The Arrival of the Train at the Ciotat Station*, 1895), displayed a train—the symbol of the Modern Age—Steve Russell's *Spacewar!* (1961) featured a spaceship—the emblem of the Space Age. In both cases, new visual techniques were used as a display window, a spectacle device for other technologies.

Another early video game, *Pong* (1972), based on a 1958's project by William Higinbotham, also lacked a narrative structure. It was a simple tennis simulation, which created a virtual space that allowed head-to-head contests between two human players or against the machine.

One might be tempted to suggest that video games replicated the dichotomy that film historians saw in early cinema, that is, the opposition between Lumière and Melies, documentary realism vs. fantasy, reproduction vs. invention. After all, *Pong* is an electronic representation of an existing game, while *Spacewar!* is a science-fiction fantasy inspired by E. E. Doc Smith's space sagas. As Pearce (1998) recalled, *Spacewar!* was created in 1961 by "a group calling themselves the Hingham Institute Study Group on Space Warfare"—actually a bunch of MIT hackers obsessed with cheesy sci-fi movies who lived in a tenement on Hingham Street. Over a period of several months in 1961, they devised a wild scenario for a sci-fi game" (p. 221). As Graetz added (1981, ¶ 8), the MIT students wished to make a movie based on the Skylark series, but since they were hackers, not film-makers, they used computers to visualize their dreams. This passage is absolutely crucial:

At the time, we were crashing and banging our way through the 'Skylark' and 'Lensman' novels of Edward E. Smith. . . . These stories are pretty much all of a

piece: after some preliminary foofaraw (*sic*) to get everyone's name right, a bunch of overdeveloped Hardy Boys go trekking off through the universe to punch out the latest gang of galactic goons, blow up a few planets, kill all sorts of nasty life forms, and just have a heck of a good time. . . . If that's the case, we asked ourselves, why doesn't anyone make 'Skylark' movies? Hearing no reply (our innocence of current film technology, economics, and copyright laws was enormous), we often passed the time in the Hingham Street common room in deep wishful thought, inventing special effects and sequences for a grand series of space epics that would never see a sound stage. Nonetheless, these books, movies, and bull-sessions established the mind-set that eventually led to *Spacewar!*

Yet, equating *Pong* to Lumière (realism) and *Spacewar!* to Melies (fantasy) would be misleading for at least two reasons. The first is that, as a newer generation of film historians have demonstrated, the dichotomy between Lumière vs. Melies is purely "Manichean" (Gunning, 1989, p. 67), a myth. Similarly, the dichotomy between *Pong!* and *Spacewar!* is not critically grounded. In fact, both texts are simulations, thus the issue of realism is not really pertinent. A simulation is simply the imitative representation of the functioning of one system or process by means of the functioning of another. In video games, ontological implications are not as relevant as they could be in cinema.

Game historians and theorists (Herz, 1997; Kent, 2001) conventionally regard *Space Invaders* (Taito, 1978), a science fiction game in which a human had to fight an evil alien invasion, as the first game to introduce narrative into the electronic medium. Another game that is considered more narrative-driven than its predecessor is *Pac Man* (Namco, 1980), whose title character is deemed as the first video game celebrity: "Pac Man gave video games a face. And a face, however featureless and crudely rendered, gave video games entree into the celebrity-obsessed mass media" (Herz, 1997, p. 132).

Although *Pac Man* did not tell a story during game play (players simply wander through maze after maze, collecting dots and dodging ghosts), the game's instruction screens did offer an elementary background story, as well as names for all the characters.

However, although classic video games did position players within a story, they simply allowed the players to perform an activity. e.g., navigating a maze or destroying the aliens, rather than watch a story unfold. Again, *action* rather than narration. It would take several years before video games started to develop more engrossing and complex background stories and would begin to entwine rudimentary narratives out of the action required of players. As the performers completed various tasks, for instance, they might move closer to rescuing a princess or saving the universe from the alien menace. Often, the stories remained linear (rather than non-linear) in nature, but a player could only advance the plot when he or she completed required acts of manual dexterity.

Another interesting parallel between early film and early video games can be found in Wolf (1997):

Many early video games were designed so that the entire game was contained on a single screen of graphics; the player did not leave the screen to reveal off-screen space. *Space Invaders*, *Pong*, *Breakout*, and other games had all their action contained on one screen and there were no other levels. . . . Cinematically, these games resembled the early films of Lumière and Melies, in which the camera was pointed at the action and remained static for the duration of the action, without any editing to link it to other locations. Even the instantaneous disappearance of game objects (like the destroyed space invaders) is similar to Melies' stop-action effects in films like *A Trip To The Moon* (1902), and *The Black Imp* (1907), in which objects or people suddenly vanish. (p. 17)

Although undoubtedly poignant, Wolf's examples are not entirely appropriate. *A Trip To The Moon* presents a diegesis that clearly contrasts with the single screen

structure of such games as *Space Invaders*, *Pong*, *Breakout*. As Gunning (1990) observed, Melies' film is based on a multi-shot narrative of continuity in which:

The disruption of the cut is naturalized by continuity within the story. Specifically, this continuity is the actual movement of a character(s) that bridges the cut. The end of one shot is signalled by characters leaving the frame, while the next shot is inaugurated by their reappearance. (p. 45)

A game that better fits the analogy would be, for instance, David Crane's *Pitfall* (Activision, 1982), in which the hero, Harry, exits the screen from the right corner only to reappear in a new location from the left corner. This strategy, just like in *A Trip To The Moon*, minimizes rather than disrupts the cut between the shots or screens.

In early games like *Pong* or *Space Invaders*, the action takes place in a single screen, where a few variable elements move against a fixed background. Again, the similarities with primitive cinema are relevant. Consider this description of Raynaud's Praxinoscope Theater by Manovich (2001):

The movement itself was limited in range and affected only a clearly defined figure rather than the whole image. Thus, typical actions would include a bouncing ball, a raised hand or raised eyes, a butterfly moving back and forth over the heads of fascinated children, simple vectors charted across still fields. (p. 297)

Fascinated children and bouncing balls also appear in a passage from *Extra Life* (1998), where Bennhaum describes his first encounter with a *Pong* machine, circa 1973:

Outside the dining room was a bar decorated in the sparkling, smoky-mirrored chrome that presaged the coming disco era. One afternoon I wandered in. I made my way past the bartender, drawn toward a machine at the far end against the wall. It looked like a television set running a cartoon. I wondered which show was on. As I got closer, something seemed strange; I'd never seen a cartoon like this one before. I'd never seen a TV like this before. . . . Where was the channel dial? I stood watching the "show"—two rectangles batting a square between them—*bonk. Bonk. Bonk.* went the machine. And then it all became clear. This wasn't a television show; this wasn't a television. It was a machine playing some sort of game with itself! It was showing off, to me. It wanted me to play with it.

I grabbed the knobs and spun them around, noticing the coin slot. Back and forth went the ball, jumping across the screen in rapid, barely visible increments, eminently familiar yet totally strange. (p. 26)

Although a piece of fiction, this account of the reception of the video game contains rich material for understanding the horizons of expectations in which the new medium originally appeared. In this case, the game is initially assimilated both to a cartoon and television. In a sense, video game synthesized and, as Bolter and Grusin would argue, remediated the two languages.

Interestingly enough, early video games that did emphasize storytelling over action have been less commercially successful than those that relied on a more sophisticated gameplay. For example, a game like *Dragon's Lair* (1983), which presented high-quality video in a choose-your-own adventure format, did not survive its own hype. Players watched a series of animated scenes until they heard a “beep” sound, which was the cue to move the controller device in the required direction. Although *Dragon's Lair* displayed some of the most advanced graphics ever seen in a video game, it quickly lost popularity because of its limited interface, which minimized the players' participation. In fact, the vast majority of the interactions in the game amounted to only two choices (moving left or right down a path, for instance), while most games allow players more freedom to move around the fictional world.

As video games were trying to combine cinematic visuals with non-linear narrative, avant-garde cinema was incorporating video games' and hypertexts' interactivity into its diegetic modes of address. In 1982, media artist Lynn Hershman created *Lorna*, “a seminal art video disc” (Parker & Jordan, 2001, p. 300), which let the

viewer navigate through the branching structure of the narrative. *Lorna*, described as “a labyrinthine journey through the mental landscape of an agoraphobic middle-aged woman” (p. 300), presented a form of interactivity that Hershman (2001) defined as “a transgression of the screen,” which teleported the audience into a virtual reality and enhanced the identification mechanism:

Because the viewer uses a nearly identical unit to direct the disc action, a metaphoric link or point of identification is established between the viewer and Lorna. The viewer activates the live action and makes surrogate decisions for Lorna. Decisions are designed into a branching path. Although there are only 17 minutes of moving image on the disc, the 36 chapters can be sequenced differently and played over a period of time lasting several days. (p. 302)

In the 1980s, the notion of “interactive movie” gained popularity. This idea, which “has its roots in both cinema and computer games.” (Laurel, 1991, p. 53) did not turn out successful as a domestic form of entertainment, but it became popular in theme parks and eventually merged with the ‘movie-ride’ attractions, another form of leisure that offered both the sheer excitement of video games and the illusion of reality created by moving pictures. According to Murray (1997), “the concept of ‘riding’ a movie fits the general strategy of entertainment industry conglomerates to create multiple ‘marketing windows’ for the same imaginative products. . . . The ‘movie ride’ is engineered for strong visceral effects. It combines the surprises of the funhouse with the terrors of the roller coaster” (p. 49). These attractions were produced by “two masters of cross-merchandising, Walt Disney Company and Lucasfilm” (p. 49). For a cultural analysis of the implications associated with the cross-pollination between films, video games, and theme park attractions see Strehovec (1997).

*Video games, virtual reality, and the cinema of the future.* Notions of convergence between film and electronic simulations have appeared in literature for quite some time. Two examples: “The Machine Stops” (1909) by E. M. Forster and *Brave New World* (1932) by Aldous Huxley.

In Forster’s short story, the Earth’s inhabitants have moved underground, where their needs and desires are met and their every act controlled by an omnipotent machine. As a result, human beings spend most of their lives in their individual cells, communicating through video screens. The machine is described as providing its inhabitants with infinite simulations. In place of authentic objects, it provides artificial fruit and fake marble bathtubs, for people who have grown content both with imperfect substitutes and with a pale copy of normal life.

A young rebel protesting against the loss of authenticity and the reverence for abstraction seeks to communicate with his mother about his need to go above terra firma. This act of direct experience terrifies the woman, who fears her son will be sentenced to homelessness. The son does experience the beauty of the earth and returns to prophesize the end of the machine and the civilization it created. In this pessimistic vision of a futuristic society, Forster introduced the notion of the *cinemataphoes*, i.e., machines that project visual images. “The Machine Stops” is a cautionary tale about society’s increasing dependence on technology and the fascination for simulations.

Even more unsettling than the *cinemataphoes* is the *feelies*, a special moving picture described by Huxley (1953) in *Brave New World*.

In this dystopic classic, set in year 632 after Ford, society is designed by genetic engineering, and controlled by neural conditioning with mind-altering drugs and manipulative media. Consider this passage: “Seven and a half hours of mild, unexhausting labour, and then the *soma* ration and games and unrestricted copulation and the *feelies*. What more can they ask for?” (Huxley, 1953, p. 66). People’s leisure activities include the enjoyment of the *feelies*, special movies that offer a high degree of involvement through the aid of technology. The *feelies* provide the audience with physical, visual, and aural delight. Spectators in the Alhambra Theater, a mix between the movie palace and the modern arcade, are physically aroused and emotionally stimulated by realistic, compelling images:

“Going to the Feelies this evening, Henry?” enquired the Assistant Predestinator. “I hear the new one at the Alhambra is first-rate. There’s a love scene on a bearskin rug; they say it’s marvellous. Every hair of the bear reproduced. The most amazing tactual effects.” (Huxley, 1953, p. 112)

The *feelies*’ creators are special technicians called the *emotion engineers*.

Interestingly, the 128-bit processor of the Sony PlayStation2 video game console is called “Emotion Engine.” Moreover, the press release issued by Sony (1999), which promised the advent of a new era of cinematic games, recalls the messianic rhetoric of Huxley’s novel:

Imagine walking into the screen and experiencing a movie in real-time... this is the world we are about to enter. . . . The quality of the resulting screen image is comparable to movie-quality 3D graphics in real-time. . . . This will help accelerate the convergence of movies, music, and computer technology into a new form of digital entertainment.

The PlayStation2 was presented to the public as a machine capable of delivering images even more realistic than those created with the Nintendo’s 64 “*reality engine*,” a



term coined by Howard Rheingold (1991) to describe a technology that in a “few years promises (and threatens) to change what it means to be human” (p. 32). Just like the synthetic characters of contemporary video games, the heroes of Huxley’s *feelies* look “drawling and incomparably more solid-looking than they would have seemed in actual flesh and blood, far more than reality” (p. 134). In his nightmarish vision, the *feelies* provided a mindless, inauthentic “imbecile happiness,” a vacuous escapism that makes people comfortable with their lack of freedom. Thanks to the *feelies*, the spectators could feel every hair of the rug on which the protagonist was making love, every jolt in the crash of a helicopter, and they were so fully absorbed in the sensation that they paid no attention to the silliness of the plot.

Since the beginning, video games have been striving to achieve the ultimate level of realism to simulate the world as it is perceived. Cinema shares a similar desire. In his influential essay, “The Myth of Total Cinema,” Bazin (1967) argued that the film pioneers sought to achieve “a total and complete representation of reality; they saw in a trice the reconstruction of a perfect illusion of the outside world in sound, color, and relief” (p. 63). According to Bazin (1967):

The guiding myth, then, inspiring the invention of cinema, is the accomplishment of that which dominated in a more or less vague fashion all the techniques of the mechanical reproduction of reality in the nineteenth century, from photography to the phonograph, namely an integral realism, a recreation of the world in its own image, an image unburdened by the freedom of interpretation of the artist or the irreversibility of time. (p. 64)

Wolf (2000) interpreted Bazin’s metaphor in these terms:

The “Myth of Total Cinema” applies more to form, perceptual realism, and experience than it does to content. Although Bazin uses the phrases “reproduction of reality,” the term representation comes closer to the truth. . . . It

would seem that cinema's teleological goal (or rather, the goal of its inventors) is the replacement of consciousness, or at least control of all of a viewer's sensory input. Nor need this goal be limited to cinema alone, as it applies to media in general, which replace direct experience with mediated experience. (p. 205)

And Telotte (1990) added that Bazin's myth is actually "a subtle desire" that "offers more than simply an aesthetic of reality; it testifies as well to the medium's potential for fantasy or "illusion" (pp. 152-153) and goes as far as a remodeling of the world by projecting into it, cinematically, the double of man's imagination.

Well before the introduction of the Sony PlayStation2, cinematographer Morton Heilig started working on the idea of the so-called reality machines, cinematic devices that, like Huxley's *feelies*, could reproduce and simulate the sensory brilliance of real life and extend the myth of total cinema. As Parker and Jordan (2001) suggested:

[Heilig] proposed that an artist's expressive powers would be enhanced by a scientific understanding of the senses and perception. His premise was simple but striking for its time: If an artist controlled the multi-sensory stimulation of the audience, he could provide them with the illusion and sensation of first-person experience, of actually being there. (p. 123)

Inspired by short-lived curiosities such as Cinerama and three-dimensional movies, Heilig concluded that the logical extension of cinema would redefine the audience's involvement not only with the visuals, but with all five senses.

While it still must learn to faithfully reproduce man's outer world as perceived in his consciousness, it will eventually learn to create totally new sense materials for each of the senses—shapes, movements, colors, sounds, smell, and tastes—they have never known before, and to arrange them into forms of consciousness never before experienced by man in his contact with the outer world. (Heilig, 2001, p. 231)

Heilig's sensory revolution aimed at smashing the traditional fourth wall of film and theater, transporting the spectators into realistic, convincing, yet virtual worlds.

After graduating at the Centro di Cinematografia in Rome under Vittorio De Sica, Heilig produced the Sensorama (1962), a nickelodeon-style arcade machine that catapulted viewers into multi-sensory expeditions and adventures in surrogate travel. This proto-virtual reality arcade attraction simulated all the sensory experiences of a motorcycle ride by combining three-dimensional movies, stereo sound, wind, and scents. The person receiving the recorded experience sat in a special booth to see the wide-angle stereoscopic visuals, hear the binaural sounds, feel the wind and vibrations, and smell the aromas. By gripping the handlebars on a specially equipped motorcycle seat and wearing a binocular-like viewer, the passenger could travel through scenes including California sand dunes and Brooklyn streets. Small grills near the viewer's nose and ears emitted breezes and authentic aromas. The Sensorama was extremely complex for the arcade environment, and funding never materialized for the simplified version Heilig later developed. Although he built and patented it, his invention never became widely available (Robinett, 1998, p. 340).

As Laurel (1991) observed, Sensorama failed not because of technical flaws. Its only fault is that it happened “at a time when the business community couldn’t figure out what to do with it—pinball parlors were monolithic and it would be several years before *Pong* kicked off the arcade game industry” (p. 52). Heilig’s invention foreshadowed the invention of video games. While his idea was a commercial fiasco, his vision survived:

[The Sensorama] could present exciting experiences to one person at thousands of locations where a theater wouldn’t fit: hotel lobbies, airports, arcades, ballparks, and restaurants. I charged 25 cents for a two-minute “ride,” and the machine played one of four rides in rotation. (Heilig, 2001, p. 345)

A few years later, video games materialized in motel lobbies, airports, arcades, ballparks, arcades, and restaurants.

In addition to the Sensorama, Heilig (2001) envisioned the Telesphere Mask, a proto-virtual reality system that provided cinematic simulations:

I determined that a small stereographic video mask placed on the head could provide you with color 3D peripheral imagery, binaural sound, and aromas, with about an 80 percent illusion of reality. I presented my "Telesphere Mask" patent design to the directors of RCA's David Sarnoff Research Center in 1960, but they couldn't see any future in it. (p. 345)

Finally, Heilig updated Wagner's ideas by suggesting a new theatrical cinema that would completely catapult the spectators in the visual world depicted onscreen. In his essay, "The Cinema of The Future", Heilig (1955) described a new theater that would simulate reality by providing a broad palette of sensory stimulation that consisted of three-dimensional color images, vibrations, and feed-back technology, simulated wind, aromas, multi-directional sound, and temperature variations. As Heilig (2001) wrote: "I could no longer consider a theater to be a piece of architecture; it was a part of a large machine designed to psychologically transport people as effectively as a jet transports them physically" (p. 345). While fascinating, these inventions were not commercially implemented.

***The DVD film-game connection.*** In the early 1990s, video games stored on CD-ROM created "a new visual language unintentionally, while attempting to emulate traditional cinema" (Manovich, 1999, p. 184). CD-ROM was penalized by several technical restrictions that jeopardized electronic imitation of film. As Manovich (1999) argued,

The designers of CD-ROMs had to invent a different kind of cinematic language in which a range of strategies, such as discrete motion, loops, and superimposition, previously used in nineteenth century moving image presentations, in twentieth century animation, and in the avant-garde tradition of graphic cinema, were applied to photographic or synthetic images. This language synthesized cinematic illusionism and the aesthetics of graphic collage, with its characteristic heterogeneity and discontinuity. The photographic and the graphic, divorced when cinema and animation went their separate ways, met again on a computer screen. (p. 185)

Many, if not all, the limitations of CD-ROM have been superseded by its successor, the DVD (acronym of *Digital Video Disk* or *Digital Versatile Disk*). In the following pages it will be argued that the advent of this new format has drastically accelerated the convergence between films and movies.

Created to overcome the limits of previous recording supports such as the Video CD, Laserdisc, and, above all, VHS models, DVD was commercially launched in late 1996 by some of the biggest companies in the field of digital video, such as Sony, Philips, Toshiba, and Matsushita. Available in three different incarnations—DVD-video (for full-length movies with high quality video on one disc), DVD-audio (for higher quality music and surround sound), and DVD-ROM (for enhanced multimedia and games applications)—the format has enjoyed a great commercial success. According to Brown (2001), by the end of 2001, 24.8 million Americans will own a DVD player with the total amount of expenditure on discs topping \$6.2 million.

DVD has quickly become the preferred technology for consuming movies in a domestic environment and it has been called the fastest-growing, most widely accepted new technology in home video history. DVD does not simply offer a better picture resolution as compared with a videocassette: It also allows the user to control the

presentation of audio and visual sequences. This new technology has redefined the act of viewing a movie, transforming a passive experience into an interactive one. Specifically, the large majority of DVDs offer a series of extra features as a complement to the movie.

These extras, which clearly mimic the various modes of play in video games, include interviews with actors and directors, cut-scenes, and other interesting material. DVD also offers multi-language audio, that is, the film dialogues can be registered in different languages, as the audio traces are independent from the video ones.

DVD-Video also offers instantaneous slow motion or fast-forward together with a perfect freezing of the frame. Surprisingly, the play-in-reverse option, which was first offered by the mutoscope, is currently unavailable because the MPEG-2 algorithm that lies at the heart of DVD technology is progressive. However, DVD allows the manufacturer to insert additional traces with separate, complementary video scenes. For example, a producer can choose to register a specific scene from different camera angles. Through a menu that can be directly accessed, it is possible to view those scenes and manually select the camera angle. The limits are connected to the imagination, the willingness of the author, and to the available space, although so far only pornographic films and music videos have taken advantage of this feature. DVD also allows the user to personalize and customize the cinematic experience.

The degree of interactivity offered by DVD technology ranges from simply selecting which chapter in a movie to play to using computer and video game-like menus for more complex interaction. The user interacts with the disc via a player remote control (or even a game controller) that includes some standard buttons or with on-disc controls

such as menus. The latter give the user instant access to individual scenes (chapters) in the movie, information such as biographies of the actors, and other related video or graphic material. On-screen menus normally comprise a still MPEG image with a subpicture. The menu image is divided into button (*hotspot*) areas which, when selected, will cause a new video sequence, MPEG still or another menu to be displayed. The user selects buttons not by moving a cursor but—as in a video game—by using the Up/Down/Left/Right arrow keys on the remote control.

The logic behind the visuals and the interaction is clearly video ludic. Although the interactive possibilities of DVD-video might appear rather limited if compared with those of a video game, it is clear that this technology has profoundly affected, at least on a phenomenological level, the act of watching a movie. The user navigates the movie rather than simply watching it, selecting the preferred language of dialogues and subtitles, accessing extra scenes and even camera angles, pausing it and resuming the fruition, as if he were playing a video game. There is a difference, however. In CD-ROM and DVD-ROM games, the interaction parts represent the main attraction while the cinematic sequences are seen as complementary.

In a DVD-film, the equation is reversed. Here, the main attraction is the film, but its fruition is extended, completed, or even subverted thanks to the inclusion of alternative endings, deleted scenes. All of these extras require some form of interaction to be accessed. The DVD-film is like a video game disc that includes patches, additional levels, characters and scenarios. The DVD version of *Final Fantasy: The Spirits Within* (2001), for instance, is a double-disc set that contains two commentary tracks, featuring

co-director Motonori Sakakibara, sequence supervisor Hiroyuki Hayashida, sets & props lead artist Tatsuro Maruyama, phantom supervisor Takao Noguchi, animation director Andy Jones, editor Chris S. Capp, and staging director Tani Kunitake, as well as storyboards, theatrical trailers, and production notes. The first disc also includes *The Making of Final Fantasy: The Spirits Within* documentary, a *Final Fantasy* music video (Michael Jackson *Thriller*'s video, played out by the computer-generated stars of the movie), an alternate opening sequence, the *Aki's Dream* mini-movie, trailer exploration, character files, vehicle scale comparisons, and character and environment development workshops. The second disc includes the so-called *Final Fantasy Shuffler*, where users can reedit and playback a pivotal scene from the film. Finally, the DVD-ROM features include the complete screenplay for the film, a visual tour of Square Pictures, screensavers, and Web links. This overabundance of visual material renders problematic the distinction between film and game.

The blurring of boundaries is even more clear in the case of the DVD version of *Lara Croft: Tomb Raider* (2001), which not only contains conventional features such as a director's commentary, behind-the-scenes footage, cast and crew interviews, deleted scenes alternative title sequence, and also three levels of Core Designs *Tomb Raider* video game.

Another interesting feature that DVD movies have directly inherited from video games is the Easter egg. In gaming jargon, an Easter egg is a hidden feature of a video game. Its origin can be traced to the early 1980s, when this expression was used for the first time on the pages of *Electronic Games*. The inventor of the Easter Egg is Warren



Robinett, at that time a programmer for Atari. As Kent (2001) explained, while he was working on the Atari 2600 version of the popular game *Adventure*,

Robinett decided to create a secret room. The room would have a special surprise for anyone who found it, and the keys to open the room would be readily available, but Robinett made the keys and location of the room so obscure that he doubted that anyone would discover them. (p. 151)

The artifice was eventually uncovered by a 12-year old player from Salt Lake City, who found the key to open Robinett's hidden room and reported his discovery to Atari. A subversive invention eventually became a staple of the genre. As Kent noted, "In the future, entire games would be built around hidden surprises" (p. 154).

Similarly, a DVD Easter egg is a hidden feature located in some tucked away part of a DVD menu. Some can be easily found, while others prove to be more difficult. Their activation requires the pressure of some buttons on the remote control. For instance, the movie *Mortal Kombat: Annihilation* (1997) necessitates the user to access the "Special Features" session from the *Main Menu* and then press the left arrow key. This highlights the eye of an onscreen creature. By pressing 'Enter' on the remote control, the user can play a simple puzzle game. By selecting the keys in the correct order (in this case, left/right/down/up), the user is granted the view of what one of the countless Internet websites that list the DVD Easter eggs calls a "nice bonus scene." The above description reads like the strategy tips dispensed by video game guide and help books. The point is that even minutiae such as the Easter eggs clearly illustrate how video game conventions have been incorporated into film.

An interesting amalgamation of game and film that uses the versatility of the format to deliver a unique experience is the Interactive DVD. The relatively new genre

represents a significant improvement over the first similar experiments with laserdisc technology in the 1980s such as *Lorna*. Currently, there are two types of interactive DVDs: cartoon-like games and film. The former category comprises DVD versions of classic titles such as *Dragon's Lair*, *Space Ace*, and their respective sequels. The second, and perhaps more interesting, group includes interactive film such as Bob Bejan's *I'm Your Man* (1992/1998, see Ryan, 2000, for an in-depth examination) or David Wheeler's *Tender Loving Care* (2000) and *Point of View* (2000). Interestingly, Wheeler, along with Rob Landeros, has previously produced cinematic video games such as *The 11<sup>th</sup> Hour*, the sequel to the popular 7<sup>th</sup> *Guest* CD-ROM game. The two founded Aftermedia Interactive and began creating Interactive DVDs. *Tender Loving Care* was originally intended as a CD-ROM game, then transferred onto the DVD-film format. The adaptation resulted in a reduced length, which was counterbalanced with visual supplements such as behind the scenes options. *Tender Loving Care* featured multiple endings and alternate scenes, but its importance lies in its innovative approach to the user's interaction with the story. Rather than directly asking the viewer, *Tender Loving Care* compiled the plot based on psychological quizzes that asked the user to interpret character motivation along with personal questions about faith and intimacy. The second interactive film from Aftermedia, *Point of View*, is a thriller with a plot that revolves around Jane, an attractive artist with a secret past who lives alone in an apartment and becomes infatuated with Frank, a young musician living across the street. Although the popularity of Interactive DVD is still extremely limited, it provides an interesting example of the confluence between video games and films.

Even more relevant to this discussion is the fact that the latest generation of gaming platforms, such as the Sony PlayStation2, Microsoft Xbox, and Matsushita/Nintendo GameCube can play DVD movies as well as video games. As Donahue (2001, ¶ 2) reported, “according to a survey conducted by Sony Computer Entertainment of America, 93% of all PS2 owners have used it to watch a DVD. The statistics show owners are willing to use their machines for activities besides gaming.” Moreover, videogames on DVD-ROM now incorporate many of the features found on DVD-film. A case in point is *Soul Reaver 2* by EIDOS, the first game to feature a variety of extra ‘cinematic’ materials. In addition to the game itself, the *Soul Reaver 2* disc includes 30 minutes of voice casting outtakes, 600 still images of concept art, promotional material, character renders, opening cinematics, soundtrack for *Legacy of Kain: Soul Reaver* and *Soul Reaver 2*, a ‘never-before-seen’ *Blood Omen 2* trailer plus other Eidos game trailers, developer credits and photos, a collection of scripts, and cinema sequences titled History of Nosgoth Dark Chronicle.

This literal incorporation of the film into the console via the disc tray has a series of implications. As the compact disc became the standard recording format for both video games and music in the 1990s, the DVD promises to become the universal support for both film and games. As if the former integration led to the increase in popularity of electronica, a music genre that is heavily influenced by video game aural conventions, this newer integration is already redefining film and games, creating a new form of entertainment. As McLuhan (1964) argued:

The hybrid or the meeting of two media is a moment of truth and revelation from which a new form is born. For the parallel between two media holds us on the

frontiers between forms that snap us out the Narcissus-Narcosis. The moment of the meeting of media is a moment of freedom and release from the ordinary trance and numbness imposed by them on our senses. (p. 55)

*Using video games to create movies: Machinima.* Along with DVD, another interesting technology that represents both an effect and a catalyst of this convergence is represented by the advent of *Machinima* (Hancock, 2000), real-time rendered digital films created with technologies first developed for computer games. By recycling 3D engines used in popular video games, digital moviemakers on a low budget can make their movies on a computer and distribute them over the Internet.

The required gears are a computer (hardware) and a copy of a game (software) such as *Quake*, *Unreal*, and *Half-Life*. The movies can be watched on the computer screen and also copied onto a regular videotape and experienced on a normal VCR. *Machinima*'s website lists dozens of movies (categorized as comedies, action, drama) realized using this simple tool. The implications of this technology should not be underestimated. In fact, *Machinima* transforms video game users into film directors and allows them to make a feature-length film at low costs. In addition, the virtual nature of *Machinima* means that filmmakers using this technology can set their films anywhere they like, featuring anything or anyone they like, without limits on their storyline.

*Machinima* differs from conventional computer graphic techniques because it allows to create films in real-time. With other popular rendering program such as Avid's *Softimage*, each frame of a film must be first "rendered" to be viewed, and this process takes about 20 minutes on a PC.

However, there are a few disadvantages. For instance, because *Machinima's* images are computer animated, the current technology does not allow a very high degree of photo-realism. As a corollary, since *Machinima* uses totally computer-generated sets and characters, the user has to create everything that he/she wants to present in the film, whether it is characters, sets, or props. Video game cinema, in a sense, gives Bazin's notion of total cinema a completely new meaning.

As Gabilondo (2000) argued:

Computer technology has pushed "total cinema" into a new order of reality—the hyperreal—in which the representation of the fantastic does not delegitimize realism but rather legitimizes it as a stronger form of realism. In short, it is important to acknowledge that, ironically enough, Bazin already foresaw the logic of hyperreality when he suggested: "Every new development added to the cinema must paradoxically, take it nearer and nearer to its origins. In short cinema has not been invented!" Through computer technology, cinema has pushed its origin back to premodernity, to medieval or older times in which the line between the fantastic and the real was not clearly drawn. (p. 186)

***Divergences on convergence.*** Although many observers believe that the vocabularies, technologies, narrative strategies, and genres of films and video games will ultimately converge, others argue that the two media might remain rigidly separated. In a recent article that appeared in *Sight & Sound* magazine, Peter Molyneux, one of the most respected game designers on the scene, was quoted as saying that if one were "to draw a parallel between the games industry and the film industry, I'd say we're still in the fairground tent" (2001, p. 4).

In a similar tone, Jenkins (2000, ¶ 5) suggested that:

In the end, games may not take the same path as cinema. Game designers will almost certainly develop their own aesthetic principles as they confront the challenge of balancing our competing desires for storytelling and interactivity. *It remains to be seen whether games can provide players the freedom they want and*

*still provide an emotionally satisfying and thematically meaningful shape to the experience* [italics added].

The dichotomy between storytelling and interactivity is seen as irreconcilable by Joner (1998), who argued that:

On a fundamental level, storytelling and interactivity are exclusive to each other. Interactivity puts the player in charge; storytelling puts the author in charge. Interactivity allows the player to go wherever and to do and see whatever he or she wants. Storytelling would dictate that the protagonist be restricted to acting in ways that make sense dramatically. (p. 153)

Herz (1999, ¶ 4), argued that “film and the game are structurally distinct”

because:

Film is a linear form (flashbacks and Tarantino-esque shuffling don't alter the narrative trajectory. They just change the order in which events are revealed). Movies are about storytelling. Video games, on the other hand, are a nonlinear medium. They have almost nothing to do with storytelling and everything to do with movement and geography. When you're playing a video game, storytelling is the farthest thing from your mind.

Even more drastic is Kroll (2000), who argued that video games, in contrast to film, cannot provide a complex palette of emotions. This is because:

Moviemakers don't have to simulate human beings; they are right there, to be recorded and orchestrated. The digitally created medieval Japanese warriors in *Kessen* (one of the first titles made for PlayStation 2) have none of the breathing presence, the epic gallantry, of the knights in Akira Kurosawa's 1985 film *Ran*. The top-heavy titillation of *Tomb Raider's* Lara Croft falls flat next to the face of Sharon Stone, smiling with challenging sensuality at some haplessly macho male in “Basic Instinct.” Any player who's moved to tumescence by digibimbo Lara is in big trouble. (p. 13)

Similarly, Poole (2000, pp. 88-89), argued that “video games, far from being an inferior type of film, are something different altogether” and, although he found “cosmetic proximities” between the two, he also pointed out a series of “structural

dissimilarities.” Specifically: “Video games are superficially like films in one major respect, which is that they communicate to the player through eyes and ears” (p. 67).

Callera (1999) reported that, according to *Tron*'s director Steven Lisberger, “The connection [between cinema and video games] isn't as deep as you might think. It really comes down to just formulaic efficiency. Somebody found a great formula that works, and now both the movie industry and the gaming industry are trying to capitalize on it” (¶ 8).

Sobchack (2000) stressed that “cinematic and electronic technologies are quite different from each other in their concrete ‘materiality’ and particular existential significance.” Moreover, they “differently demand and shape our ‘presence’ to the world and our representation in it” (p. 138).

Other commentators saw deeper analogies between cinema and video games. For instance, Wolf (1997), argued that: “theoretically, many of the same issues are present in video games and film: spectator positioning and suture, point of view, sound and image relations, semiotics, and other theories dealing with images or representation” (p. 11). By systematically analyzing the diegetic use of on-screen and off-screen space in video games, Wolf concluded that “it is perhaps due to the desire to measure up to the standards of visual realism set by film and television that the video game evolved as it has” (p. 19).

Dauphin (1999), *The Village Voice*'s film critic, wrote that “as the technology catches up with audiences' visual acuity, the cinematic interludes are getting harder and harder to separate from the game itself” and concluded that “video games have gone from plagiarizing film to upgrading it” (¶ 2).

Italian film critic Canova (1997) provocatively suggested that “the only video game we are aware of is cinema. Only cinema is able to combine the gaze (video) into a game. The other so-called video games are born out of a linguistic paradox: Though they promise a game for the eyes, they can only be played with hands, or better, with fingers” (p. 16).

Other academics analyzed the phenomenology of video game playing by comparing it specifically to film viewing. Skirrow (1986), for instance, discussed the dichotomy between the “performer” (consumer of video game), and the “spectator,” (consumer of film), concluding:

In the games, ‘audience’ disappears as the distinction between ‘doer’ and ‘viewer.’ The viewer is in a separate space, but appears to be in the position of co-creator, or subject to which everything else is the predicate, the paranoiac environment. (p. 130)

However, this split according to Skirrow, leads to the creation of a “paranoiac environment,” (p. 131) which has alienating consequences on the players:

The performer is also apparently a double or a split subject since the game is simultaneously in the first person (you in the real world pressing the keys), and the third person (a character on the screen, such as a knight, who represents you in the world of the fiction). This is a different kind of split from that in a spectator watching a film, for example, where identifications can be with a variety of characters and positions. (p. 131)

Murray (1997) added that:

Even the act of watching a movie is not passive, nor is reading: We construct alternate narratives as we go along, we cast actors or people we know into the roles of the characters. . . . Similarly, when we watch a movie, we take the separate spaces of the various sets and merge them into a continuous space that exists only in our minds. . . . We bring our own cognitive, cultural, and psychological templates to every story as we assess the characters and anticipate the way the story is likely to go. (p. 110)



Finn (2000) examined the varying degrees of success with which theories from existing media have been applied to computer games. He analyzed a variety of video games with the aid of such concepts as narrative progression and subject positioning to explain to what extent video games draw on the characteristics of Hollywood movies. By doing so, Finn illustrated how these concepts are both enforced by the game and negotiated in the complex relationship between game and film. He noted:

One aspect of video game narratives that unifies films and electronic entertainment is the introductory video: a short animated sequence used to set the scene for the game that follows. Typically, these sequences are created entirely from computer-generated images, and, in terms of genre, perform a similar function to film trailers. Since the advent of the CD-ROM format, cinematic intermissions between sub-games or levels have become commonplace in video games. More importantly, introductory videos also work to discursively position the player within the narrative, providing them with information about the subject positions they are permitted to assume. (¶ 5)

Social critic Stallabras (1993) discussed the interplay between games and cinema, stating that it is “expressed in musical scores which accompany the action, introductory screens, rolling credits, cuts and fades, long shots, and close-ups. Movie spin-offs, whether of *Indiana Jones* or *Robocop*, are only the most obvious examples of an increasing mutual dependence.” Cinematic intermissions in video games have achieved such a level of sophistication that commentators discuss them as if they were movies. Consider, for instance, Hancock’s (2001) analysis of the promotional video for *Metal Gear Solid 2*:

The superb dialogue and acting in the trailer also lift it head and shoulders above its competitors in the games industry in particular. Sparse, minimalist and very effective in its minimalism, the dialogue throughout the piece establishes character, situation and emotional attachments with a grace and brevity, which is nothing short of astonishing. In particular, the opening dialogue, played out as something halfway between a voiceover and radio chatter, offers a truly (*sic*)

superb example of how to mix dialogue and visuals to provide story and character through both channels, rather than just echoing the events of one in the other. . . . There are dozens of other points worth commenting on in this film- the attention to detail, from character movement to ship layout to the flight of a helicopter through literally seconds of the scene, is worth an article on its own, as are the details of the implementation of the incredible atmospheric effects and the way in which the trailer manages to fulfil (*sic*) both its role as a dramatic piece and also show off the gameplay of the game it's advertising. (¶ 4)

Rowley (1998) analyzed the diegetic structures of action video games by comparing them to action film. He concluded that:

Action games, like their cinema counterparts, emphasize spectacle and their own increasing technological sophistication. They knowingly play on genre conventions. The action scenes they present stimulate us in very similar ways. The differences that exist are centered primarily around the player's active involvement in the action, which becomes (at least until boredom sets in), the ultimate high-concept "hook" for differentiating action games from their Hollywood competition. (¶ 5)

No matter how divergent are the views on the ongoing convergence between the two media, many factors indicate that cinema might, in fact, represent a historical precedent of video games. Intertwining threads of mechanical and electronic developments, plus the fantastical worlds elicited through both the mimetic simulation of the real and the invention of the unreal, show a more than tangential relationship between cinema and video games.

Early cinematic experiments, in particular, can be considered as precursors of computer simulations, drawing viewers into a moving picture space and include them in a shared experience. In other words, the pattern of cross-media fertilization indicates that emerging technologies such as video games are bound up in the ideological and cultural precedents of their society. Thus, Darley (2000) is absolutely correct when he observed

that neither digital cinema nor computer games are “nearly as novel as many would have us believe” (p. 37).

These new digital cultural forms simply “signal a kind of renaissance, a return to and a combined continuation of preoccupations, practices, forms, and experiences that were part of an earlier phase of popular entertainment” (p. 37).

What unifies disparate technologies such as the mutoscope, the Sensorama, the interactive videodisc, and the video game, is the desire to empower the spectator through the aid of interaction. As Enzerberger (2000) argued, “the new media are oriented toward action, not contemplation: toward the present, not tradition” (p. 59).

Video games are extending Bazin's myth of total cinema as well as Wagner's vision of total artwork. As Wolf (2000) affirmed, “through various stages over the last hundred years or so, these media have been physically approaching closer and closer to their audience, and gradually engulfing them, enfolding their senses in a digital environment” (p. 206).

As Landon (1992) concluded, “we have learned much about ways of viewing a film such as *The Last Starfighter*, but we must now prepare for simulating rather than just viewing its story” (p. 133). In a similar tone, Joner suggested that, rather than simply “expositing stories to be consumed by a passive audience,” the cinema of the future will “act as a partner to users.” In other words, it will allow the viewers to “create their own stories on the fly as they experience them” (1998, p. 155).

This discussion of film and video game history provides a context for the study. The following section presents a review of the conceptual tools that will be used in the

examination of the dialectic between cinema and video games. It comprises Baudrillard's discussion of the simulacrum, Bolter's and Grusin's concept of remediation, film genre studies, and semiotics. These concepts are the basis for the conceptual framework that will be used to analyze the films.

### ***Conceptual Overview***

The study's goal is to examine the nexus of implications, ramifications, and issues posed by the ongoing confluence of cinema and video games. The exploration of this dialectic between cinema and video games require a multi-disciplinary approach, since the elements involved are, by their own nature, heterogeneous. Video games represent a relatively new form of media. Thus, to better understand their significance in cinema, theoretical tools developed in a new media theory context—specifically, the model of remediation—will be used. Traditionally, cinema has been and successfully analyzed within the field of film studies; therefore this research will borrow some notions and concepts that have been used in that context.

Moreover, since many of the films that incorporate video games center on narratives that dramatize the collapse between the original and the synthetic copy, the pervasiveness of simulation, and the cultural implications of the advent of new media—postmodern themes par excellence—this investigation will be informed by Baudrillard's notion of the simulacrum.

By combining disparate theoretical approaches, this research aims at exploring the modes of incorporation of video games into movies.

*Baudrillard: the concept of simulacrum.* Though it does not constitute a unified theory, postmodernism represents a valuable *corpus* of concepts for approaching slippery texts such as films and video games, as poignantly illustrated by scholars such as Friedberg (1994) and Denzin (1997). The latter noted that “postmodern social theory orients itself to this modern, computerized, mass-media dominated world where information technologies define what it is real” (p. 25). Postmodernism also differs from modernism as it joyfully embraces the variegated and apparently trivial artifacts of popular culture. Baudrillard’s theories of the simulacrum, in particular, represent a key conceptual lens to look into the modes of cinematic incorporations of video games. A *simulacrum* is “that which conceals the truth or the real” (1981, pp. 32-33). It is also defined as the semblance of an image, a “copy without an original” (p. 34). This concept—first discussed by Plato and fictionalized by Philip K. Dick—plays a key role in Baudrillard’s philosophy. The French intellectual suggested that, in contemporary society, the *simulacrum* has become a reality itself, thus, it represents the main form, in which texts are encountered. Images and signs have come to stand for the objects and commodities that make everyday life.

Baudrillard (1983; 1988a, 1988b; 1994) charted the development of postmodernism, suggesting that Western culture has progressed through three historical phases of appearance during which images and signs changed their relationship to reality.

These orders of appearance are:

1. The *counterfeit*, i.e., “the dominant scheme of the classical period, from the Renaissance to the industrial revolution, where signs reflected and then perverted a basic reality, art imitated life” (Baudrillard, 1983, p. 66).
2. *Production*, the dominant scheme of the industrial age, where signs masked the absence of a basic reality, as in the age of mass reproduction (see also Benjamin, 1955/1968).
3. *Simulation*, “the reigning scheme of the current phase,” where signs now bear no relationship to any reality. As a corollary, “the very definition of the real becomes: that of which it is possible to give an equivalent reproduction. . . . The real is not only what can be reproduced, but that which is already reproduced. The hyper-real” (Baudrillard, 1983, p. 67). The implications are both ontological and epistemological. In particular, the French intellectual posited that, after the advent of the *simulacrum*, fiction has become truth (Baudrillard, 1983), and ideologies have become extinct.

In fact:

Today, the entire system is fluctuating in indeterminacy, all of reality is absorbed by the hyper-reality of the code and of simulation. It is now a principle of simulation, and not of reality, that regulates social life. The finalities have disappeared; we are now engendered by models. There is no longer such a thing as ideology; there are only *simulacra*. (Baudrillard, 1976, p. 120)

Moreover,

It is no longer a question of the ideology of power, but of the scenario of power. Ideology only corresponds to a betrayal of reality by signs; simulation corresponds to a short-circuit of reality and to its reduplication by signs. . . . It is always a false problem to want to restore the truth beneath the *simulacrum*. (1983, p. 48)

Finally, the advent of the simulacra, which is accompanied by a constant preoccupation with authenticity (“fetish of the lost object,” as Baudrillard put it), leads in turn to a proliferation of myths of origin and signs of reality: “When the real is no longer what it used to be, nostalgia assumes its full meaning” (Baudrillard, 1983). In the modern age, the problems of industry, production, use of labor, exploitation, and accumulation dominated the organization of the economy and society. But today “a new era of simulation in which computerization, information processing, media, cybernetic control systems, and the organization of society according to simulation codes and models replace production as the organizing principle of society” (Best & Kellner, 1991, p. 118). The shift is “from a *metallurgic* into a *semiurgic* society . . . in which signs take on a life of their own and constitute a new social order structured by models, codes, and signs” (Best & Kellner, 1991, p. 118). Baudrillard argued that signs, simulations, and codes have developed to such a point that it is virtually impossible to distinguish them from social reality. In other words, social reality becomes the signs and simulations, and these end up structuring the social world.

Moreover, Baudrillard suggested that the hyper-real age works under a strategy of deterrence, as if a surfeit or a surrogate of lived experience. As a consequence, the aura that used to surround the lived experience, like the aura of the original work of art (Benjamin 1955/1968), has simply vanished.

The postmodern age is regulated by a new technology of operational simulation, in which cybernetic systems of binary oppositions organize everyday life, as Baudrillard (1988b) illustrated in *The Ecstasy of Communications*.

Baudrillard's discussion closely resembles Boorstin's, who was among the first scholars to recognize that simulation represents a distinct social category. In the seminal work *The Image: A Guide to Pseudo-Events in America* (1961), Boorstin argued that people seek simulations because they are not satisfied with what the mundane, nonfiction, world can offer. Thus, according to Boorstin, simulations offer us forms of phony transcendence over everyday life. Baudrillard asserted that simulations have actually *replaced* everyday life. For a cogent analysis of Baudrillard's concept of hyper-real see also Burnett (1995), and Bignell (2000).

To summarize, Baudrillard argued that the proliferation of *simulacra* led to a revolutionary shift from the realist age (which is marked by what he called the "obsession for reproduction") to the hyper-realistic age, where simulation and models become pervasive. The obsession for simulation seems to pervade American culture. In his classic collection of essays, *Travels in Hyper-reality*, Eco (1975) defined America as the land of hyper-reality, the world of the Absolute Fake, where simulations and imitations do not merely reproduce reality, but either improve it or replace it. Interestingly enough, Eco found in Disneyland the ultimate expression of hyper-reality. Disneyland is a place that no longer even pretends it is imitating reality, but is straightforward about the fact that "within its magic enclosure it is fantasy that is absolutely reproduced." In *America* (1988a), Baudrillard went one step further, asserting that Disneyland is the only reality left in the United States, the first theme-park nation on this planet.

Baudrillard argued that what is considered to be social reality is now indefinitely reproducible and extendable, with the copy indistinguishable from the original, or



perhaps seeming more real than the original. Video games become more real than other forms of interaction, theme parks which are simulacra become more desirable than the originals, and even nature becomes better viewed through national parks and reconstructions. From a Baudrillardian perspective, video games effectively work to undermine the symbolic distance between the metaphoric and the real, as they represent the quintessential form of simulation.

Video games discard the real for the hyper-real by presenting increasingly real simulations of a comprehensive and comprehensible world. Video games represent one of the major catalysts of this ontological reallocation, both a cause and an effect of this cultural implosion, a symptom, and a diagnosis. Baudrillard went as far as declaring that the Gulf War did not really take place, describing it as a media event circumscribed by simulation, nothing more than a series of video-game-like images seen on TV (incidentally, a game based on that event, *Conflict: Desert Storm*, is due on Microsoft Xbox, the simulation of a simulation).

In relation to cinema, Baudrillard contended that it produces an image which shapes and predominates over the reality it reproduces. As Bignell (2000) explained: "For Baudrillard, contemporary media occupy the role of virtual gazes through which history and authentic experience are reformed or indeed abolished except inasmuch as they can be simulated" (p. 31).

Postmodernists also postulate a new conception of the subject as a site of multiple, conflicting, and ultimately unstable identities. Central to this thought is the question of identity. Baudrillard and other postmodernists challenge the concept of a

central, coherent self. In his writings, the French scholar suggested that the age of the dissolution of the self is accompanied by the individual's increasing inability to control reality. The individual becomes a mere fraction of itself and, subsequently, friction follows.

Video games, as previously illustrated, effectively undermine the concept of identity. It may even be argued that the history of video games is the history of the conditions, constructions, and deconstructions of selfhood through projecting one's self and one's agency into the real or object world and attendant virtual and factual world.

Moreover, postmodernists warn against the grand narratives of modernism (Lyotard, 1988), the stories that purport to show history as a progression to a present or future enlightened state. Such narratives are problematic because they produce the idea that history is somehow inevitable, fixed, and perfectly knowable. This idea is also true for video games and simulations, since they embody the idea of a flexible, changeable, customizable history. By their own nature, video games tend to resist narrative closure (Murray, 1997; Levy, 1999). As Murray (1997) observed, "in a shape-shifting world, stories often do not come to a clear end point. Electronic narrative teases us, holding back its gifts. The labyrinth is tricky, full of dead ends, uncertainties, questions that do not resolve" (p. 173). Video games, in other words, manifest a peculiar openness.

According to Eco (1975), an open text is one whose discourse does not try to confine the reader to one specific meaning or interpretation. As a corollary, video games need to provide gratification for the player in other ways. Murray (1997) explained this fascination with electronic games and never ending stories in terms of a continuous

“enactment of a denial of death” (p. 174). Video games, movies, and other forms of narrative “offer us the chance to erase memory, to start over, to replay an event and try for a different resolution” (p.175). This concept will be further explored in the fourth chapter of this thesis.

While undoubtedly fascinating, Baudrillard’s theories have often been attacked from various sides. For instance, Sconce (2000) sarcastically argued that the emergence of postmodern media criticism such as Baudrillard’s is simply another occult fantasy of electronic presence, a mythology that continues to dominate contemporary debates over television, cyberspace, virtual reality, and the Internet.

Therefore, “considered in this respect, film, television, and mainstream fiction have not popularized postmodern theory so much as postmodern theory has rarefied a series of long circulating superstitions bound to the historical imagination of electronic presence” (Sconce, 2000, p. 18), an imagination that stresses the “dissociative properties of electronic media” (Sconce, 2000, p. 18).

Schroeder (1996) is even more critical. In discussing the problem of video game violence, Schroeder argued that “Baudrillard and postmodernist cultural critiques enter the very feedback-loop they analyze, and become part of the problem, as sophisticated theorization of video games itself becomes an ethical issue” (p. 148). Specifically:

Baudrillard-style theories of simulation, at least, are incapable of critiquing video games and immersive media without becoming part of the simulation process, for they hasten the very outcomes they warn of. In describing the collapse of the real into the hyper-real, they influence that collapse, for the textualization of history requires a textual insistence that history is a text. The feedback loop is complete. (1996, pp. 148-149)

Ryan (2000) went as far as contesting the linkage between *simulacra* and electronic images: “A simulacrum for Baudrillard is not the dynamic image of an active process as are computer simulations, but a mechanically produced, and therefore passively obtained, duplications whose only function is *to pass as that which is not*” (p. 29). However, in *The Perfect Crime* (1998), Baudrillard affirmed that all the possible manifestations of the virtual, “have killed and replaced reality,” a statement which recalls a line from the movie *Futureworld* (1976). Here, a killer robot clone tells a woman whom she resembles in every possible detail: “*You are not going to be killed. You will be simply replaced.*” A Western-style duel ensues. One of the two identical characters drops dead. The spectator is left wondering which one, the original or the copy. Others rejected Baudrillard’s notion of virtuality as epistemologically and ontologically deceptive. For instance, another French academic, Levy (1998), emphasized the potential positive aspects of virtual reality:

The Virtual, strictly defined, has little relationship to that which is false, illusory, or imaginary. The virtual is by no means the opposite of the real. On the contrary, it is a fecund and powerful mode of being that expands the process of creation, opens up the future, injects a core of meaning beneath the platitude of immediate physical presence. (p. 16)

Levy’s vision of technology is antithetical to Baudrillard’s. As Ryan (2000) observed: “In contrast to Baudrillard, Levy does not seem to be alarmed by this exponential rise of the virtual, because he sees it as a provocative acceleration of the feedback between the virtual and the actual, rather than a loss of territory for the real” (p. 37).

Similarly, Robins (1996) argued that:

In the discourses of cyberspace and identity things do not appear so problematic because the technological realm offers precisely a form of psychic protection against the defeating stimulus of reality. Techno-reality is where identity crisis can be denied or disavowed and coherence sustained through the fiction of protean imagination: Or it is where the stressful and distressing consequences of fragmentation can be neutralized, and the condition of experienced in terms of perverse pleasure and play. (pp. 82-83)

Thus, the new virtual realities now provide a space in which to resist or embrace post-modernity. The virtual is “a space in which the imperative, and impositions of the real world may be effaced or transcended” (Robins, 1996, p. 84). This thesis assumes that the video game, both as a technological artifact and as a popular ritual, can be read as an exemplification of postmodern theory. The films that incorporate video games into their narratives extend this process of exemplification.

A second assumption is that Baudrillard’s concept of the simulacrum provides a key conceptual lens for understanding film’s incorporation of video games. Although the French thinker has not specifically addressed video games in his writing, his comments on new media, along with his more general critiques of modernity, provide an unchallenged means for exploring the topic. Moreover, as Bignell (2000) argued, postmodernism remains a “flexible and often useful conception which both allows discussion of disparate developments in media culture relating to production, texts and consumption, and performs a role of theoretical discourse which has been left empty by the supposed demise of other theoretical models” (p. 2).

Sobchack (1987), for instance, has used postmodernist concepts to analyze film. In her seminal study of the science fiction film, *Screening Space*. Sobchack discussed the emergence of “the post futurist science fiction movie” (p. 220). Described as the last

evolutionary step of the sci-fi film genre, it fictionalized some of the major tropes of postmodernism. The scholar argued that the post futurist science fiction movie brought “postmodern logic to visibility, symbolically representing the new structures of experience in both the spatially material form of its figures and the temporally material form of its narratives” (p. 244).

Sobchack linked the explosion of postmodern cultural theory—with its heavily science fictional-implicated maps for understanding the electronic lifestyle—with the stunning advances in computer animation and virtual reality technologies. She discussed these advances as something that might at once doom science fiction film as an entertainment form or impose its conceptualizations as the new dominant conceptual frameworks of cultural experience.

The post futurist science fiction film surfaced in the late 1970s and became a standard in the 1980s. According to Sobchack, its emergence coincided with the appearance of new technological devices such as “the digital watch, the personal computer, the video game, and the video recorder” (p. 223). What initially “were elite objects rather than popular commodities,” soon became “an integral part of our everyday lives, consuming us as much as we consume them” (pp. 223-224). In this regard,

Sobchack (1987) argued that:

The SF films of the late '70 and '80 differ from their predecessors—the culture's technological transformations radically altering their technical and aesthetic character and, more importantly, their conception and representation of the lived world. These differences go much further than a simple transformation of the nature and manner of the genre's special effects or of its representation of visible technology. (p. 225)

Of all film genres, the science fiction film is the one that most significantly reflected the new technological pervasiveness:

American cinema has increasingly incorporated the new electronic technology into its very modes of production, distribution, and exhibition. And, as a symbolic medium whose function is representation, the American cinema has also increasingly articulated the new 'sense' and 'sensitivity' generated by this technology and its spatial and temporal transformation of contemporary experience. As might be expected, this articulation is nowhere more evident or given more emphasis than in the SF film—for SF has always taken as its distinctive generic task the cognitive mapping and poetic figuration of social relations as they are constituted and changed by the new technological modes of being-in-the-world. (pp. 224-225)

This concept needs a further elaboration. In her cogent analysis, Kuhn (1990) discussed the cultural instrumentality of science fiction cinema, identifying four major functions and meanings. Science fiction films, Kuhn suggested, are primarily reflections of social trends and attitudes of the time, mirroring the preoccupations of the historical moment in which the films were made. As a genre, science fiction has traditionally provided a privileged space for popular debates about change, including increasingly changes in our media culture.

Additionally, science fiction movies relate to the social order through the mediation of ideologies, society's representations of itself in and for itself. In other words, films diffuse, enact, or even produce certain ideologies that cannot always be read directly from the films' surface contents. Third, science fiction films voice cultural repression in unconscious textual processes, like dreams, associations, and bodily symptoms of psychoanalytic patients that require psychoanalytical interpretation to reveal their hidden meanings. The fourth cultural instrumentality concerns what science fiction films do to and for their spectators, the pleasures and fantasies they activate.

Specifically, film has always been one of the privileged sites for reflecting upon the roles, functions, and implications of technology. Science fiction cinema, in particular, “often assumes a rather confused attitude toward science and technology” (Ruppersberg, 1990 p. 31). It views them as redemptive forces that can lift humanity out of the muck and mire of its own biological implications. But, at the same time, it depicts them “as potentially destructive forces, inimical to humanity” (Ruppersberg, 1990 p. 32). Similarly, Bukatman (1993) noted that technology, “always creates a crisis for culture, and the technologies of the twentieth century have been at once most liberating and most repressive in history, evoking sublime terror and sublime euphoria in equal measures” (p. 5).

Ryan and Kellner (1990) explored this paradoxical ambivalence in a seminal essay titled “Technophobia.” According to the authors, “science fiction films concerning fears of machines or of technology, usually negatively affirm such social values as freedom, individualism, and the family” (p. 58).

They argued that technophobic films revolve around a persistent set of binary bifurcations:

Technology represents artifice as opposed to nature, the mechanical as opposed to the spontaneous, the regulated as opposed to the free, an equalizer as opposed to a promoter of individual distinction, equality triumphant as opposed to liberty, democratic levelling as opposed to hierarchy derived from individual superiority. Most importantly . . . it represents modernity, the triumph of radical change over traditional social institutions. (p. 58)

According to Ryan and Kellner, the significance of technology exceeds simple questions of mechanics, and becomes “a crucial ideological figure. . . . Technology represents everything that threatens the grounding of conservative social authority and



everything that ideology is designed to neutralize” (pp. 58-59). Alternatively, what is not technological, e.g., the family, the individual, and nature, becomes immediately good.

The technophilic approach, on the contrary, regards technology as an empowering force. As Nachbar (1978) noted, among the most enduring myths, the technology as society’s redeemer stands out: “At the heart of American culture is the myth of technology as a protector and a savior. . . . The popularity of computers is based in part on believing that the efficiency of data processing will produce a higher quality of life for everybody” (pp. 34-35). Technophilia thus reflects the American ideology of technological utopianism, which is the belief that technological advances will dramatically improve human social and cultural relations.

In the following sections, the concept of the *simulacrum* (Baudrillard, 1983) and the notion of post futurist science fiction film (Sobchack, 1987) will be integrated with other conceptual tools, specifically Bolter’s and Grusin’s model of remediation and Lévi-Strauss’s structuralist method. These notions will be used to construct a specific framework to study the dialectic between cinema and video games.

***The Model of Remediation.*** Since their introduction, video games have appeared or incorporated in a conspicuous number of films. Bolter’s and Grusin’s model of remediation can be fruitfully used to make sense of this process. Bolter and Grusin (1999) argued that new media tend to translate, reformat, refashion, absorb, and reform other media, “so that the discontinuities between the two are minimized” (p. 47). They define remediation, “the representation of one medium in another” (1999, p. 45), as the dynamic interplay of two related subsidiary processes: *immediacy* and *hypermediacy*.

Immediacy refers to the state of transparent viewer involvement with and within the media object. In other words, it occurs when the viewer is not aware of the medium, but is drawn into the object of the work itself (p. 70). This idea is somehow similar to Coleridge's "willing suspension of disbelief." Among the various expressions of immediacy, Bolter and Grusin mentioned the sensation experienced by the viewer of "being there" (p. 5), the belief in the reality of the image (pp. 70-71), and the erasure of both the medium and the artist in the work of art (pp. 25-27). Hypermediacy, on the other hand, refers to the viewers' awareness of both the medium and the process of mediation. It presents a level of opacity that contrasts with the transparency of immediacy. The essential characteristics of hypermediacy comprise the privilege of "fragmentation, indeterminacy, and heterogeneity" over unity, determinacy, and homogeneity (p. 31); stretching or rupturing the process of realistic representation (p. 34), and a combination of random access and multimedia (p. 31). A few examples of hypermediacy are avant-garde cinema, video games, parody, computer desktops, and postmodernism.

Hypermediacy and immediacy affect both form and content. The degree of fidelity depends upon the goal of the remediation, ranging from the simple and almost completely faithful digitizing of printed texts, to the more aggressive remediation of rock CD-ROMs that provocatively juxtapose media, to the nearly total absorption of one medium by another in the web cam site. Moreover, as the new media shape audience tastes, the old fight back by reversing the process. Television newscasts, for example, increase their visual appeal through imitating web site designs. For instance, the recent

reshaping of the *CNN Headline News* channel (2001) emulates CNN's own web page aesthetics.

However, the act of remediation, "ensures that the older medium cannot be entirely effaced; the new medium remains dependent on the older in acknowledged or unacknowledged ways" (p. 47).

Bolter and Grusin suggested that:

Computer games like *Myst* and *Doom* remediate cinema, and such games are sometimes called "interactive film." The idea is that the players become characters in a cinematic narrative. They have some control over both the narrative itself and the stylistic realization of it, in the sense that they can decide where to go in an effort to dispatch villains (in *Doom*) or solve puzzles (in *Myst*). They can also decide where to look, where to direct their graphically realized points of view, so that in interactive film, the player is often both the actor and director. (p. 47)

According to the Bolter and Grusin, computer games produce a form of "hyper mediation" through their remediation of television, and transparency through their remediation of film. Individual games generally tend to go in one or the other direction, but sometimes, a game may deliberately oscillate between the two effects.

At the same time, "like television, film is also trying to absorb and repurpose digital technology" (p. 48). As a consequence, "all current media function as remediators" (p. 55), appropriating forms and techniques and refashioning them "in the name of the real" (p. 99). According to Bolter and Grusin, these three inter-connected processes are constantly occurring between all kinds of media: analog, digital replicas of analog media, and digital media. It also shows how video games reaffirm and resuscitate old codes (film) and how film directly or indirectly resists the new ones.

Thus, “no medium, it seems, can now function independently and establish its own separate and purified space of cultural meaning” (p. 55). In other words, video games, as all other emerging media, have cannibalized the content and imitated the form and design of film. At the same time, film struck back by borrowing and reformulating the conventions, innovations, visual styles, and other trademarks of video games.

Drawing on Bolter and Grusin’s thesis that the process of remediation essentially consists in film “trying to absorb computer-graphics into its traditional structure,” this research argues that films are remediating video games into their narratives as well.

In fact, films that incorporate video games do so not only to take full advantage of their advanced language, iconography, and techniques, but also to provide a *critical discourse*.

This thesis also examines whether this process of incorporation has led to the emergence of a new film genre. But in order to do so, it is first necessary to define what a genre is and how it can be studied.

***Genre Criticism and Structuralism.*** Genre is one of the essential categories for the analysis of popular culture. A genre is a kind of work, a classification criterion, and also formulas that artists draw upon for the production of artworks and conventions that enable consumers to make sense of new works based on their knowledge of previous works in the same category. Genres should not be understood as rules or restrictions so much as enabling mechanisms that allow popular culture to be easily consumed and broadly appreciated. All works are born from a mixture of invention and convention. A work that is pure invention is unlikely to be fully understood or appreciated; a work that

is pure convention is likely to be boring and uninteresting. Popular aesthetics center on this effort to reach the right balance between invention and convention.

Film genres are categories, classifications or groups of films that have similar, familiar or instantly-recognizable patterns, techniques or conventions that include one or more of the following elements: setting, content, themes, plot, motifs, styles, structures, situations, characters (or characterizations), and stars. The main genres are the Western, crime (gangster), horror, the musical, melodrama, science fiction, and comedy. Genre categories are broad enough to accommodate the vast majority of films, even though film categories can never be too rigid. In other words, the large majority of films can be associated with one major genre, although a constant cross-pollination occurs across genres. As a corollary, many films are considered crossbreeds or hybrids with three or four overlapping genre types that identify them. Collins (1995) suggested that this cross-pollination is the inevitable result of the increasing media awareness of the postmodern audience. Since neither suggested cause is expected to vanish, it seems likely that the prominence, relevance, and number of hybrid films will considerably increase in the coming years.

Examples of sub-genres abound: aviation films, biographical films, buddy films, caper films, chase films, “chick” films, disaster films, documentary films, espionage films, experimental films, “fallen” woman films, jungle films, legal films, martial arts films, medical films, military films, parody films, police films, political films, prison films, religious films, road films, slasher films, sports films, swashbucklers, women’s “weeper” films, and more. Examples of different forms or types of film comprise

animations, features, serials, or shorts among others. In film studies, categories and groups of films are usually examined in the context of genre studies. Criticism, in this context, is defined as “an act of ordering, of organizing relationships, of identifying and observing patterns that make the cinematic experience meaningful as well as emotional, comprehensible as well as felt” (Bywater & Sobchack, 1993, p. xiii).

Genre criticism is a tradition imported from outside the cinema, specifically from literature. As Turner (1993) noted, “genre is a term appropriated from literary studies and used to describe the way in which groups of narrative conventions (involving plot, character, and even location and set design) become organized into recognizable types of narrative entertainment” (p. 35). In literature, ideas of genre can be traced as far back as Aristotle, who tried to categorize different styles of the art of writing and to identify the traits associated with each.

More disciplinarian versions of this idea turned these descriptions into prescriptions, and the concept of genre was further expanded. Aristotle’s main categories, drama, poetry, and fiction, have been further sub-divided into tragedy, epic, and satire. As Schatz (1981) pointed out, however, there is a crucial difference between literary genre theory and the genre theory practiced in film criticism. Literary genre theory uses genres as a categorization method, a way of organizing texts. Although the author and reader may well be aware of these critical frameworks, this is not necessarily the case. In film criticism, genre came to be intricately linked with the idea of cinema as industry. Genres make filmmaking more efficient (by allowing the re-use of plots, sets, and the like) as well as more marketable (by using generic conventions as a way of

selling the film to the audience). Genres in film, therefore, are seen as more than arbitrary: They originate at the level of production. In film studies, genre criticism is usually considered antithetical to auteurism, a concept by Bazin (1957) that put forth the idea of cinema as a form for the expression of the artist, i.e., the director.

Auteurism relied on “Alexandre Astruc’s idea of the ‘camera stylo’ and spoke of film as a language and the film director as a kind of writer, motivated by a desire for personal expression, wielding a lens instead of a pen” (Nevermore, 2000, p. 6). Cook (1980) found one of the first examples of modern genre criticism in Bazin’s essays on the Western in the mid-1950s. Although English-language genre criticism really started to emerge in the mid 1960s to the early 1970s, its roots can be traced back to Warshaw’s seminal essays, on the *Partisan Review*, such as “The Gangster as Tragic Hero” (1948) and “Movie Chronicle: the Westerner” (1954).

Genre criticism tends to concentrate on American cinema and is “clearly biased in favor of popular film made for a mass audience” (Turner, 1998). It assumes that box office is “a barometer of cultural approval and disapproval of the film’s hidden messages and values” (pp. 90-91). It places a high value on popularity and on repetition and variation of a classic form rather than on novelty and invention. In genre criticism, “the film-maker, like the novelist or the story-teller, is a *bricoleur*, a term used extensively by Lévi-Strauss, a sort of handyman who does the best s/he can with the materials at hand. The film-maker uses the representational conventions and repertoires available within the culture in order to make something fresh but familiar, new but generic, individual but representative” (Turner, 1988, p. 129).

Genre criticism has investigated genres such as the gangster, the Western, the hard-boiled detective film, the traditional horror film, and the war film. Classic studies in this field are Cawelti's *The Six-Gun Mystique* (1971), Will Wright's *Six Guns and Society: A Structural Study of the Western* (1975), Stuart M. Kaminsky's *American Film Genres* (1974), and Jeffrey Mahan's *American Television Genres* (1986).

As Altman (1999) concluded, "film genre study has over the last two decades established itself as a field separate from literary genre study. As such, it has developed its own assumptions, its own modus operandi, and its own objects of study" (p. 13). In his essay on "The Question of Popular Science," printed by the *Journal of Popular Film and Television*, Cawelti (1985, p. 55) summarized the strengths of the genre criticism approach:

1. Genre criticism "provides a simple method for dividing up the critical work: it makes it possible to specialize in one genre, to examine subgenres of a particular type or period."
2. Genre criticism "encourages the comparison and synthesis of different analyses of the same genre, i.e., of different formulations of the supertext, and thereby increases the sophistication of generic definition."
3. Genre criticism "makes possible the comparisons of particular texts in different media and from different periods because they relate to the same supertext."

Thus, "the essence of genre criticism is the construction of what, in contemporary jargon, might be called a macro or supertext", whereas by supertexts, critics refer to "an abstract of the most significant characteristics or family resemblance among many



particular texts, which can accordingly be analyzed, evaluated, and otherwise related to each other by virtue of their connection with the supertext” (p. 55).

Genre analysis has been widely used in media studies. As Edgerton (1985) noted:

Genre is still one of the central linchpins of the contemporary critical view. This approach has certainly grown with the field of media studies itself, being influenced in the past two decades by the influx of both complementary and contradictory assumptions from such theoretical areas as phenomenology, semiology, structuralism, and post-structuralism. (p. 53)

The genre criticism approach is both descriptive and analytical. As Bywater and Sobchack (1993) observed: “Genre criticism lies somewhere about midpoint on the spectrum bounded by contextual criticism at one hand and textual criticism at the other” (p. 89). Genre criticism explores the relationship between the genre and the society that produces it. It wonders about the popularity of the texts and is concerned about the messages relayed between the manufacturer and the consumer and the society at large. Genre criticism is inextricably tied to a nexus of extra-filmic considerations, e.g., economics and ideology that surround the films. It asks questions such as: Are these texts popular, and if so, why? Who is responsible for the invention and maintenance of the genre? What messages are being relayed between the text and the audience? Is the video game movie genre a reflection of contemporary American society and a unique artistic expression?

In *Film/Genre* (1999), film critic and historian Rick Altman argued that traditional genre theory has failed to achieve consistent results not only because of uncertain definitions of generic content (the so-called generic corpus), but through a fundamental confusion about generic definitions. Altman pointed out that genres are

usually defined in terms of either certain signs (taking the western as an example, the guns, horses, wagons, towns, landscapes, or even the western stars such as John Wayne or Clint Eastwood) or certain plots and themes (such as Wright's notions of the western's classic stories). He labeled the former group the "semantic elements" and the latter the "syntactic", and suggested that genre theory needs to keep the distinction clearly in mind if it is to come to terms with issues such as generic evolution, and cross-genre pollination in particular.

Altman proposed a basic model of genre creation using these terms. He argued that genres start out with a set of semantic elements, and only achieve true genre status when they complete a process of evolving an accompanying syntax. He is aware that the syntactic and semantic elements both continue to shift after this process is completed. His observations will come at hand in the analysis of the selected films. Genre theorists conducted their analyses of films with the theoretical tools that originated in such disparate fields as anthropology and literary studies.

In particular, film critics borrowed concepts from Lévi-Strauss and Propp, who looked at the way genres represented universal narratives that played out deep concerns of society. Lévi-Strauss (1967, 1969) investigated the hidden structure behind the myths of primitive cultures and concluded that the significance of the myth is that it presents certain binary oppositions that are universal concerns in all cultures. Binary or digital oppositions are pairs of mutually exclusive signifiers in a paradigm set representing categories, which are logically opposed and define a complete universe of discourse

(relevant ontological domain), e.g., alive and not-alive. In such oppositions each term necessarily implies its opposite and there is no middle term.

Fiske (1990) added that, according to Lévi-Strauss, “the construction of binary oppositions is the fundamental, universal sense-making process. It is universal because it is a product of the physical structure of the human brain and is therefore specific to the species and not to any culture or society” (p. 117). Lévi-Strauss suggested that myths provide a logical model in the form of a narrative structure that resolves abstract conflicts and dichotomies such as life vs. death, good vs. evil, tradition vs. change, and nature vs. culture.

Lévi-Strauss also argued that myths are universal, trans-cultural, and have always been a constitutive form in one’s experience of the world. According to Fiske (1990), they act as:

Anxiety reducers in that they deal with the contradictions inherent in any structure of binary oppositions, and, although they do not resolve them (for such contradictions are often finally irreconcilable) they do provide an imaginative way of living with them, and coping with them so they do not become too disruptive and do not produce too much cultural anxiety. (pp. 122-123)

Thus, “the ultimate function of myth, for Lévi-Strauss, was to represent the apparent resolution of a social conflict” (Stam, Burgoyne, and Flitterman-Lewis, 1992, p. 18). Lévi-Strauss saw the myths of a culture as variations on a limited number of basic themes built upon oppositions to nature vs. culture. His method of analyzing the structure of myths consisted in “breaking down its story into the shortest possible sentences” (Lévi-Strauss, 1969, p. 211), or the mytheme, analogous to the “morpheme,” the smallest meaningful unit in linguistics. Stam, Burgoyne, and Flitterman-Lewis

argued that: “the constituent elements of myth, like those of language, have no fixed meaning in themselves, but only acquire meaning in relation to other elements” (1992, p. 18). They added that, according to Lévi-Strauss, “a particular myth could only be comprehended in relation to a vast system of other myths, social practices, and cultural codes, all of which could only be made comprehensible on the basis of structuring oppositions” (1992, p. 18). This method is particularly useful for analyzing cultural artifacts and texts. As Lefkowitz (1989) stated:

Moving beyond the level of sentences to larger units of speech and writing, structuralism identifies the *underlying* structures shared by the individual *surface* manifestations of a system. It provides methods of analysis. Structural anthropology, particularly Claude Lévi-Strauss's work with myth, was an important application and extension of structuralism. Discovering the structural similarities among myths rewarded analysts with discoveries about the larger social functions of mythmaking. (pp. 62-63)

As Fiske (1990) noted, “in industrial societies, the mass media are often considered to perform a function equivalent to that of myth in tribal, oral ones. So Lévi-Strauss’s theories can be applied to the contemporary mass media, in both their factual and factual modes. . . . This may be extended, too, so that each example of a genre may be seen as a particular realization of the potential of its deep structure” (pp. 124-125). Fiske (1990) summarized the merits of using this method to analyze films or any other forms of narrative:

Structuralism shows how the actual objects and events of a narrative relate to its deep structure in two directions. First they act as real and therefore unchallengeable examples of more abstract and therefore problematic cultural concepts: They ground the abstract in the concrete, the cultural in the natural. Second, they are themselves given significance by their relationship with the deep structure of abstract and broad cultural categories they are moved out of the and in the structured and thus out of the meaningless and into the meaningful. . . . There is a constant two-way movement up and down the structure, between the

concrete and the abstract, between the surface and the depth, that's characteristic of all mythic narrative. (pp. 117-118)

Thanks to its versatility, the structural method has been widely used in film studies. Structuralism tries to avoid the subjective, critic-based flaws of many other film analysis methods, and to use a more empirical, objective approach. The creation of structuralist analysis helped introduce the notion of systematic study and scientific rigor into film criticism. It looks at a film as a form of language, and like linguistics, it studies reality as a system of signs. Structuralism assumes that meaning is culturally constructed, and that meaning is arbitrarily assigned to the signifiers. Once a signifier is created to represent something, its meaning becomes a cultural convention. The structuralist method attempts to understand how meaning is culturally constructed through signs. As Kuhn (1990) observed:

Structuralism assumes both that the texts are constructs, that textual meanings are made, not already there; and also, that while signification processes may not be immediately observable, they can be discovered through a process of deconstruction. The underlying ideological operations of a film text or a group of texts are exposed by means of symptomatic readings, which attend to what is not there—the gaps, the silences, the structuring absences, as much as to what is. (p. 54)

In other words, structuralists argue that film does not copy external reality, but instead constructs its own reality through a structure of signifiers. Structuralism focuses on the syntagmatic axis of the linguistics model, and studies the sequence of signs (De Saussure's *parole*), similar to the concept of a grammar, a deep structure (*langue*). As Kuhn (1990) noted, structuralism can be extremely valuable in uncovering the assumptions, ideas, and ideologies that lie behind the film narratives:

Given their capacity for self-concealment, ideologies cannot as a rule be

uncovered by means of an empiricist approach, one which attends to the immediately observable; it will usually be necessary to dig deeper, to seek out subtexts and underlying meanings. For these reasons, ideological readings of films—analysis of film texts and genres directed at revealing their ideological work—have tended to adopt structuralist rather than empiricist approaches to method. (p. 54)

Applications of structuralism in film genre studies abound. Perhaps the best examples can be found in Kitses' (1970) analysis of the Western genre. Kitses' main assumption is that genre films are myths. In other words, important and often conflicting attitudes about culture and the individual relationship to it are rehearsed and repeated in a ritualistic manner as each audience attempts to make sense out of opposing values.

As Lévi-Strauss (1955) suggested, "when two characters are opposed in a binary structure, their symbolic meaning is virtually forced to be both general and easily accessible because of the simplicity of the differences between them" (p. 17). Schatz (1981) added that the "thematic oppositions or recurring cultural conflicts" identified by Lévi-Strauss represent the genre's determining feature, thus "the sustained popularity of any genre indicates the essentially irresolvable, irreconcilable nature of those oppositions" (p. 34).

Sharet (1985) noted that, in the postmodern framework, "myths are viewed as mediation, as simulacra rather than as formative stories at the base of a signifying system" (p. 85). Structuralism represents a valuable tool for looking at the primary oppositions at work in films. It has been useful in revealing the conventions and assumptions of the narratives. However, its usefulness is limited. It needs to be integrated with other methods of analysis. The only way to gain a thorough understanding of a film is to look at it through many different methods of analysis, and to

compare the results from the methods to see what their agreements and contradictions reveal about the film as a whole. Hence the need to use methods developed in new media studies, literary studies, and semiotics.

***Intertextuality, transtextuality, and theory of adaptation.*** Other conceptual tools that will be used in this study to explore and understand the dialectic between film and cinema, are Kristeva's (1980) notion of intertextuality and Genette's (1997) concept of transtextuality.

The semiotic notion of intertextuality is associated primarily with poststructuralist theory. According to Stam, Burgoyne, and Flitterman-Lewis (1992), intertextuality can be defined as:

The transposition of one or more system of signs into another, accompanied by a new articulation of the enunciative and denotative position. . . . The intertext of a work of art, then, may be taken to include not just other artworks with the same or comparable form, but also all the "series" within the singular text is situated. (p. 204)

Ryan (2000) described intertextuality as "the practice of integrating a variety of foreign discourses within a text through strategies of quotation, commentary, parody, allusion, imitation, ironic transformation, rewrites, and decontextualizing/recontextualizing operations" (p. 7). Fiske (1987) added that:

The theory of intertextuality proposes that any one text is necessarily read in relationship to others and that a range of textual knowledge is brought up to bear upon it. These relationships do not take the form of specific allusions from one text to another and there is no need for readers to be familiar with specific or the same texts to read intertextually. Intertextuality exists rather in the space between text. (p. 108)

This implies, among other things, that a film text is related to other texts, even though it might not consciously borrow from a given text or genre or formula. Kristeva

(1980) referred to texts in terms of two axes: a horizontal axis, which is organized around genre or characters among primary texts and connects the author and reader of a text; and a vertical axis, between a primary and a secondary text (criticism, publicity, journalistic articles), in which the latter explicitly refers to the former. In other words, the vertical axis connects the text to other texts. These two axes are shared codes: Every text and every reading depends on prior codes. According to Kristeva (1980), every text constructs a "mosaic of citations," (p. 71) a palimpsest of traces, where other texts may be read. The notion subverts the idea of texts having fixed, recognizable boundaries. Intertextuality, therefore, is an extremely useful concept in examining the dialectic between video game and film, as it posits the film in a wider context than mere cinema.

Therefore, the concept of intertextuality is not limited to the influence that one filmmaker has on another, but involves a much more complex set of influential aspects.

Moreover, this concept is strictly connected to Lévi-Strauss's analysis of myths. As Stam, Burgoyne, and Flitterman-Lewis (1992) suggested, "the conceptual necessity of the intertext is foregrounded in Lévi-Strauss' analysis of Native American myths.

The anthropologist found that a particular myth could be comprehended only in relation to a vast system of other myths, social practices, and cultural codes" (pp. 204-205). The authors concluded that intertextuality is a valuable theoretical concept that "relates the singular text principally to other systems of representation" (p. 205). They argued that, in order to even discuss the relation of a work to its historical circumstances, it is necessary "to situate the text within its intertext and then relate both text and intertext to the other 'systems' and 'series' which form its context" (p. 205).



Another useful conceptual tool in understanding the logic between films and video games is Genette's (1997) notion of *transtextuality*, defined as "all that which puts one text in relation, whether manifest or secret, with other texts" (p. 79). Building on Kristeva's notion of intertextuality and Bakhtin's concept of "deep generating series," Genette (1997) posited five different types of transtextual relations: intertextuality, paratextuality, metatextuality, architextuality, and hypertextuality.

Intertextuality is the "effective co-presence of two texts" in the form of quotation plagiarism, and allusion, the latter defined as "a verbal or visual evocation of another film, hopefully as an expressive means of commenting on the fictional world of the alluding film" (p. 206). The insertion of pre-existing film sequences into new movies is a form of intertextuality.

There are films, such as Woody Allen's *Zelig* that use this device as their "central structuring principle (Stam, Burgoyne, & Flitterman-Lewis, 1992, p. 206). Paratextuality refers to the relation between a text and its paratext, that is, all the "accessory messages and commentaries which come to surround the main body of text." (Genette, 1997, p. 86). In literature, paratextual elements are titles, headings, prefaces, epigraph, dedications, acknowledgments, footnotes, illustrations, and so forth. But, as Stam, Burgoyne and Flitterman-Lewis (1992) noted, this notion leads to "a mine of unanswerable questions" regarding the lines of demarcation between "texts and *hors-texte*" (p. 207). Here, the crucial issue is: Where does a text *exactly* begin? Where does it end? As previously illustrated, the DVD-film makes an interesting case. This specific

text presents a high level of paratextuality, since it is becoming increasingly harder to distinguish the main feature from its adornments and complements.

The third type of Genette's transtextuality is metatextuality, which consists in "the critical relation between one text and another, whether the commented text is explicitly cited or silently evoked" (1992, p. 208). Stam, Burgoyne, and Flitterman-Lewis (1992) cited the New American Cinema's "metatextual critiques of classical Hollywood cinema" (p. 208) as an example. The commentators also warn that, in practice, it is not easy to distinguish metatextuality from hypertextuality (that is, the relation between a text and an anterior text, which it translates or modifies).

Genette's fourth category, architextuality is defined as the designation of a text as part of a genre. Otherwise put, architextuality "has to do with a text's willingness, or reluctance, to characterize itself directly or indirectly in its title as a poem, essay, novel, film" (p. 208). This concept refers to the taxonomies suggested or refused by the titles of infratitles of a text, and "has to do with an artist's willingness or reluctance to characterize a text generically in its title" (Stam, 2000, p. 65). For instance, as some film titles align a text with a literary antecedent, others literally signal a sequel, or use unconventional graphic and linguistic approaches. Stam, Burgoyne, and Flitterman-Lewis (1992) observed that, "although a film need not to designate itself as, first and foremost, a film, certain reflexive film-makers have chosen to accentuate the obvious in their titles: Mel Brooks's *Silent Movie*, Bruce Conner's *A Movie*" (p. 209).

Genette's most fascinating notion is hypertextuality, defined as the relation between a text and an anterior hypotext, a text or genre on which it is based but which it

transforms, modifies, elaborates, or extends (including parody, spoof, sequel). Stam, Burgoyne, and Flitterman-Lewis (1992) argued that the term hypertextuality is “rich in potential application to the cinema, and especially to those films which derive from pre-existing texts” (p. 209). In particular, they noted, “filmic adaptations of celebrated novels, for example, are hypertexts derived from pre-existing hypotexts which have been transformed by operations of selection, amplification, concretization, and actualization” (p. 209). Moreover, hypertextuality “calls attention to all the transformative operations that one text can operate on another text” (p. 209), or even an entire genre (the authors cite Kasdan’s *Body Heat* (1981) as an evocation of the corpus of 1940s film noir in terms of plot, character, and style).

Stam, Burgoyne, and Flitterman-Lewis (1992) suggested that a more comprehensive conception of hypertextuality could include “many of the films generated by the Hollywood combinatory: remakes, sequels, generic pastiche, and reworkings, spoofs, and parodies” (p. 210). The common denominator of these hyper-texts is that because they all assume spectatorial competence in diverse generic codes, “they are calculated deviations meant to be appreciated by discerning connoisseurs” (p. 210).

Although the concepts of intertextuality and transtextuality originated in literary studies, their validity could be extended, with some minor modifications, to the study of film. It is also important to remember that structuralist and poststructuralist studies tend to treat all texts (cinema, music, video games, and so forth) as worthy of the same attention as literary texts. They are also useful conceptual tools for the analysis of filmic adaptations of video games.

As Naremore (2000) noted, “since the 1960s, academic writing on adaptation has gained considerable sophistication by making use of important theoretical writings on both literature and film, including the structuralist and poststructuralist poetics of Roland Barthes, the narratology of Gerard Genette, and the neoformalism of Bordwell and Thompson” (p. 7).

According to Griffith (1997), Béla Balázs was the first film theorist to address the subject of filmic adaptations, although “his definition of adaptation excludes the most common sense of the world as used in film criticism, an unsatisfactory compromise” (pp. 20-21). It is not a surprise, then, that film critics are willing to explore the dynamics of adaptation looked elsewhere. Naremore (2000) noted, however, that a) the large majority of the available literature on the topic tends to focus largely on adaptations of novels; b) it tends to acritically emphasize the cultural status of the source and diminish the artistic value of the adapted text; and, c) it oscillates between two schools of thought on adaptation embodied by Bluestone and the French New Wave filmmakers and critics.

The former performed the first “full-scale academic analysis of film adaptation in America” (p. 6). In *Novels into Film: The Metamorphosis of Fiction Into Cinema*, Bluestone (1957) argued that some films literally metamorphose novels into another medium, that is, cinema, which relies on peculiar formal and narratological possibilities.

According to Griffith (1997), Bluestone’s formalism “emphasizes the reader’s or viewer’s response to the novel or film” (p. 21) and explores “the physical and psychological differences in our perception of time while reading a novel or viewing a film” (p. 22). As for the adaptation, Bluestone’s theory relies on the metaphor of

*translation*, which governs how codes move across sign systems. As Nevermore (2000) argued,

Writing in this category usually deals with the concept of literary versus cinematic form, and it pays close attention to the problem of textual fidelity in order to identify the specific formal capability of the media. (p. 8)

Bluestone (1957) noted that the two media present insurmountable differences.

He identified the principal forces that regulate the task of adapting a novel into film, suggesting that the two media cannot be compatible and are irreconcilable simply by the intrinsic differences in their natures. According to Bluestone, each medium imposes a different perceptual mode, and activates different reading skills.

Thus, the dialectic between novel and film is indeed “overtly compatible,” but “secretly hostile” (p. 2). Among the “overtly compatible” examples, Bluestone cites Griffith’s cinematic adaptations (Tolstoy’s *Resurrection*, Charles Reade’s *The Cloister and the Hearth*).

This compatibility has a series of economic consequences. For instance, increased book sales of novels usually follows the cinematic releases, thus the commercial link between film and literature becomes apparent. Yet, the two media remain “secretly hostile” (Bluestone, 1957, p. 2). This hostility is intrinsic to the very nature and origins of the film and the novel. The former, Bluestone argues, was born as a “gadget”, while the novel presents a more intricate, one might say “prestigious” genesis (1957, p. 6).

Moreover, the two media use remarkably different languages. One relies on the written word. The other uses images. Their inner and outer workings are very different.

His conclusion is that “film will always have greater difficulty extending boundaries than the novel, as its audience’s expectations are far more limited” (p. 39). Moreover, although the novel can use three tenses for narrating purposes, the film only uses one.

The exponents of the French New Wave, however, rejected the so-called “Cinema du Papa”, or “tradition of quality,” that was based on respectable literary adaptations.

Although French directors such as Truffaut, Godard, and others adapted novels into film, they opted for lowbrow, obscure titles rather than well-known works, so that they could “foreground their own artistry” (Nevermore, 2000, p. 7).

This approach relies on the metaphor of performance, and it “too, involves questions of textual fidelity, but it emphasizes difference rather than similarity, individual styles rather than formal systems” (Nevermore, 2000, p. 8). Nevermore (2000) found at least two major problems associated with the concept of adaptation as translation. The first is that the majority of writing that assumes this notion at its core “tends to valorize the literary canon and essentialize the nature of cinema” and that it “betrays certain unexamined ideological concerns because it deals with sexually charged material and cannot avoid a gendered language associated with the notion of fidelity” (p. 8). As Stam (2000) argued:

Much of the discussion on film adaptation quietly reinscribes the axiomatic superiority of literary art to film, an assumption derived from a number of superimposed prejudices: *seniority*, the assumption that older arts are necessarily better arts; *iconophobia*, the culturally rooted prejudice . . . visual arts are necessarily inferior to the verbal arts; and *logophilia*, the converse valorization, characteristic of the “religions of the book,” of the “sacred word” of holy text. (p. 58)

In recent years, however, the concept of adaptation has undergone a major transformation. Andrew (2000), for instance, pointed out in a seminal essay that “every representational film adapts a prior conception. Indeed, the very term representation suggests the existence of a model” (p. 29). After noting that “the making of film out of an earlier text is virtually as old as the machinery of cinema itself.”

Dudley (2000, p. 29) listed three different adaptation strategies: borrowing, intersecting, and fidelity of transformation. According to Andrew (2000), borrowing is the most frequently used mode of adaptation. Here, “the artist employs, more or less extensively, the material, idea, or form, of an earlier, generally successful, text” (p. 30).

The audience’s enjoyment of these kinds of adaptations derives from “basking in a certain pre established presence and to call up especially powerful aspects of a cherished work” (p. 30).

As an exemplification of the mode of borrowing, Andrew (2000) cited adaptations from literature to music, opera, or painting. The study of such adaptations requires the analyst to:

Probe the source of power in the original by examining the use made of it in adaptation. Here the main concern is the generality of the original, its potential for wide and varied appeal, in short, its existence as a continuing form or archetype in culture. (p. 30)

And the opposite mode of adaptation is intersecting. Andrew (2000) noted:

Here the uniqueness of the original text is preserved to such an extent that it is intentionally left unassimilated in adaptation. The cinema, as a separate mechanism, records its confrontation with an ultimately intransigent text. (p. 30)  
After noticing that contemporary cinema is “increasingly interested in

intersecting” (p. 31) as a diegetic device, Andrew (2000) explained that these kinds of

adaptations “present the otherness and distinctiveness of the original text, initiating a dialectical interplay between the aesthetic forms of one period and the cinematic forms of our own period” and refute “the commonplace that adaptations support only a conservative film aesthetics” (p. 31). The study of this mode requires the analyst “to attend the specificity of the original within the specificity of cinema. An original is allowed life, its own life, in the cinema” (p. 31).

The third key concept explored by Andrew (2000) is fidelity of adaptation and transformation, which assumes that the task of adapting consists in “the reproduction in cinema of something essential about an original text” (p. 31). Fidelity is directly associated with the idea that a film should reproduce the letter and the spirit of a text.

The letter comprises elements of fiction usually elaborated in any film script: the characters and their interrelation; the geographical, sociological, and cultural information providing the fiction’s context; and the basic narrational aspects that determine the point of view of the narrator (p. 31).

The faithful reproduction of these aspects, according to Andrew (2000), is a relatively easy task that can be performed “in a mechanical fashion.” It is much harder, however, to maintain a fidelity to the spirit, meaning the text’s original tone, values, imagery, and rhythm, since to render these “intangible aspects is the opposite of a mechanical process” (p. 32). This represents a crucial problem because film and literature operate in drastically different ways:

Generally film is found to work from perception toward signification, from external facts to interior modifications and consequences, from the givenness of a world to the meaning of a story cut out of that world. Literary fiction works oppositely. It begins with signs (graphemes and words), building to propositions



that attempt to develop perception. (p. 32)

The notion of fidelity is highly problematic. Stam (2000) listed several reasons why this notion is methodologically and epistemologically useless in analyzing the modes of adaptation. According to Stam, “first, it is questionable whether strict fidelity is even possible. A counter-view would insist that an adaptation is automatically different and original due to the change of medium” (2000, p. 55). Second, this concept assumes that “a novel ‘contains’ an extractable ‘essence,’ a kind of ‘heart of the artichoke’ hidden ‘underneath’ the surface details of style. . . . But in fact there is no such transferable core: A single novelistic text comprises a series of verbal signals that can generate a plethora of possible readings, including even readings of the narrative itself” (p. 57). The third major problem relates to the wider question: Fidelity to what? It is not clear if the adapted text should be faithful to the plot in every detail rather than the artist’s explicit or implicit intentions, which are usually the result of interpretations and are not a given.

A second, equally problematic notion is specificity. As Stam (2000, p. 58) noted, “this medium-specificity approach assumes that every medium is inherently ‘good at’ certain things and ‘bad at others.’ A cinematic essence is posited as favoring certain aesthetic possibilities and foreclosing others, as if specific aesthetics were inscribed on the celluloid itself” (pp. 58-59). Apart from the fact that this notion is ontologically flawed, even when considered in terms of a more functional diacritical specificity it cannot be of any use. By diacritical specificity, Stam referred to the material of expression, such as the written word for the novel, or the image, sound, music, sound,

and text of the film. He concluded that these media's essence "is to have no essence, to be open to all cultural forms" (p. 61).

Thus the very idea of identifying their specificity is a chimera. Hence the need for a different trope, i.e., translation: "The trope of adaptation as translation suggests a principled effort of intersemiotic transposition, with the inevitable losses and gains typical of any translation" (Stam, 2000, p. 62). This intersemiotic transposition assumes that adaptations "can take an activist stance toward their source novels, inserting them into a much broader intertextual dialogism" (p. 64). As noted above, poststructuralism assumes that every text form is an "intersection of textual surfaces," therefore:

All texts are tissues of anonymous quotations, confluences, and inversions of other texts. In the broadest sense, intertextual dialogism refers to the infinite and open-ended possibilities generated by all the discursive practices of culture, the entire matrix of communication utterances within which the artistic text is situated, which reach the text not only through recognizable influences, but also through a subtle process of dissemination. (p. 64)

Thus, film adaptations "are caught up in the ongoing whirl of intertextual reference and transformation, of texts generating other texts in an endless process of recycling, transformation, and transmutation with no clear point of origin" (Stam, 2000, p. 66). Stam (2000) used Genette's concept of hypertext to understand the dynamics of adaptations and concluded that it is a "matter of a source novel hypotext's being transformed by a complex series of operations: selection, amplification, concretization, actualization, critique, extrapolation, analogization, popularization, and reculturalization" (p. 68).

Stam (2000) further elaborated that the source novel can be seen as "a situated utterance produced in one medium and in one historical context, then transformed into

another equally situated utterance that is produced in a different context and in a different medium” (pp. 68-69). Stam’s (2000) notion of adaptation as hypertext will be extremely useful when analyzing the category of films based on existing video games. Since the author is referring to novels and not video games, a few theoretical adjustments will be needed.

As this brief overview illustrated, scholastic writing on the topic of adaptation tends to focus mainly on the dialectic between cinema and literature. Andrew (2000) invoked the creation of a new discipline, “sociology of adaptation” (p. 35) for a better understanding of the process.

His comment is echoed by Naremore (2000), who noted that: “we need more writing about adaptation of ‘low’ or pop-cultural texts, and we need to think about how certain texts are adapted cross-culturally” (p. 12). This thesis aims at discussing the cross-pollination of cinema and video games, and examining the dynamics of transmedial adaptations.

## CHAPTER 3

### METHOD

This study examined the formal and rhetorical patterns of films that use video games in their narratives. It identified and described elements such as themes, motifs, configurations of action, subject matter, and repeatedly used objects that eventually assume an iconic status.

A list of 53 relevant films was compiled with the aid of both offline and online resources. The former comprises such magazines as *Film Comment*, *Sight & Sound*, and *Entertainment Weekly*. The latter includes electronic databases such as *The Internet Movie Data Base*. Once the list was compiled, the analysis was conducted by repeatedly viewing the selected films, which are listed in Appendix 1.

The narratives of these movies a) depict video games; b) are based on video games; or c) incorporate some of the features of video games.

The depiction of video games in the film narratives is either direct or indirect. In the former case, video games represent the main theme of the film: Their presence in the mise-en-scene is pervasive. In the latter, video games are not the main focus of the film: Their depiction is subtler.

A second category of narratives is constituted by filmic adaptations of existing video games. Here films re-enact the dynamics and the visual of the game, with varying degrees of success. A third group of narratives incorporates formal and/or structural conventions specific to the video game medium.

A more detailed explanation of this taxonomy can be found in Chapter Four of this thesis.

The study also critically discussed the formulas and conventions used in the video game-related films. The goal was to determine how they are used in structuring the text and creating meanings, as illustrated by authors such as Cawelti (1971), Wright (1975), and Schatz (1981). Formulas are fixed narratives that “have imposed themselves upon the general consciousness and become the accepted vehicles of a particular set of attitudes and a particular aesthetic effect” (Warshow, 1970, pp. 128-129).

The analysis was conducted with the aid of various conceptual models, specifically, the method of binary oppositions as it is commonly used in structuralism, the model of remediation, and notions derived from literary analysis and semiotics.

The adoption of a structuralist approach to film required that, during and after viewing a version of the film, the researcher took screening notes on actions performed by key characters, and then read over the scenes until the patterns of relationships emerged and the scenes clumped into units. Next, the units that presented common or recurrent elements were arranged in columns. By analyzing the relationships between columns, the researcher was able to uncover the kinds of opposition they revolve around (for instance, reality vs. fantasy). Repeating this process over and over, it was possible to find the binary oppositions of a film through a rigorous method. The use of a structuralist analysis of films allowed the researcher to cut through the surface details and to identify the underlying oppositions.

The structuralist analysis was only applied to 18 films, whose narratives explicitly revolve around video games. The researcher analyzed, compared, and contrasted film elements such as plots, themes, characters, and specific scenes.

The analysis is aimed at answering the following questions: How are video games depicted in movies? Are they presented in a positive or negative light? What kind of meanings are these texts trying to suggest? Are there any myth narratives embedded in these films? What is the relationship between myths, films, and games? What are the major thematic clusters? What fundamental conflicts do the films explore? What are the crucial binary oppositions at work in the films? Ultimately, what image of society depicted in the movies prevails?

The study also looked for the elements of visual style, which manifest character, situation, and action. It discussed recurrent images that have the potential to become the visual conventions or icons, i.e., "pictorial codes which are a graphic shorthand understood by both filmmaker and audience" (Sobchack, 1987, p. 65). The analysis inquired whether these elements have only an evocative power or if they are also essential to define the genre, using Rick Altman's distinction between the semantic and syntax of a genre. It investigated their iconographic significance, the context in which the narrative is played, and the objects displayed that accrue their meaning through their function. For instance, it questioned whether there is a consistent cluster of meanings provoked by the image of a joystick in the movie and whether this treatment of the device within the various narratives is consistent. This method was used to provide answers to the following questions: Beyond the fact that seeing a game console on the screen signals

the viewer that he is watching a film that incorporates video games, is there a consistent meaning generated by that particular image? Does a console device carry an emblematic, iconic significance, comparable to that of the train in the Western movie, for example? What are the recurrent formal elements (such as objects, weapons, and other relevant devices, and costumes)? What is their meaning in the context of the movie? What is the function of the sequence in which video games are displayed within the larger narrative action? Does the sequence encapsulate the major oppositions at work in the film? What aspect of the story does it establish, revise, and develop? How do the visuals express it?

Literary analysis and semiotics were used to describe and to understand the process of creating a film based on a video game. Here, the analysis centered on the complex interplay between the source text, that is, the video game, and its filmic counterpart to answer the following questions: Does the film comment on itself as a fictional product? How does the film quote other texts? What are the relevant criteria in translating a game into a film? How does a producer or designer translate one visual medium to another visual medium? How is narrative impacted by interactivity? What role does the spectator play? What is the relationship between generic and cultural verisimilitude? How does the interactivity of video games alter the position and experience of the spectator/player? Are films based on video games commercially successful? If not, why?

The remediation model has been used to describe to what extent and for what purpose films are remediating video games. It emerged that the remediation of video games is a multifaceted process that affects not only the aesthetics of films, as suggested

by Bolter and Grusin (1999), but also their narratives. In fact, films use computer graphics to increase their impact and immediacy, but they also borrow and adapt video game conventions such as repeatability and multi-directional narratives. The researcher developed a more specific syntax of the remediation model and applied it to specific films.



## CHAPTER 4

### RESULTS

#### From Post Futurist Science Fiction to Technoludic Cinema

This thesis argues that the *technoludic* film could be interpreted as a progression of what Sobchack (1987) defined the “post futurist science fiction movie,” (p. 220) that is, the last step in the evolution of the science fiction cinema. Like most, if not all science fiction movies, the *technoludic* film subsumes and grapples with the fascination and fears brought on by rapid technological changes. And like the “post futurist science fiction movie,” it exemplifies many of the postmodernist preoccupations. But it differs from its predecessor in its concerns for specific technology, i.e., video games.

*Technoludic* is used as an umbrella term for a variety of films that incorporate video games into their narratives. This neologism combines two different words: technology and *ludus*, a Latin word for play. *Technoludism* refers to the technology of play (Bittanti, 1999).

The *technoludic* movie is cinema’s interface to video games, as the two are becoming more and more interconnected. As Bell and Kennedy (2000) suggested, “from the virtual reality experiences of *The Lawnmower Man* to the technobody horror of *Videodrome*, from *Hackers* playing war games, to the biotechno matrix of the Borg in *Star Trek: The First Contact*, the images pouring out from our (filmic) screen are fed back through our (computer) screens in a loop which ultimately blends ‘fact’ and ‘fiction’, ‘reality’ and ‘fantasy’ to create our sense of cyberculture” (p. 3).

The emergence of electronic entertainment has been accompanied with a multi-layered film commentary that consists of more than 50 movies from 1973 to 2001 (see complete list in Appendix 1). Surprisingly, most of these movies have received just a cursory critical attention. Very few are blockbusters. However, or maybe just because of their marginal status, they are representative of important contemporary debate about the social importance of crucial concerns such as technology, alienation, and identity. And some of these films, *Tron*, for example, have acquired an underground cult status. This thesis argues that, although the *technoludic* film as a film genre is still in an embryonic stage, its main features (themes, conventions, and iconography) are already recognizable.

The modes, meanings, and implications of the video games' incorporation into film vary significantly. As summarized in Table 1, the analysis of selected films resulted in the identification of four major modes of inclusion: *commentary*, *quotation*, *adaptation*, and *remediation*.

**Commentary.** Although films are products of particular industrial and commercial frameworks, they also function as cultural barometers. The *technoludic* movie is, first and foremost, a text that reflects society's attitudes towards video games. It presents, in a fictionalized, narrative manner, the merits and demerits of video games, and implicitly or explicitly evaluates or devaluates their significance. The cinematic commentary on video games ranges from a bland criticism to explicit attacks and condemnations. There are a few positive depictions as well, although their number is significantly smaller. To use Genette's terminology, the *technoludic* commentary functions as a metatext, that is, it expresses a "critical relationship between one text and

another, whether the commented text is explicitly cited or silently evoked” (Stam, Burgoyne, & Flitterman-Lewis, 1992, p. 208).

This category comprises films that explicitly use the electronic gaming metaphor as the main focus of their narrative. These texts are part of a critical discourse on technoculture in general, but video games in particular. To use Genette’s terminology, the *technoludic* film as a commentary is a metatext that provides a critical commentary on video game culture and technology. Cronenberg’s *eXistenZ* (1999), for instance, represents an emblematic example of how a cinema can engage a complex dialogue with video games. A chronological list includes: *Tron* (1982), *Joysticks* (1983), *Nightmares* (1983), *Cloak and Dagger* (1984), *The Last Starfighter* (1984), *Hollywood Zap* (1987), *Toys* (1993), *Brainscan* (1994), *Virtual Combat* (1994), *Arcade* (1994), *Evolver* (1995), *The Wizard* (1989), *The Lawnmower Man* (1991), *Carver’s Gate* (1994), *Nirvana* (1997), *Tokyo Eyes* (1999), *eXistenZ* (1999), and *Avalon* (2001).

**Quotation.** The verb “to quote” derives from Medieval Latin *quotare*, that is, “to mark the number of, number references.” In its transitive sense, to quote denotes the act of speaking or writing “a passage from another usually with credit acknowledgment” and “to repeat a passage from especially in substantiation or illustration” (Merriam-Webster Dictionary, 1997). It also means: “to cite in illustration.”

This mode of inclusion is comparable to Genette’s intertextual relation, which he defined as the effective co-presence of two texts in the form of quotation, plagiarism, and allusion. Stam, Burgoyne, and Flitterman-Lewis (1992) defined intertextuality as: “a

verbal or visual evocation of another film, hopefully as an expressive means of commenting on the fictional world of the alluding film” (p. 206).

This category includes films that display video games in one or more scenes for allusive or illustrative purposes. Among the cited texts are: *Soylent Green* (1973), *Beneath the Valley of Ultravixens* (1979), *Blade Runner* (1982), *Android* (1982), *Brother from Another Planet* (1984), *Superman 3* (1983), *D.A.R.Y.L.* (1985), *Clockers* (1997), *Titus* (2000), *The Beach* (2000), and *Center of the World* (2001).

**Adaptation.** Originally from the Latin verb *adaptare*, “to adapt,” means “to make fit (as for a specific or new use or situation) often by modification” (Merriam-Webster Dictionary, 1997). This process “implies a *modification* according to changing circumstances” but also a “reconciliation” that demonstrates “the underlying compatibility of things that seem to be incompatible.”

This mode of incorporation is analogous to Genette’s (1997) notion of hypertextuality, i.e., the relation between a text and an anterior hypotext, a text or genre on which it is based and, simultaneously, transforms, modifies, elaborates or subverts. Here, the filmic adaptation of a video game is interpreted as a “hypotext’s being transformed by a complex series of operations: selection, amplification, concretization, actualization, critique, extrapolation, analogization, popularization, and reculturalization” (Stam, 2000, p. 68).

As novels, comic books, and plays, video games have been translated into movies for quite some time. The practice became commonplace in the 1990s. The first adaptation, *Super Mario Bros* (1993), was followed by *Double Dragon* (1993), *Street*

*Fighter: The Movie* (1993), *Mortal Kombat* (1994), *Mortal Kombat II: Annihilation* (1995), *Wing Commander* (1999), *Lara Croft: Tomb Raider* (2001), and *Final Fantasy: The Spirits Within* (2001). Currently, 11 new game-based film projects are in different stages of production. The increasing popularity of video games adaptations makes this examination particularly timely.

**Remediation.** As noted in the Conceptual Overview section in Chapter 2, the notion of remediation (Bolter & Grusin, 1999) accounts for the means of repurposing narrative techniques and modes of representation from historical forms of media and also co-evolving with the existing ones. By experimenting with familiar conventions from other media such as the video game, film has produced new formulas of narrative discourse and modes of representation. Thus, this third category includes movies that embody into their narratives and/or style some of the conventions of video game language. This happens with films like *Groundhog Day* (1993), *Run Lola Run* (1998), *Being John Malkovich* (1999), *Dark City* (1998), *The Matrix* (1999), *Toy Story* (1995), and *Toy Story 2* (2000).

The dialectic is a dynamic process in which one proposition, the film, is matched against another, the video game, to bring a third, combinatory proposition into being. In this relationship, the function and importance of the two propositions—film and video games—vary significantly.

In both the *technoludic* film as a commentary and as quotation, the source text, that is, the video game, is subordinated to the film. In fact, film operates as a discourse on video games and makes full use of its language to critique the other medium.

In the *technoludic* film as remediation and as adaptation, on the contrary, the film-text is subordinated to the video game text. In the former, film borrows video games visual style and narrative strategy. In the latter, it works as a spin-off of an already established franchise. In both cases, the film's language and content depend on the secondary text, e.g., the video game.

**Table 1**

*The technoludic film: A taxonomy*

<b>Mode of Inclusion</b>	<b>Commentary</b>	<b>Quotation</b>	<b>Adaptation</b>	<b>Remediation</b>
<b>Definition</b>	Film that comments on video games and reflect society's concerns about them.	Film that displays video games in one or more scenes for allusive or illustrative purposes.	Film translation of an existing video game.	Film that embodies into its narrative some of the features of video games.
<b>Examples</b>	<i>Tron, Joysticks, Nightmares, Cloak and Dagger, The Last Starfighter.</i>	<i>Soylent Green, Brother from Another Planet, D.A.R.Y.L., Clockers, Titus, Center of the World.</i>	<i>Super Mario Bros, Double Dragon, Street Fighter: The Movie, Mortal Kombat.</i>	<i>Groundhog Day, Being John Malkovich, Dark City, The Matrix.</i>

*Technoludic Film as Commentary*

When they first appeared in the 1970s, video games were perceived by society at large as a technological novelty. Unsurprisingly, in early cinematic depictions, they were

used metonymically as objects that embodied the concept of high-tech, or even the idea of the future tout court. In semiotics, metonym is a figure of speech involving using one signified to stand for another signified that is directly related to it or closely associated with it in some way, notably the substitution of effect for cause. Metonyms abound in cinema as well. In the Western genre, for instance, the image of a train is used metonymically to represent myths such as the frontier, conquest, freedom, and colonization of nature. Similarly, because of their innovative, futuristic designs, video games formed a consistent cluster of meanings and were initially used in films as signifieds associated with the idea of advanced technology. This happens, for instance, in *Soylent Green*, which is discussed later in this chapter.

As the new electronic medium made its way into the mainstream in the early 1980s, it became a narrative trope rather than a mere component of the *mise-en-scène*. This novel depiction of video games was part of a broader cultural redefinition of technology as reflected within and by the science fiction genre.

The *technoludic* film addresses and reflects contemporary concerns toward technology, specifically video games. It usually disguises, and thereby reveals more schematically, the social, cultural, and psychological preoccupations associated with electronic entertainment. By adopting a structuralist analysis of 18 films in which video games play a central role in their narrative, a series of major binary oppositions has emerged: visible and latent; here and there; space and cyberspace; lived experience and fantasy; identity and role-playing; truth and illusion; dream and reality; original and copy-double; virtual and real; essence and appearance; representation and simulation;

depth and surface; and reproduction and replication. Some of these dichotomies are discussed in the following pages.

*Technophilia vs. technophobia.* Video games are one of the most advanced computer applications. They represent the quintessential form of technoludism, or technologies of play.

The representations of video games in films closely replicate Ryan & Kellner's (1990) dichotomy between technophilia and technophobia that was discussed in Chapter Two. Moreover, they reflect Baudrillard's and Levy's contrasting views toward technology and virtuality. The technophobic approach is clearly Baudrillardian. Here, virtual is a deception and ludus becomes luddism. The technophilic view, on the contrary, reflects Levy's definition of the virtual as a synonym of virtuous.

The rhetorical strategies of the selected films reveal a clearly defined opposition between concepts like liberty vs. equality that does not allow any form of intermediation.

The vast majority of *technoludic* films analyzed present high levels of technophobia. They tend to depict video games as alienating, dehumanizing, harmful, and potentially catastrophic machinery. As Poole (2000) observed, "when video games themselves are featured in films, they are so often shorthand for moral or cognitive vacancy, or actual destructive tendencies" (p. 75). Cinematic depictions reinforce the idea that exposure to the video game leads to perdition.

Technophobic sentiments are already visible in *Tron* (1982), the first film "to actively engage in an aesthetic dialogue with video games" (Poole, p. 71). A rather elaborate science fiction epic, the film reflects society's contrasting attitudes toward the



new medium. *Tron* features a talented programmer, Kevin Flynn (Jeff Bridges), who is forcibly digitized and swallowed up by a computer inside the digital world. Here he must combat against the tyrannical sentient CPU called Master Control Program, which became “2,415 times smarter” than when it was first programmed,” and runs between “100-200 times better than any human.”

Unsurprisingly, the super-computer is planning to take over the whole world. Its ultimate goal is replacing humans with computer-generated characters.

The theme of the sentient, implacable machine returns in *Wargames* (1983). The main hero, David Lightman (Matthew Broderick), is a high school teenager who hacks into the computer system of a software firm called Protonvision and begins a 48-hour simulation—Global Thermonuclear War—that, when completed, would result in real American missiles nuking real Russian targets. The film’s message is that playing video games can lead to potentially apocalyptic consequences.

But the apogee of *technoludic* technophobia is *Brainscan* (1994). The film explicitly associates video games to alienation, aggression, and even murder. Here, a lonely teenager, Michael (Edward Furlong) discovers a computer game that promises the most terrifying experience imaginable. Thrilled by the images and goaded into vicarious action by a disembodied monstrous taskmaster called Trickster, Michael plays the role of a serial killer in a game called *Brainscan*. The goal of the photo-realistic game is to murder innocent people within a limited time frame and without leaving any clues behind. Waking up from this trancelike pastime, Michael is shaken but exhilarated. But

when a television news program shows gruesome reports of the murders, he realizes that he has actually committed the killings.

The video game turns out to be just a hypnotizing device that transforms users into murderers: “Hypnosis depends on the same principle of isolating one sense in order to anaesthetize the others. The result is a break in the ratio among the senses, a kind of loss of identity” (McLuhan, 1964, p. 66). Baudrillard (1988) also described a fascination for simulation as a mutation in pleasure from *seductio* to *subductio*, from the seduction by the other to hypnosis of the self, endlessly repeated on the screen (p. 25).

At the end of the movie, when Michael discovers that the terrifying experiences were just a dream, he trashes his computer, destroys the games and joins a party at a neighbor’s house. Images of characters physically destroying evil video game machines are surprisingly recurrent in technoludic cinema.

Video games are frequently conflated with the larger existent or projected cultural processes as cyberspace, which also includes virtual reality (see Heim, 1992; and Wolf, 1999). Because of the technological and philosophical proximity between video games and virtual reality, a selected number of these movies that display virtual reality as a ludic device have been taken into consideration in this study. Unsurprisingly, even films that address the broader issue of virtual reality tend to depict video games as potentially dangerous.

In particular, *The Lawnmower Man* (1991) and its sequel “extrapolate some hypothetical video game feature in order to make more or less successful point about man’s increasingly intimate relationship with technology” (Poole, 2000, p. 74). As

Murray observed (1997), *The Lawnmower Man* depicts computer-entertainment as lurid: its message is that “the video game will play us from now on. *The Lawnmower Man* is the most extreme version of the dystopic vision: the representational technology as both diversion and dictator in one” (pp. 23-24). The film’s premise (or menace, depending on the point of view) is that “by the end of the millennium, a technology known as virtual reality will be in widespread use.”

The film opens with a chimp escaping from a secret facility where Dr. Angelo (Pierce Brosnam) is conducting a series of experiments to augment the intelligence of primates and men through the aid of virtual reality. This technology seems to make the guinea pigs smarter; but it also increases their level of aggression. “though it’s not clear whether this is from the drugs or too many video games” (Harrington, 1992). Several scenes of the movie are purposely set inside a violent virtual reality game, a first-person shooter look-alike.

Like *Brainscan*, *The Lawnmower Man* also exhibits blatant contempt for video games. As soon as the protagonist’s intellectual skills improve, he stops playing virtual reality games and dismisses comics as an infantile pastime (“*I’m not into that anymore*” he tells his friend Peter, “*As a matter of fact I am going to give you my entire collection*”).

Equally technophobic are films like *Virtual Combat* (1994), *The Lawnmower Man*’s low-budget clone, *Carver’s Gate* (1994), and *Nirvana* (1997). These films portray video games as harmful, dangerous devices. The scenarios are similar: game characters materialize into the real world and kill real people. Dangerous playing also occurs in *Evolver* (1995), where a popular virtual-reality video game gets ported to life, and Kyle, a

skillful teenager, competes against a little robot version of the arcade game. However, *Evolver* is programmed to win at all costs and learn from its and the player's mistakes. Thus, the match between Kyle and *Evolver* gradually becomes a frantic struggle for survival. In *Carver's Gate* (1994), video games are an addiction of a hopeless society, a lethal addiction.

In almost all the examples, video games are presented as demonic devices that entangle the users in a world of pixels, a world where common ethics and morals do not apply. The virtual environments are traps that offer little hope of escape. The plot revolves around a protagonist's need to kill and murder to survive and safely return to his home (*Tron*, *eXistenZ*, *Evolver*, *Brainscan*, *Nirvana*, and *Avalon*).

*Tokyo Eyes* (1999) also centers on the dichotomy between the virtual and the real as it reinforces the idea that technology is not the redeemer of human kind. Quite the opposite, it represents an epistemological impediment. *Tokyo Eyes* is a meditation of the role and functions of images, the fallacies of vision in the process of understanding reality.

Moreover, a significant number of movies represent video games as a time-wasting obsession. Films condemn the fact that play is not productive; it does not perform any work and thus it is useless, willfully inefficient, pursued solely for the pleasures it provides. It might be argued that the *technoludic* movie is just rehearsing a time-honored preoccupation: the dread of procrastination, the blasphemy of unproductivity, which is the antithesis of the Protestant ethic. Images of students failing in school because of their addiction abound.

*Wargames* (1983) opens in *media res*. In the first scene of the movie, David (Matthew Broderick) is playing *Galaga* at the 20 Grand Palace arcade. The camera lingers on the reflection of his face on the video game monitor. In the background, the soundtrack plays "You're living in the shade of a 50-year old arcade." When he realizes that he is late for class, he leaves the game to a friend and runs to school, only to be sent to the principal a few moments later.

A similar case in point is *Nightmares* (1982). Here the main character J. J. Cooney (Emilio Estevez) spends all his waking hours playing a game called the *Bishop of Battle* in the mall's arcade. As his grades start to slip, his parents blame the new electronic, a-socializing gizmos as the source of the problem. J. J.'s fixation leads to his alienation from his friends and parents. His father bans him from the local mall's arcade, but J. J. breaks in late at night for "just one more game." Tragedy follows.

Another film that overtly condemns video games as a corrupting influence is Greydon Clark's comedy *Joysticks* (1983). The plot revolves around the efforts of a suburban town's top businessman, Joseph Rutter (Don Baker), to shut down the video arcade where his Valley Girl daughter hangs out. Rutter, who represents society at large, is convinced the arcade constitutes a threat to the morals of all youngsters. He wants it closed, and will do whatever is necessary. The arcade, a wildly popular hangout for the local teen population, is run by a stereotypical stud called Jefferson (Scott McGinniss) who refuses to play video games because of an unmentioned trauma from his past.

Rutter enlists the services of King Vidiot, a blue-haired punk rocker who has been banned from the arcade for his outrageous behavior. Rutter goads Jefferson into squaring

off with King Vidiot in a championship game of *Satan's Hollow*. If Jefferson wins, Rutter and his goons will back off. However, if he loses, he has to shut down the arcade for good. Thus, it's up to Jefferson to overcome his video-phobia to save the day with the help of his friends.

Another comedy that focuses on video games is *Hollywood Zap*, a little-known feature by Troma film that was shot in arcades around Los Angeles in 1983. It reached very few screens before it made its way to videotape and is now nearly impossible to find. Produced by the late Ben Frank, who also starred in the lead role, the story depicts the adventures of a Wall Street stockbroker who leaves New York to find Zap, the world's greatest video game player, who is a champion of *Zaxxon*. Two young men hit the road to Hollywood, to look for money, the hero's long lost father, and the wild life in this youthful comedy. Ben Frank plays the part of a wasted video addict/hustler. *Hollywood Zap* depicts video games as a sleazy, corrupting pastime, explicitly associated with sex. Prostitutes and hustlers populate the arcades.

Many films represent video games as the only alternative to an almost unbearable reality. *Carver's Gate* (1994) and *Avalon* (2001) present similar premises. Both movies, science fiction dystopias, describe a world that has become a bleak, desolate, and almost uninhabitable place. Thus, the vast majority of people spend their lives playing virtual reality games instead of cooperating to find a remedy.

Technophilic films, on the contrary, tend to emphasize the socializing force of technoludism. Here, video games are presented in a positive light, as enriching toys that can empower and even free children's imagination. In this context, video games are

depicted as an aesthetically appealing form of entertainment, a technology that promises safe adventures, ecstatic releases from everyday pressure, and escapism from routine.

A case in point is *The Last Starfighter* (1984). Its story involves an arcade game used as a test for prospective starship pilots, planted by embattled aliens under siege from an evil invader. When Alex Rogan, a teenager from a trailer park, set a new record at his favorite video game, he ends up being recruited to fight for the survival of another world (incidentally, a similar idea is explored by SJSU professor and novelist Rudy Rucker in a short-story titled "Pac Man"). Rogan's extraordinary skills as a video game player allow him to save the galaxy, to win his girlfriend's love, and to move out of the trailer park and become a hero. Here, video game playing itself is presented as a very positive activity. The trailer park community shows its support for Alex when he is playing the game. The residents gather around the machine and cheer any time he gains more points. Here, video games are presented as a socializing technology rather than an isolating device. However, in *The Last Starfighter*, video games represent a mere narrative pretest rather than the main focus of the story.

Sociological issues are also explored in *The Wizard* (1989), which concerns the adventures of three runaways who are pushing their way arcade-to-arcade from Utah to Los Angeles. Their goal is to have their best player compete for the grand prize in the video game finals. The main character suffers from emotional detachment caused by a traumatic event he experienced as a kid, a recurrent motif of the *technoludic* film. He withdraws from his depression and wins a video game tournament.

One of the subplots features Christian Slater's character evangelizing his father about the joys of titles such as *Teenage Mutant Ninja Turtles* and *Ninja Gaiden*. Game maker Nintendo was heavily involved in the production of the movie—it provided the graphics with several of their games on display—and unsurprisingly, the film suggests that troubled families will be united by video game technology, specifically Nintendo Entertainment System and its full line of accessories.

*Cloak and Dagger* (1984) is a spy thriller that centers on an Atari 5200 video game of the same name. The movie focuses on the misadventures of a young boy named Davey (Henry Thomas) struggling to deal with the recent death of his mother. Davey spends most of his time in a fantasy world of espionage where he apprentices under the guidance of an imaginary secret agent named Jack who is searching for a game cartridge that contains classified information.

During the course of the story, he will win the love and support of his father. The message of the movie is that video games can make the world a better place. In the decade that glorified the practice of product placement in films, it comes as no surprise that *Cloak and Dagger* contains a plethora of subliminal plugs for Atari.

In summary, the *technoludic* film either demonizes or sanctifies video games. In both cases, the rhetorical discourses tend to reify the idea and function of technology in society. In the technophobic film, technoludism is depicted as intrinsically evil. Video games are presented as a fertile framework/condition for human self-destruction, implosion, and disintegration. Technoludism represents, therefore, a threat not only to



individual freedom, but also “as a criterion of the ontological ground” (Ryan & Kellner, 1990, p. 61).

Technophobic *technoludic* dramas deliberately overvalue the effects, consequences, and possibilities of video game playing. Thus, these films implicitly ask: “Is it so clear that technology cannot serve anything else than the last man as the prepubescent boy who would like nothing else but to play video games forever?” (Kroker & Weinstein, 1994, p. 123). The technophobic film advocates rejection of technology as the indispensable condition for the re-emergence of humanity.

Instead, the technophilic film presents video games in a more positive light, as a socializing, rewarding and entertaining activity. It must be noted that the number of positive depictions of video games is significantly smaller in comparison to the negative ones. Also, in some of these films, game companies were involved at different levels in the production.

***Reality vs. simulation.*** The binary opposition between reality and simulation is pervasive to the point it should be considered an essential feature of the genre. In fact, the *technoludic* film reflects contemporary culture’s fatal attraction for simulation. *Technoludic* films inevitably depict a society of spectacle where life dissolves into media (and vice versa) and a new form of subjectivity is produced. The *technoludic* film puts forward the idea that, by becoming too involved with video games, the player will forget about the real world. Although the technology is new, the idea of “losing oneself into a fictional universe” is not. Consider, for instance, this often quoted passage from Cervantes’ *Don Quixote* (1957):

He so immersed himself in those romances that he spent whole days and nights over his books, and thus with little sleeping and much reading, his brain dried up to such a degree that he lost the use of his reason. (p. 44)

However, since video games are usually dismissed as a trivial form of entertainment, their excessive consumption is harshly condemned and treated as pathology. Interestingly, Baudrillard compared simulation to a syndrome: “Baudrillard uses psychosomatic disease as his ground example of simulation” (Burnett, 1995, p. 327).

According to Baudrillard, all simulations lead to deception. Essentially, they *are* deception. thus, simulation *per se* threatens difference in all binary oppositions, inside and outside, and self of other. Ryan (2000), however, disagreed:

Computer simulation differs from [Baudrillard’s] conception on several essential points: they are processes and not objects, they possess a function, and this function has nothing to do with deception: They are not supposed to represent what is but to explore what it could be. And they are usually produced for the same reasons of their heuristic value with respect to what they simulate. To simulate, in this case, is to test a model of the world. (p. 63)

Yet, these films indeed present computer simulations as deceptive, dangerous, and even lethal for the player and for humanity at large. In fact, the vast majority of these films can be interpreted as cautionary tales about the seductive and alluring power of a technology that is able to turn reality into a game and fashion other versions of the self. The major binary opposition reality vs. simulation can be broken down in other dichotomies such as real world vs. the virtual world, player vs. avatar, the recurrent contrasts between game players and society at large, and the antagonism between the player and the corporation that makes the games. The films that feature these oppositions are listed in Table 2.

## **Table 2**

*Major binary oppositions at work in the technoludic film as commentary*

Binary oppositions	The dichotomy between the real world and the game world	The antagonism between the player and the avatar	Battles Against Corporations	Recurrent contrasts between game players and society at large
<b>Films</b>	<i>Tron, Nightmares, Wargames, Brainscan, Ghost in the Machine, Virtual Combat, Arcade, Carver's Gate, Evolver, Nirvana, eXistenZ, Avalon,</i>	<i>Tron, The Last Starfighter, Lawnmower Man, Nirvana, eXistenZ.</i>	<i>Tron, Nirvana, Wargames, Toys, Virtual Combat, eXistenZ.</i>	<i>Tron, Joysticks, Nightmares, Wargames, Brainscan, the Wizard, Tokyo Eyes, Hollywood Zap</i>

*The dichotomy between the real world and the game world.* According to Huizinga (1950), the playing activity is always performed on a specific playspace—a board, a screen, a playground—which is marked off so that in some sense it becomes a separate, specific, dedicated, and almost sacred space. Huizinga calls this alternative space “the magic circle” (p. 13). Quite paradoxically, although play occurs spontaneously, it relies on pre-arranged rules that are well known to the participants. Players *choose* to play, agreeing to the cosmology of the game, i.e., arbitrary rules controlling the game world; goals and penalties are agreed in advance. Thus, the gameworld provides an enclave of order in a wider, chaotic, uncontrollable reality; despite the sometimes complex and vast sets of rules that accompany the games, games

themselves are less complex and more clearly defined than the ordinary routines that people undertake daily. In this regard, Jenkins (1998, p. 152) stated that “video games constitute virtual playing which allows home-bound children . . . to explore, manipulate, and interact with a more diverse range of places that constitute the often drab, predictable, and overly-familiar spaces of their everyday life.”

The sacredness of the game-space offers something much more valuable than mere order. The construction of order through arbitrary rules temporarily dissolves the significance of the outside world. The very same idea can be applied to video games. After distinguishing between the symbolic content of video games and the experience of video game playing, Fleming (1996) asserted that playing a game like Nintendo's classic platform adventure *Super Mario Brothers* (1983) is an intriguing experience that involves “the replacement of the gameworld’s thematics by its geometry, which is where the fully engaged action really is” (p. 191). Fleming’s conclusion is that “at their best computer games simply operate elsewhere for much of the time” (p. 193). Thus, the gameworld is a privileged space. Having freely chosen to play and consented to pre-determined constraints, players slip the controlling lead of the superego in pursuit of mastery. Difficult impulses are exorcised—cathartically, even—in the safety of the game space, the temporary “otherwhere” of experience where nothing really matters; no lives are actually sacrificed; no deaths are permanent; no loss is irreversible. Games are interactive, simultaneously controlled and risky.

Winnicott (1971), however, described the play space as potential, transitional, transitive, and liminal space. This play space becomes a playground where the subject

can learn to distinguish between reality and fiction, a context for subjective experience and re-ontologisation. In fact, according to Winnicott (1971), play is a creative activity, rather than a mere pastime. For instance, he argued that children play with a certain toy or play out a certain imaginative experience until it has absorbed all the emotional ambivalence they feel about the subject and then they are ready to transfer their feelings to the world at large (the whole cultural field).

This activity can only be performed in an area that lies between the internal fantasy world of the individual and the external world, or between the subjective object and the perceived object. This "third space" (p. 169) is an area in which the infant can be challenged and experiment, but must also be a place of rest "for the human individual engaged in the perpetual human task of keeping inner and outer reality separate yet interrelated" (Winnicott, 1971, p. 2). Video games are a form of potential space as they represent shared areas of experience that provide opportunities for creative play.

Interestingly, Sony Computer Entertainment used the slogan "Welcome to the third place" to promote its PlayStation2. After all, Winnicott (1971) drew attention to the continuity between the potential space that supports infantile illusions of magical creative power, and that which is associated with mature aesthetic creations. In virtual environments such as video games, the line between infantile and imaginative illusions becomes particularly apparent and it seems appropriate to think of them in terms of the technological institutions of potential or intermediate space.

According to Winnicott, the third place is a dimension where paradoxes, contradictions, and aporias constantly emerge. Often these paradoxes are not resolved. Rather, they are further complicated. Nonetheless, they tend to have a positive value.

Thus, the dichotomy between subject and object, internal and external does not end in a synthesis, but is left open. However, according to Winnicott, the third place has a dark side. When the potential space is polluted, that is, dominated too strongly by one side, there is no creativity, no play, no space for subjective ontological experience, and compliance comes to characterize the subject's limited experience of the world.

The potential space is therefore not only a source of creativity for the possible realization of subjective ontology, but, because of the difficulty inherent in the acceptance of paradox, it is also the source of a terrifying anxiety. Often, when this fear is too great to enable the positive experience of paradox, subjects are unable to act creatively and simply comply with the object, or discourse, that dominates and threatens to overwhelm them.

To help the subject overcome the anxiety experienced at the result of the liminal status and paradox of the potential space are transitional objects, a term Winnicott (1971) uses to describe any number of objects first used by the infant to decrease the anxiety of its "transition from a state of being merged with the mother to a state of being in relation to the mother as something outside and separate," (1971, p. 14) but which also persist and continue to be discovered in adult life, aiding the subject in the ongoing negotiations that exist in potential and cultural space. The successful use of the transitional object is

necessary to achieve a balance in the development between internal fantasy and external reality.

The transitional object is regarded by the subject as neither internal (that is, a mental concept) nor external (in that the object is not perceived to be a foreign entity, but a possession belonging to the subject). It is essential for the subjective experience of transitional objects to be effective (that is, in containing the anxieties of insecurity) that the ontological status of the transitional object as either internal or external is never challenged.

The game world depicted in the *technoludic* film resembles Winnicott's third place more than Huizinga's sacred playspace. Here, however, the paradoxes found in the game world of the film rarely have a positive value. Avatars pollute the real world and humans lose themselves in the intricacies of the game world. The films' narratives center on a contest for supremacy and domination. Play in the *technoludic* film is not creative or constructive, but, rather, a source of ontological confusion. In films like *eXistenZ*, *Brainscan*, and *Nirvana*, the gameworld and the real world constantly collide and overlap, leaving both the characters and the audience appalled. The narrative conflicts of *technoludic* films are usually generated a) within the game world; b) within the real world, which is somehow affected by the controversial nature of video games, or c) within both, as the two spaces are constantly intersecting.

The two scenarios that characterize the *technoludic* film—the real world and the game world—are usually presented as separated at the beginning of the story, but at one point inevitably overlap. When this happens, reality and simulation converge and

conflate. The game takes over. Dialogues present recurrent existential questions such as: “Is this a game or is it real?” (David in *Wargames*) or “Are we still in the game?” (a character in *eXistenZ*, which echoes Max Renn’s “Is it real or Memorex?” of another Cronenberg’s classic, *Videodrome*). The answers are either a sardonic silence or an ambiguous “What is the difference?” (Joshua in *Wargames*).

Conversely, the characters who play video games inevitably end up in the video game world themselves, their bodies physically transferred into the game arena. This dialectic represents a constant of the *technoludic* film: Although the player aims at conquering the virtual space of the video game, the computer aims at “breaking the frame” of the video game screen and conquering the world.

Often, the virtual space of the game appears to be located outside reality (*Tron*, *The Lawnmower Man*), yet in most cases is aesthetically indistinguishable from reality as it is commonly perceived (*Brainscan*, *eXistenZ*, *Nirvana*, and *Avalon*). The video game world is frequently presented *and* perceived as an ontological dimension per se, not as mere fabricated imagery. However, the filmic depiction of the digital world is not equally realistic.

The computer world’s iconography consists of recurrent themes and images, such as computer-generated scenarios, the data suits worn by the characters, and vector-like spaces and elements. The dynamics of physical or symbolic immersions into the video game world vary. In *Tron*, for instance, the player is digitized by a laser that scans three-dimensional objects and then reconstructs them (a similar artifice can be found in the TV series *Star Trek* or in Cronenberg’s remakes of *The Fly*). As the Master Control Program



puts it, referring to the entrapped player who dared to fight him, “He’s the one who pushed me into the real world. I fight back by bringing him in.” In *Carver’s Gate*, the passage from the virtual to the real dimension is made possible by a special device, a transducer, which allows people to enter the game world without using any other equipment. But the device, invented by a talented programmer, creates a rift that causes the electronic creatures from the game to enter the real world.

In *eXistenZ*, the penetration into the game world is obtained through an organic interface called game pod that connects directly with the body of the player. At one point, Ted Pikul (Jude Law), exclaims: “I don’t like this game! You don’t know what the rules are, you don’t know what the goal is, and you don’t know who is controlling it. I don’t think this game’s going to be very popular.”

“But that’s the game that people are playing already,” replies Allegra Geller (Jennifer Jason Leigh), the game’s designer.

Finally, they discover that they have both been playing a game within a game, a meta-game called *tranScenZ*. *eXistenZ* can be read as a meditation upon existence and transcendence. The presence of an alternative ending, the refusal of resolving all the strands of the plot action, and the twist at the end mimic the openness and the non-closure of most video games.

*Nightmares’* protagonist, J. J. Cooney is literally eaten by the video game main villain, the Bishop of Battle, represented—just like *Tron’s* Master Control Program—as an enormous hovering vector head. He ends up being trapped inside the video game itself, running and shooting into infinity. *Nightmares* toys with the fear of encapsulation,

the terror of being confined within a diabolical mechanism, a theme also explored by another ludic film, Vincenzo Natali's *Cube* (1998). Ditto for *Avalon*, a film permeated with metaphysical preoccupations, a fear of being ensnared in an hallucinatory world of perpetual simulation where the real is lost forever.

*Ghost in the Machine* (1993), revolves around a psychotic serial killer who works as technician in a computer shop, Karl Hoffman (Ted Marcoux), whose persona is transferred into a computer during the time his brain is being scanned in the hospital. He then travels on power lines possessing every possible kind of technologic devices, from microwave ovens to personal computers and video games. A scene depicts a teenager, Josh, playing a virtual reality game. The killer materializes in the virtual world as a video game character and starts to mess with him.

*Arcade* (1994) also features human beings being trapped in the virtual world of video games. The evil machine is able to absorb the players, read their memories, dilate the time, disrupt phone lines, and blow ominous winds out of the TV screens.

In all cases, the video game world aspires to become the only possible ontological dimension. The digital world tends to become a total space, a complete world. By doing so, it makes the real evaporate into the hyper-real. Technology no longer encompasses the world; it aims at replacing it with a "more real than real" simulation.

However, as the human characters enter the computer world, they often become empowered. Their capabilities are magically augmented. In *Tron*, for instance, the user, Flynn, is idolized by the virtual characters (or programs, as they are called in the film) as a messiah, the only one who can free them from the Master Control Program, an

autocratic ruler in the digital world. Just like *The Matrix*' hero, Neo (Keanu Reeves), Flynn is a *deus ex machina*, and performs electronic miracles, such as creating spaceships from discarded bits of data and healing wounded programs just by touching them. In the game world, humans may overcome normal limits and transgress usual boundaries; thus the *technoludic* film appears to promote and gratify magical fantasies of technological omnipotence and creative mastery. Similarly, in *Lawnmower Man*, power emanates centrifugally from the computer, "prompting the title character to 'go into' the virtual world and assume command" (Wolf, 2000, p. 231).

These filmic immersions in the video game world mimic the dynamics of game playing, which requires a complete identification with the fictional universe in order to master it. Thus, the absorption of the film character inside the virtual world can be interpreted as a liberalization of this process. As Burnett (1995) brilliantly observed:

The ability to respond to challenge and even master a video game requires repetition, hours of work with the characters until they bend to the will of the player or until the codes that govern the game are completely uncovered. . . . I would stress that although the notion of cyberspace is derived from the fiction of William Gibson, its metaphoric power lies in its suggestion that images can only be controlled if we are ready to accept our own integration into them. In other words, we have to be part of what we see and, to do that, much more is required than acceptance. The energy needed to learn a video game is exciting and requires a mental concentration that shifts the burden almost entirely onto the player. (p. 206)

And, as Sobchack (2000) noted:

Technology is never merely 'used,' never merely instrumental. It is always also 'incorporated' and 'lived' by the human beings who engage it within a structure of meanings and metaphors in which subject-object relations are cooperative, co-constitutive, dynamic, and reversible. (p. 138)

Conversely, as the real player integrates himself or herself into the game world, the game characters materialize in the real world. In *Virtual Combat* a bright scientist, Dr. Cameron, invents a new technology that allows the materialization of computer-generated characters. He brings flesh versions of two sumptuous females from the virtual sex program to life, turning them into A-lifers, artificial life forms. But he also mistakenly materializes Dante, the ruthless villain from a virtual combat game. Predictably, Dante goes on a killing spree and plans to free his companions from the boundaries of the virtual combat game scenario. In the process, he kills a flotilla of cops who insist on using conventional weapons even if they do not appear to be effective.

In *Brainscan*, the virtual character that crosses the border is called Trickster, a cadaverous character who materializes from a CD-ROM computer game and hangs around Michael's room, sticking his finger in an electric socket for entertainment. His only purpose is to persuade the teenager to kill more people in real life and, as Dante, he appears invincible. In *Avalon*, the contact between the human players and the virtual characters is equally deleterious. On-screen contact with Ghost, a mysterious target that appears as a young girl has left previous players, including Ash's former lover, Murphy, terminally damaged. Devoid of all consciousness and condemned to waste away in a sanatorium, they are known as The Lost. Equally lethal are the virtual players of *Afterlife*, an extremely popular video game presented in *Carver's Gate* (1994). Here, Dinah, the game designer for a company called DreamCore, is really strangled by a sentient video game character during a particularly intense session.

Salvatores's *Nirvana* presents an equally disturbing scenario. Solo, the video game hero, becomes conscious of being a virtual character in an imaginary world, doomed to repeat infinitely the same fabricated actions in what is only the appearance of real life. He wants his game creator to remove him from the computer. But this electronic euthanasia proves problematic for both the programmer and the virtual character. The struggle between virtual and real characters thus constitutes the films' central conflict. The former, created to satisfy man's desire for mediated entertainment, threatens to render their creators and users redundant.

The controller—either a joystick, a joypad (or joypod, in *eXistenZ*)—is like the gun in the Western film: It is the device that both causes disorder and restores the initial tranquility. The image of the player's almost hypnotized stare is an element that appears in a variety of movies. The contestant is lured to the flashing lights of the electronic opponents and the experience of playing becomes a blur, comparable to a hypnotic state of religious trance.

Interestingly, Christian imagery recurs in various *technoludic* films. In both *Tron* and *The Lawnmower Man*, for instance, the victims of the virtual despot are crucified in the digital world. Additionally, in *Tron* the energy source of the virtual characters is some sort of holy water that empowers them. The Master Control Program is chromatically associated with a crimson, devilish red. But above all, Flynn immolates himself to liberate the virtual world from evil. In *The Last Starfighter* the alien dies and then is resurrected, as if he were a "Christian messiah" (Ruppersberg, 1990, p. 36). This can be considered a fictional metaphor of the gaming practice itself, which allows a

constant, immediate resurrection of the gamer's alter ego. Also, Dante's Inferno is the name of the arcade where *Arcade's* characters spend their free time.

In regard to the architecture of the artificial world, these movies present scenarios generated *by* the computer (*eXistenZ*) or as spaces *within* the computer itself (*Tron*). In the latter, programs and subroutines are represented as people and futuristic-looking vehicles respectively. Here, Flynn is chased and haunted by the Master Control Program's slaves, human-looking incarnations of data. The video game characters try on many occasions to wipe him out. The film alternates images of the real and electronic world, and the constant shift is often reinforced by the use of captions such as "Meanwhile in the real world." In the movie *Arcade*, the video game is a hyper-realistic virtual reality simulation that completely enraps the player. But the immersion in the ludic environment becomes lethal for the players.

As Sobchack (1987) argued, the contemporary science fiction film has redefined the spatial and temporal forms of being-in-the-world. As a consequence:

The traditional perception of "depth" as a structure of possible bodily movement in a materially habitable space has been challenged by our current and very real kinetic responses to—but immaterial habitation of—various forms of "simulated" space (from flight training to video games). As a function of this new "sense" of space, our depth perception has become less dominant as a mode of representing and dealing with the world. To a great degree, it has become flattened by the superficial electronic dimensionality of movement experienced as occurring on—not in—the screens of computer terminals, video games, music videos, and movies like *Tron* (Steven Lisberger, 1982) and *The Last Starfighter*. (pp. 230-231)

Lethal icons proliferate in the *technoludic* films (*Brainscan*, *Evolver*, *Virtual Combat*, *Arcade*, *eXistenZ*, *Carver's Gate*, *Avalon*). Baudrillard was among the first to warn about "the murderous capacity of the images: murderers of the real, murderers of

their own model as . . . Byzantine icons could murder the divine identity” (1983, p. 168). The *technoludic* film exemplifies many of postmodernism preoccupations and postulations. As Kuhn (1990) noted, “contemporary science fiction has been hailed as a privileged cultural site for enactments of the postmodern condition—usually more in its nightmarish aspects” (p. 178). As Druckery (1994) added, “for those who herald cyberspace as the fulfillment of *homo ludens*, as the new sphere of the playful intellect, the disappearance of *homo faber* is considered an accomplished fact” (p. 20).

Moreover, the virtual character epitomizes Baudrillard’s definition of simulacrum as a copy without an original. As Kuhn (1990) stressed:

Underlying Jean Baudrillard’s notion of the insistence of simulacra as characteristic of the postmodern condition is an evacuation of the real. Representations do not record, reflect or copy a real world; all is simulacrum and simulacra are copies without originals. The world of simulacra is one of the image, surface, an endless circuit of intertextuality with no originating text, no basic reference point, no escape to the real. (p. 178)

The virtual character is a complex figure, which tends to defy the traditional binary oppositions found in other film genres such as the Western, where the antagonism between the hero and the villain is not ontologically problematic. As previously mentioned, the video game character, in fact, belongs to a fantasy world—the digital world—but it inevitably tends to penetrate into reality. In Jorge Luis Borges’ “The Circular Ruin” (1962), a man tries to create a human being by the sheer power of his imagination: “He wanted to dream a man: he wanted to dream a man with minute integrity and insert him into reality” (Borges, 1962, p. 114). Digital technology has allowed man to create virtual characters that look and behave like real human beings. But, just like Dr. Frankenstein’s creature, they soon rebel against their creators.

Virtual characters are postmodern phantoms (in *Avalon*, incidentally, the main villain is called Ghost), manifestations of a paranormal electronic dimension. Spirits haunts the cyberworld. As Sconce (2000) magisterially illustrated, contemporary culture persistently associates new electronic media with paranormal or supernatural phenomena. In *Haunted Media*, he demonstrates how the accounts of electronic presence have gradually changed over the decades from a fascination with the boundaries of space and time to a more generalized anxiety over the seeming sovereignty of technology: “Sighted media such as television often appeared as haunted technologies in and of themselves. Standing as either uncanny sentient electronic entities or as crucibles for longing wholly sovereign electronic universes” (p. 126).

Moreover, “television (and the other media to follow) seemed capable of generating their own autonomous spirit worlds. Over the past half century, diverse accounts of television have frequently targeted the medium’s paradoxes of visual presence, playing on the indeterminacy of the animate and inanimate, the real and the unreal, the ‘there’ and the ‘not-there,’ to produce a new folklore of electronic media that continue to thrive in contemporary accounts of cyberspace and virtual reality” (pp. 126-127). In this sense, the *technoludic* film continues to feed the fantastical and increasingly paranoid public imagination of electronic media.

The *technoludic* film also tries to simulate the immateriality of the video game and fictionalizes what Sobchack (2000) called the new electronic sense:

A function of technological pervasion and dispersion, this new electronic sense of presence is intimately bound up in a centerless, network-like structure of instant stimulation and desire, rather than nostalgia for the past or anticipation of a future. Television, videocassettes, video tape recorders/players, video games and



personal computers all form an encompassing electronic representational system whose various forms “interface” to constitute an alternative and absolute world that uniquely incorporates the spectator/user in a spatially decentered, weakly temporalized, and quasi disembodied state. (p. 149)

The main narratives of *technoludic* films present strikingly similar structures:

1. The hero, who does not conform to society’s standards for a series of reasons, finds in video games not simply a pastime but a way to affirm his scrawny ego. His fascination for simulations has dreadful consequences as he usually ends up trapped inside a surrogate reality. Sometimes, the hero does not realize at first that he is perceiving simulations or he may be unsure. He may also be so taken in by the realism that he reacts as if the illusions are real, although he knows they are not. In any case, he is imprisoned at first, unable to find his way back to normal perception and needs to perform a series of tasks to return to normality. He experiences various degrees of simulation entrapment and simulation confusion as boundaries between reality and fantasy start to blur.

2. The entrapment in the imitation reality may be the result of an accident of one sort or another, or it may be the work of a malicious simulator—mostly inhuman/technological, a sentient machine—who controls the illusions. In some cases, the malicious simulator creates the illusions out of the hero’s own fantasies, fears, and anxieties, so it appears to the hero he is experiencing situations in which his desires are fulfilled or fears appear to come to life.

3. Typically, the malicious simulator has maximum ability to manipulate the hero-victim. The simulator is trying to achieve any one of a number of goals, which can include one or more of the following: He is trying to win control over the hero; he is

enjoying sadistically torturing the hero; he is using the hero as a puppet to extend his power over the real world; he is trying to defeat the hero who challenged the simulation in a game contest. Yet the strongest urge transcends mere human competition. Player and machine literally and symbolically grapple in a bigger-than-life contrast between a human and perhaps an unknown supernatural force.

4. The malicious simulator may try to achieve his ends by using simulation to reward and punish the hero, offering worlds of unending pleasure, including the pleasure of indulging evil and anti-social desires, but more often by threatening or inflicting pain or terrifying the hero.

5. The hero may encounter other victims in these simulated worlds who may already be controlled by the simulator and who may act on behalf of the simulator to win the hero's compliance. Given that the hero can't trust his perceptions, these other victims may or may not be real. Conscious or unconscious, they are part of a simulation.

6. The hero tries to escape the trap of illusion and safely return to normality. In the process, he may win over fellow prisoners and attempt to free them as well. To escape the trap, the hero must resist the pleasures of simulation and the fear of pain and danger, and/or must see the falseness of lifelike illusions. He uses anti-simulation devices and techniques to see through the illusion and regain the truthful perception of reality. Techniques can include the following: He reminds himself it is a simulation; he looks for discrepancies and imperfections in the illusion, checking what he experiences with what he knows to be true; he uses devices and weapons from the real world which

prove to be effective in the simulation as well, but often relies on human skills which are superior to those of machines.

7. In the end, the hero either successfully escapes the simulation, overcomes the malicious simulator, discovers the reason he was entrapped, and sets things right or else he fails. In the first scenario, when defeated, the malicious simulator may now also be revealed as other than he was perceived. He may suddenly appear weak and have few powers beyond those of illusion.

Alternatively, the hero may end up being trapped forever inside the simulated reality, where he becomes a slave of the malicious simulator and lives a life of virtual sorrows.

The *technoludic* film combines these elements differently and arranges them together in various combinations to create what appear to be different plots, characterizations, and conflict. Yet all of these works are variations on a central idea: Postmodern humanity is suffering from a simulation syndrome, with manifestations that consist in relying on technology to revert to a world of ludic pleasures, escapism, and illusion. The *technoludic* film either assuages these fears or amplifies them; thus it might be regarded as a culturally acquiescent text or, on the contrary, as the locus of a struggle over and within simulation.

The recurrent themes of the *technoludic* film as a commentary are the conflict between technology and human nature; the spatial and temporal displacement of the human in a post-human world, that is the video game space, the birthing of virtual clones, human surrogates and digital substitutes through corporations, which, in turn, lead to a

blurred distinction between human and non-human. Other themes are the superiority of emotions and feelings over aseptic and cold technology, video game as a dangerous activity.

Although new electronic technologies have inspired changes in some pop culture texts, often the *technoludic* film seems to stubbornly recycle conventions from the past, refusing to come to terms with the new postmodern social order.

***The antagonism between the player and the avatar.*** The term “avatar” derives from the Sanskrit *avatara*, “he who crosses over.” An avatar is the incarnation of a Hindu deity (as Vishnu), but also “an incarnation in human form,” “an embodiment (as of a concept or philosophy) often in a person,” and “a variant phase or version of a continuing basic entity” (Merriam-Webster Collegiate Dictionary, 1997). In cyberspace, the term avatar generally describes various representations of real people in customizable, computer-generated environments, such as video games. By having an in-world identity, real or assumed, temporary or permanent, user integration into the experience is significantly heightened. Customization includes the ability to represent human characters within the experience with much more realistic subtlety, whether it is a representation of digitized faces or even complete bodies. This graphic representation of the self is made possible within the constraints of the media and the catalog of available body parts and props.

In the context of *technoludic* films, the term avatar is used to identify the player’s ludic persona, his electronic ersatz, and his alter ego. Although a virtual game character does not necessarily resemble the real player, the avatar is her or his perfect replica. In

other words, the avatar is the player's surrogate that appears onscreen and is remotely manipulated through a joystick. A fictitious double, an indistinguishable copy. Although the virtual character is a Baudrillardian simulacrum (a copy without an original), the avatar, at least aesthetically, resembles his or her referent. The antagonism between the player and his electronic copy constitutes a *leitmotiv* of the genre.

Films such as *eXistenZ*, *Avalon*, and, to some extent, *Tokyo Eyes* exemplify this dichotomy. They constitute unsettling speculation of the permeable borders that separate humans and their digital proxy. In the context of these films, the founding opposition between the organic and the technologically enhanced human is both asymmetrical and unstable and rendered problematic at several levels. This narrative works by upsetting the presumed superiority of the original over the copy but also by demonstrating how humans and machines are inextricably connected. In these films, the boundaries between the two appear porous. The *technoludic* self is a highly permeable entity. As Nichols (2000) suggested:

The Power of the simulation moves to the heart of the cybernetic matter. It posits the simulation as an imaginary Other which serves as the measure of our own identity and, in doing so, prompts the same form of ambivalence that the mothering parent once did: a guarantee of identity based on what can never be made part of oneself. (p. 96)

The protagonist of the *technoludic* film is, by definition, unstable, fragmented and disembodied. In other words, it is a fictional version of the postmodern subject. These movies are replete with images of solipsistic, dissociated, disengaged characters whose replicas endanger their physical and psychic equilibrium. The video game players are, by default, alienated, or, as Skirrow (1986) argued, schizophrenic (aptly, in *Tron*, game

designer Flynn's most popular creation is titled *Space Paranoids*). Two examples are Ted Pikul in *eXistenZ* and Edward Furlong in *Brainscan*: two schizophrenic subjects who inhabit a hyperreal realm of their own. They are no longer a unified entity if they ever were, but free-floating fragmented beings. Deleuze and Guattari (1987) discussed the construed schizophrenic subject as a strategy for survival in a Western world of late capitalism. This schizophrenic subject is the outcome of an increasingly pervasive technological hyperreal landscape.

Baudrillard (1988) expounded on this state of schizophrenia as an "ecstasy of communication," that is, "a defenseless state proper to the schizophrenic: too great a proximity of everything, the unclear promiscuity of everything which touches, invests and penetrates without resistance, with no halo of private protection, not even his own body, to protect him anymore" (p. 45). The schizophrenic subject resembles Herz's *cyberkid*, an evolution of homo sapiens who is able to parse 16 kinds of information simultaneously from telephones, televisions, fax machines, pagers, personal digital assistants voice messaging systems, postal delivery, office e-mail, and the Internet. Herz (1997) suggested that "a lifetime of video games confers a certain advantage, because video games are the only thing that approach the pace of modern life" (p. 15). The *cyberkid* operates in multi-tasking and possesses several identities at once (see also Johnson, 1997). The schizophrenic subjectivity also questions the Cartesian dualism of body vs. mind, as it embraces shifting and contingent selves and experiences. A film like *Tron* valorizes the differentiated individual over the anonymity of the electronic avatars. At the same time, it condemns the ontological hybridity of a figure that belongs to several

planes of reality at once. A very similar scenario can be found in *eXistenZ*. At one point, the game designer Allegra Geller tells a baffled Ted Pikul whose avatar has just said something that the real Pikul would not have ever said: “It’s your character who said it. It’s kind of a schizophrenic feeling isn’t it? You’ll get use to it. There are things that have to be said to advance the plot and establish the characters, and those things get said whether you want to say them or not.”

It follows that the avatar constitutes a category in itself, which transcends rigid classifications. As Telotte (1990) argued:

If this ongoing fascination with doubling becomes a dominant force in man’s life, distancing him from the real rather than bringing him closer to it, he runs the risk of becoming little more than a copy himself, potentially less human than the images fashioned in his likeness. (p. 157)

As previously illustrated, Baudrillard has suggested that the totalizing implosive orders of the informational age have accelerated the collapse between reality and hyperreality. Avatars and digital replicas are not only indicative but also symptomatic of this new ontological (dis)order. Avatars undermine definitions of the natural and the real, and signal the loss of identity. The video game player is, in fact, often split, sometimes literally, and the two halves of his personality cannot be united to form a whole personality. As Baudrillard provocatively put it: “contemporary society is preoccupied with saving our identity and proving our existence” (1998, p. 29).

Once again, *Tron* exemplifies this fear. Early in the film, Flynn is trying to access information from Encom’s mainframe. This process is visually displayed as a video game, a struggle between Flynn’s avatar—who looks exactly like him apart from the data suit he’s wearing—and the Master Control Program’s soldiers. Flynn’s avatar gets

captured and destroyed, although this does not affect the real Flynn. *Tron*'s digital world is populated with virtual clones (programs) of video game players (users). Each human character has a clone counterpart, whose body glows in circuitry patterns.

The ambiguous duplicating process is never really explained in the film, but in one scene, the clones are led to believe that the users—the real human beings—are in fact a myth, a “superstition” (see Weinberg, 1982). The first step in this iconic hostile take over consists of the creation of a mythopoesis of reality. As Baudrillard (1983) suggestively argued:

The age of simulations thus begins with a liquidation of all referentials—worse: by their artificial resurrection in systems of signs, a more ductile material than meaning, in that it lends itself to all systems of equivalence, all binary oppositions and all combinatory algebra. It is no longer a question of substituting signs of the real for the real itself, that is, an operation to deter every real process by its operational double, a metastable, programmatic, perfect descriptive machine which provides all the signs of the real and short-circuits all its vicissitudes. (p. 4)

To which Sobchack (1987) added:

For most of the film, almost everything and everyone have mutated into a simulation, and the category of the “real” (that narrative “real world” mainframing the computer program world) is short-circuited and loses power. Simulations seem the *only* mode and space of being. Thus, what Baudrillard says of electronic pervasiveness of television can also be said of the electronic world visualized by *Tron*. (pp. 256-258)

*Tron* also exemplifies the allegory of the cave in Plato's *The Republic*. The allegory features a number of prisoners in a cave who spend their entire lives trapped underground, and who can only see shadows of themselves cast on the walls opposite them (they can't turn their heads even to see the source of light). Not surprisingly, these prisoners end up believing that their shadows are reality. The cyberworld of *Tron* is the equivalent of Plato's underground. The virtual characters created by the Master Control



Program are basically prisoners of the digital world. If they were to escape to the surface (Reality), they would be free but also baffled, since they do not know there is another dimension of reality separated from their electronic cave. They would be completely unable to make sense of the real world and would be blinded by the sun. Video game characters are simply shadows on the screen. The only character who is able to perceive the deception is Flynn, who is a real character trapped inside the virtual world. He does not even try to convince the programs that another reality exists, because he knows that they would mock him, ridicule him, and call him mad.

To summarize, the filmic avatar is a depiction of a virtual projection of an individual in an artificial world; thus it is a depiction of a depiction. Its narrative usage parallels the original mythological meaning, i.e., he or she is an incarnation of an omnipotent deity, an embodiment or manifestation of an idea or greater reality. Unsurprisingly, the common trope of films like *Tron*, *Virtual Combat*, *Arcade*, and *Nirvana* is that of the computer using avatars to phase out its master and creators, i.e., human beings. The computer—often depicted as a demonic entity—is either trying to force humans into slavery or to merge with humans or to make a new super race.

These films reveal both a growing popular fascination with *technoludism* and its potential for reshaping the human, and a lingering, subtle distrust of this influence. In her well-known essay, “A Cyborg Manifesto” (1991), Haraway describes the cyborg as a subversive, ironic model for transcending the traditional categories of gender, culture, race, originality et similia. Haraway (1991) argued that:

[A] cyborg exists when two kinds of boundaries are simultaneously problematic: 1) that between animals (or other organisms) and humans, and 2) that between

self-controlled, self-governing machines (automatons) and organisms, especially humans (models of autonomy). The cyborg is the figure born of the interface of automaton and autonomy. (p. 139)

According to Haraway, the cyborg is a problematic figure as it challenges the conventional dichotomies such as male and female, self and other, reality and fantasy, appearance and substance, and whole and part, that constitute the fundamentals of Western dualism, as suggested by Lévi-Strauss.

The figure of the avatar that monopolizes the *technoludic* movie is equally problematic. Its very depiction raises both ontological and epistemological problems. The avatar constantly oscillates between the real world and the digital world. As a futuristic simulated being, the avatar is always trying to suppress, replace, and assassinate the original (Baudrillard's perfect murder). Similarly, avatars and digital characters are not killed, but erased, just like *Blade Runner*'s replicants were retired. Other clones appear in *The Last Starfighter*: Here the video game champion Alex Rogan is replaced by an alien shape-shifter (called simuloid) while he is fighting the Ko-dan Armada in space.

To fully explore the figure of the avatar it is useful to recall the notion of the anomalous category, formulated by Lévi-Strauss' (1967, 1969). An anomalous category is one "that does not fit the categories of the binary opposition but straddles them, dirtying the clarity of their boundaries" (Fiske, 1990, p.118). According to Fiske (1990), anomalous categories are constructed by the culture itself:

To mediate between two opposed categories when the boundary appears too stark, too terrifying. Thus, many cultures mediate between gods and people by means of anomalous figures (angels, Jesus Christ) who partake of both. Similarly there are numerous mythological or religious figures who mediate between humans and animals (werewolves, centaurs, and sphinx), and between the living and the dead (vampires, zombies, ghosts). (p. 118)

These anomalous categories partake of the categories that they mediate and consequently are neither fish nor fowl. Not only do they have too much meaning (“they are conceptually too powerful,” as Fiske noted, p. 118): They are also dangerous and somehow polluted. Judging from the *technoludic* films examined, it might be suggested that the avatar—like the cyborg, the android, and the replicant before—bears a close resemblance to one of the oldest literary motifs: the *Doppelgänger*, the double. As Francavilla (1997) noted:

Twins, shadows, sibling empathy and rivalry, reflections in water or other shiny surfaces—these are some of the natural phenomena which early literature mythologized into figures of the double. Other figures of the double also evolved: ghosts, living portraits, statues, dolls, and automatons; vampires and werewolves; the homunculi and the golem; guardian angels and devils; and possessions of humans by gods, spirits, or demons. (p. 4)

Castle (1995) added that:

Doubles, dancing dolls, and automata, waxwork figures, alter egos and ‘mirror’ selves, spectral emanations, detached body parts . . . the ghastly fantasy of being buried alive, omens, precognitions, *déjà vu*—all of these, says Freud, are ‘uncanny themes’ par excellence. What makes them uncanny is precisely *the way they subvert the distinction between the real and the phantasmatic*. [italics added] (pp. 4-5)

In fact, Freud’s description of the uncanny is extremely useful in analyzing the figure of the avatar, and making sense of its ambiguity. In his seminal essay, Freud suggested that the *Doppelgänger* is a manifestation of a class of phenomena known as “*unheimlich*,” the German word for uncanny, strange, and eerie. Thus, the *Doppelgänger* is a species of the uncanny, something that “in reality [is] nothing new or alien, but something which is familiar and old established in the mind and which has become alienated from it only through the process of repression” (1995, p. 241).

Intriguingly, Freud (1955), traced the origins of the *Doppelgänger* in toys and games:

We remember that in their early games children do not distinguish at all sharply between living and inanimate objects and that they are especially fond of treating their dolls like live people. (p. 233)

In infancy, Freud continues, “the child has no fear of the doll coming to life, it may even have desired it.” Hence “the source of the feeling of an uncanny thing would not therefore, be an infantile fear in this case, but rather an infantile wish or even only an infantile belief” (pp. 234-235). Moreover, in his essay Freud discussed E. T. Hoffman's short stories, labeling him as “the first and unrivalled master of the uncanny” (p. 238).

Specifically, Freud discussed one of Hoffman's recurrent themes, the dancing doll or the automaton, the automatic doll Olympia in the *Sandman*. It is worth mentioning that mechanical dolls such as Olympia and Maelzel's chess player have been indicated as the cultural precursors of modern video games (Ascione, 1999).

According to Freud, uncanny experiences happen when once-repressed infantile complexes are somehow revived or when once-discarded primitive beliefs seem suddenly to be in operation. These beliefs include the conviction that thoughts are omnipotent, that telepathy exists, the dread of the evil eye, ghosts, animism, the compulsion to repeat actions or events, and other varieties of superstitious and magical thinking. Freud also suggested that the *Doppelgänger* originated as a defense mechanism against death in the form of guardian spirits or as an immortal soul represented by a shadow or mirror reflection:

The “double was originally an insurance against the destruction of the ego, an “energetic denial of the power of death,” as Rank says; and probably the

“immortal” soul was the first “double” of the body. This invention of doubling as a preservation against extinction has its counterpart in the language of dreams, which is fan of representing castration by a doubling or multiplication of a genital symbol. The same desire led the ancient Egyptians to develop the art of making images of the dead in lasting materials. (Freud, 1955, p. 235)

According to Freud, the *Doppelgänger* often represents the harbinger of death (pp. 234-235). Doubles compete for the same space, rank, and even the right to existence. The competition further implies the threat of displacement: The original self may lose its uniqueness and its identity to the other self, which replaces the original. As Sobchack argued (2000):

Cinematic and electronic media have not only historically *symbolized* but also historically *constituted* a radical alteration of the forms of our culture's previous temporal and spatial consciousness and our bodily sense of existential 'presence' to the world, to ourselves, and to others. (p. 137)

Interestingly, several films explicitly or implicitly equate the simulated, digital world to the subconscious; thus video games can be interpreted as the electronic equivalent of dreams or nightmares. The game world becomes a psychic playground that transforms reality itself into a scenario and involves the acting out of basic and primitive instincts and desires.

As Robins (1996) suggested, “the techno-environments of cyberspace and virtual reality are particularly receptive to the projection and acting out of unconscious fantasies” (p. 84). The idea of a machine that can transform subconscious fears, desires, and anxieties into images is a recurrent theme in science-fiction films. It can be found, for instance, in *Brainstorm* (1982), and *Futureworld* (1976), *technoludic* films *avant-la-lettre*. In a *technoludic* film, this concept acquires a whole new set of meanings and implications. For example, in *eXistenZ*, the game connects directly to the player's

nervous system through a bioport and feeds on his or her subconscious to achieve the maximum level of realism. The same idea can be found in *Carver's Gate*: the players enter the world of *Afterlife*, "the most satisfying experience ever," by inserting the plug directly into their cerebral cortex. Interestingly, in the film, the company that produces the game is called Dreamlife. Similarly, the video game depicted in *Brainscan* promises to "interface with the unconscious" to deliver the most realistic simulation ever. In *The Lawnmower Man*, technology and drugs amplify the character's aggression, transforming him into a killer.

In all of these examples, users are literally taken over by something inherent in their own consciousness, mostly a compulsive addiction to their dreams, desires, and fears. As an outcome, the resulting technology grows more and more disconnected from human agency.

As Lévi-Strauss suggested in *Structural Anthropology* (1967), the double is usually involved in myths which attempt to mediate unfathomable oppositions in the world: life and death, day and night, male and female, self and other, human and nonhuman, animate and inanimate. These myths grapple with the undecidability of mutually exclusive categories: Is something alive or dead, human or nonhuman?

The avatar transcends these conventional oppositions.

Perhaps another way of expressing this mediation is to say that myths including double figures also tried to deal with the intellectual uncertainty concerning the contradictory nature and behavior of what is considered essentially the same thing or

person. The problem the myths addressed in this case is how a single object or person can be split into two or can be perceived in two paradoxical ways.

Telotte (1995) stressed that, among all the film genres, the science fiction film epitomizes the motif of the double:

The fascination with the double is central to our thinking about—or rethinking—the nature of cinema as a site of reproduction. It is, of course, a place of human doubles where we see the captured and reproduced images of others. But it is also a point of manufacture, a place where—as our science fiction films are mostly aware—we fashion images of what we would like to be and how we would like our world to look, as well as a point at which we start internalizing that cultural manufacture, attempting to live up to those images, or to work out our best variations or compromises with them. (p. 23)

Video games reflect our ambivalence about technology. They represent the ultimate toy. But they are also literal projections of anxieties concerning dehumanizing technology.

The recurrent fear consists in simulation taking over the real, a scenario prefigured by Baudrillard: Avatars, being virtually indistinguishable from humans, may substitute and replace real humans. Avatars are man-made replicas, new kinds of doubles, and they represent a trope for the self. Their virtual fidelity to real human beings may reflect our need or desire for a perfect replication.

Another notion that reflects the (inhuman) condition of the video game player is McLuhan's notion of technological numbness. In *Understanding Media* (1964), the Canadian media theorist explained the psychological consequences of a given media environment recalling and updating the myth of Narcissus. The youth Narcissus mistook his own reflection in the water for another person. This extension of himself by mirror numbed his perceptions until he became the servomechanism of his own extended or

repeated image. The nymph Echo tried to win his love with fragments of his own speech, but in vain. He was numb. He had adapted to the extensions of himself and had become a closed system. The idea is that men at once become fascinated by any extension of themselves in any material or form other than themselves.

The Narcissus myth is coupled with the principle of numbness, which comes into play with the advent of electric technology. According to McLuhan, in a saturated mediascape, an overexposed central nervous system needs to be numbed down to circumvent side effects such as information overload. According to the Canadian scholar, the age of anxiety and of electronic media is also “the age of the unconscious and of apathy” (1964, p. 47). As a given medium extended a given sense organ into the world, and built a media environment around that particular sense ratio, this sense organ was overwhelmed by this overextension to the point where our entire sensory apparatus begins to shut down.

Numbness leads to a deliberate unawareness of the media environment itself. However, this numbness is also dangerous, insofar as it makes us unaware of the media environment and its changes.

The video game player perfectly exemplifies McLuhan’s theorization. In his filmic depiction, he is often portrayed as a victim of sensory overload, which ironically leads to an ironic sensory deprivation, an emptying out of his or her capacity to think or feel. The video game player appears onscreen as if he or she were in a kind of mediated coma produced by an excessive stimulation/simulation. However, as McLuhan (1964) noted:



Despite our self-protective escape mechanism, the total-field awareness engendered by electronic media is enabling—indeed, compelling us—to grope toward a consciousness of the unconscious, toward a realization that technology is an extension of our bodies. We live in the first age when change occurs sufficiently rapidly to make such pattern recognition possible for society at large. (p. 48)

In conclusion, it might be argued that the avatar—like the cyborg, the android, the robot, and the replicant—is a postmodern manifestation of the *Doppelgänger*.

Rather than being invested with the magical and supernatural, this newer incarnation is the product of state-of-the-art technology. The difference between the two is debatable, if Arthur Clarke's aphorism—“Any sufficiently developed technology is indistinguishable from magic”—is to be believed.

*Recurrent contrasts between game players and society at large.* As previously mentioned, the vast majority of video game players are portrayed as alienated, lonely, troubled teenagers. They have a difficult relationship with their parents, who usually play a very marginal role in *technoludic* films. As Schelde (1993) argued:

At heart, *Wargames* is about parents in our rushed, technological society who are too busy with their own lives and problems to teach values to their children. David's parents are ineffectual and money-grapping. Joshua's parent, the scientist who created the program, is so disillusioned with the world that he has decided that a nuclear apocalypse is probably about due—to give Mother Nature a chance to start over with the dinosaur. (p. 134)

These texts seem to suggest that the narcissistic allure of video games provides introverted kids a retreat from reality into a technologically saturated bedroom. It follows that the teenager prefers to interact with machines in that phantasmatic world in which they can feel empowered rather than meeting people *vis-a-vis*. As Robins (1996) suggested: “The virtual world may be seen as constituting a protective container within

which all wishes are gratified and ungratifying encounters with the frustrations of the real world auto-magically deferred” (p. 84).

*Brainscan*'s (1995), protagonist, Michael, for instance, is a video game buff who lives a lonely life in an attic, surrounded by high-tech technology in the form of a computer with state-of-the-art audiovisual capabilities, a huge TV set, and a high-fidelity audio system with extremely loud speakers. He uses his remote-controlled video camera to spy on the teenage girl next door because he is too shy to approach her. Video games are not his only passion: He is also morbidly fond of horror movies and heavy metal, a combination that is suspiciously recurrent in *technoludic* movies. The film narrative also indicates that the boy's withdrawal into a world of violent entertainment is subconsciously motivated by the traumatic loss of his mother (who died in a terrible car accident) and the constant absence of his workaholic father. The latter does not even appear on the screen once: He interacts with his son only through technology, specifically, an answering machine.

Disintegrated families also recur in *Arcade* and *Evolver*. The former revolves around Alex (Megan Ward), a high school senior with some serious problems, mostly stemming from the fact that her mother committed suicide a year ago and her dad has not recovered ever since. The girl finds solace in her boyfriend Greg (Bryan Dattilo), friends, and, above all, video games. Alex and her companions hang out in a popular video arcade, Dante's Inferno, where they play the latest revolutionary game, *Arcade*.

A similar situation can be found in *Evolver*. The hero, an introvert high school student called Kyle, uses video games as a way to cope with the family's crisis. In fact,

his parents have recently separated: The subsequent loss of the father figure and the inability to accept his mom's tendency to go out every night are presented as a traumatic event for the teenager. Kyle seems to find the environments of violent video games more stable and controllable than the real ones.

Other troubled families appear in *The Wizard*. The main character, Jimmy, is an emotionally introverted child who never fully recovered from the death of his sister. He runs away from home with his older brother, Corey, to play video game in a national contest. Along the way, the two meet a girl called Hailey, who, having no parental supervision of her own, decides to join them.

*Wargames'* (1982) protagonist, David (Matthew Broderick) is described by an FBI agent as an "intelligent underachiever," a kid "alienated from his parents," who "has few friends," in summary, "a perfect recruit for the Russians." Next line in the dialogue is: "So, what does this say about the state of our country?"

Similarly, the main character of François Limosin's *Tokyo Eyes* (1999), a teenager enigmatically called K., is a misfit loner much like the character of the same name in Kafka's *The Trial*. He creates an alter ego, Four Eyes, who plays a justice-seeking role. In fact, he walks the streets of Tokyo with a gun, ready to punish. The hero inhabits a very complex technological world: His apartment is replete with music albums, computers, video games, and digital cameras. He is both a consumer of video games (in one scene K. plays *Virtua Fighter* in an arcade) and a producer (he is a programmer); in other words, he is a perfect incarnation of the Tofferian prosumer. On one hand, he is a master of his surroundings, and he is even able to misdirect them, to doctor them. On the

other, he appears to be enslaved by technology. K. is a cinematic otaku-zoku, one of “Japan’s socially inept but often brilliant technological shut-ins” (Greenfeld, 1994), who consume “sexy manga or violent video games.” In particular, K.’s character closely resembles Greenfeld’s profile of Zero, a 25-year old self-proclaimed otaku whose life,

Revolves around video computer games. He only ventures out of his six-mat in Kawagoe to acquire new game-boards, the green, maze-like “minds” taken from commercial arcade games like *Galaga* or *Space Invaders*. At home, he plugs these circuit boards into a special adapter on his own console, analyses and dissects them for bugs and flaws that allow one, for example, to glimpse a *space invader*’s afterimage as it scuttles across the screen or to change the color of a yellow *Ms. Pac Man* to purple. (p. 55)

Other depictions of video game playing as asocial, alienating activity can be found in *eXistenZ* (1999) and *Avalon* (2001). In the former, Allegra Geller is a game designer and an avid player. A character describes her as a person “who spends her days secluded in a room making games.” Mamoru Oshii’s *Avalon* is set in a near future in an imaginary central European city, where the highly addictive computer game *Avalon* offers lavish financial rewards as well as a dangerous and seductive escape from the bleak realities of everyday life. The main character, Ash, is a professional, a highly skilled player moving back and forth between actual and virtual realities with ease. She plays *Avalon*, a game in which youths abandon themselves to the thrill of killing and dying several times. A loner, estranged from her fellow man, Ash shows emotional attachment only to her beloved pet dog, which constitutes her only contact with the “real world.”

The quintessential asocial specimen is Thomas, the protagonist of Pierre-Paul Renders’s *Thomas in Love* (2000). The 32-year-old man suffers from acute agoraphobia.

For eight years, he has neither left his home nor let anyone in, and his only contact with other people is through the computer screen, which allows two-way video-ponic connection. In his deliberate techno-seclusion, Thomas finds virtual pleasure with an interactive sextoon video game featuring Clara, a large-breasted, computer-generated woman in a cute bellhop outfit, a three-dimensional virtual sex symbol designed specifically to turn men on.

Another interesting case in point is Cameron Colley, the protagonist of a British film titled *Complicity* (1999). Colley is an Edinburgh journalist who becomes entangled in a story of violence, sex, and murder. Cameron is a heavy smoker, a heavier drinker. He consumes hard drugs, experiment with sadomasochistic sex, and, above all, is compulsively addicted to computer games. A mysterious informant is feeding him just enough information to get him running about the countryside trying to track down a major story that shimmers enticingly just beyond his grasp. The stakes are raised when Colley, a not altogether likable but unfailingly interesting character, is implicated in a series of carefully planned assaults, most of them deadly and each with a message to send. Irresponsible businessmen, a pornographer, an incompetent doctor, a judge whose leniency set a convicted rapist free to strike again. Based on a novel by Ian Banks, *Complicity* clearly presents video gaming as a morally questionable activity. A vice, in other words.

In terms of gender, the vast majority of video game players are male. However, a major shift occurred in the *technoludic* films of the late 1990s. Initially, the female characters played a mere supporting role that would have such abysmal lines as: "So,

what's so special about playing games on some machine?" (from *Wargames*). In movies like *The Last Starfighter*, *Tron*, and *Wargames* female characters appear simply as a companion of the male player. Gray (1992) observed that:

As games playing has become an activity of public concern and interest, the continuing portrayal of computer games as an activity only of boys is very worrying. In so many accounts of previous youth cultures, female participants have been rendered invisible. (p. 224)

Nichols (2000) suggested that:

The hidden agenda of mastery and control, the masculinist bias at work in video games, in *Star Wars*, in the reality of the simulation, (of invasions, raids, and wars), in the masculine need for autonomy and control as it corresponds to the logic of a capitalist marketplace becomes dramatically obvious when we look at the artificial reproduction of artificial life. (p. 110)

There are few exceptions, such as the girl in Sayles' *Brother from Another Planet* (1984), for instance, who can "play all day long with a quarter" and complains that "they don't make the game fast enough." She laments about playing the game: "It's like everything in the world is going in slow motion except you. Boring, right?" She is so skilled that she cannot stand the predictability of the game itself: "There is nothing I can do about it. I know what is going to happen before it does." Since "nothing changes," she is just "shooting it down when it's onscreen." The girl, who is described as a "fucking zombie" and "*totalmente loca*," someone who "wears the machine down, *todo los dias*" is helped by Joe, a technologically-gifted alien. He speeds the game up until she loses, for the first time. And then she is finally happy.

The vast majority of female characters in *technoludic* films are not even players, but bored spectators. But in recent years, the situation has drastically changed: The

original masculine mastery over technological devices such as video games has been replaced by extraordinary female dexterity.

In fact, the most interesting element of such disparate films such as *eXistenZ*, *Lara Croft: Tomb Raider*, *Avalon*, *Arcade*, or even Asian comedies such as *Sexy and Dangerous* (1996), is the casting of a female character in the role of the video game champion, a role traditionally reserved for males. These films do not only break with the conventions of having a male hero: They break with conventions of female heroism or female independence as well. *Avalon*'s Ash, *eXistenZ*' Allegra, and *Arcade*'s Alex, for instance, appropriate qualities traditionally identified with male heroes. They are skilled, brave, resourceful, tough, and well trained for combat. The passive Lora (*Tron*) has evolved into the emancipated Lara (*Tomb Raider*). In the 1990s, women, who used to function as objects of spectacle in the early *technoludic* films, became subjects.

The change in cinematic depiction of women is gaming duplicated the rise of popularity of female characters in video games (Schleiner, 1998; Haumersen, 2000; and Wright, 2000). As Cunningham (1995) argued:

The experience of playing games has been transformed since the days of *PacMan* and *Ms. PacMan*. Gillian Skirrow's claim that 'the pleasure of computer games is gender specific . . . women do not play them' is no longer valid. (p. 224)

Still, the vast majority of video game players' depictions in films remain mostly negative. They are represented as lonesome, asocial, isolated, alienated, and potentially aggressive figures. They are stereotyped as geeks, nerds, and *otaku*. They all crave mastery over their surroundings through the use of machines and they prefer mediated rather than direct interaction with people.

Moreover, a certain number of films that features video games in their narratives open with images of players struggling with an electronic machine. This happens, for instance, in *Tron*, *Wargames*, but also in *Fast Times At Ridgemont High*. Iconographies of video game playing include: images of players reflected on the monitor (as if the player were a technoludic Narcissus), hands grabbing joysticks and frantically pushing buttons, and video game champions surrounded by fans and friends when breaking a record (*Tron*, *Nightmares*, and *The Last Starfighter*). As in the vast majority of video games, the death of a virtual character is often cinematically rendered by their sudden and complete disappearance from the scene (*Tron*, *Virtual Combat*, and *Avalon*).

***Battles against corporations.*** A recurrent theme of the *technoludic* film is the antithesis between the game player and the game company. The latter is usually depicted as a ruthless, faceless firm often directly involved with the military. The game-military connection recurs in films such as *Brainstorm*, *Wargames*, *Evolver*, *Toys*, and *The Lawnmower Man*. Here, government agencies seek video for game simulations as technologies that can be used on the battlefield rather than in the arcade. As a matter of fact, the ties between the military and the video game industry are well documented (see Herz, 1997; Herman, 2001 & Kent, 2001).

In *Toys* (1993), a military officer takes control of part of a toy company, to produce a miniaturized, remotely controlled army. The miniature army will itself be controlled through a series of video game style interfaces, run by children trained on video games. As Turkle (1985) suggested, “we turn games into reality and reality into games. . . . Simulations are modeled after the real but real war is also modeled after its



simulations” (pp. 72-73). The film has an interesting subtext about the state of the military-industrial complex following the downfall of the Soviet Union, and it does take seriously certain child psychology claims about the effect of war toys on children. In particular, there is a clear dichotomy between war toys, which are used to represent military senselessness, versus more anthropomorphic toys, which symbolize innocence.

As Wolf (2000) noted:

The desensitizing effects of warlike video games, coupled with the distancing effects of remote control and telepresence technology, help to bridge the gap between civilian and soldier, making the events of war seem gamelike and commonplace. (p. 202)

Just like *Wargames*, *Toys* emphasizes the increasing connection between games and war simulations. The very same opposition can be found in *The Lawnmower Man* and *Brainstorm*.

Dr. D’Angelo (Pierce Brosnan in *The Lawnmower Man*) and Dr. Reynolds (Louise Fletcher in *Brainstorm*) see virtual reality as a powerful educational tool. In contrast, the military, represented as the secret organization called The Shop in *The Lawnmower Man* or as unnamed generals in *Brainstorm*, want to transform it into a lethal weapon. In both films, the scientists refuse to collaborate. Another example can be found in *Wargames*. Here, Dr. Stephen Falken (John Wood) decides to give up academic research and become a hermit after discovering that his super computer, Joshua, has been used for military purposes by the N.O.R.A.D. In *Evolver* (1995), it soon emerges that the heinous villain—a killer robot programmed to win all the video games—is built up from a discarded military project.

In other films, *Tron*, *Brainscan*, *Carver's Gate*, and *Virtual Combat* in particular, the software house itself is presented as pure evil. These films often present single humans fighting electronically (em)powered, multinational capitalism. *Virtual Combat's* main villain, for instance, is a computer tycoon who wants to market his latest invention, a combination of DNA and virtual reality that creates creatures who look and feel real. The megalomaniac mogul does not hesitate to kill in order to pursue his goals. In *Carver's Gate*, the cybercop Carver has to fight the CEO of DreamCore, the producer of the mighty popular *Afterlife* game, both in the real and in the virtual world.

*Tron's* plot revolves around a former top-notch video game programmer named Kevin Flynn who hacks his way into the mainframes of his ex-employer, Encom Corporation. He tries to unearth evidence that Encom executive Ed Dillinger (David Warner), stole his code and passed the games off as his own, leaving him to eke out a meager existence as owner of a video arcade. When one character, Dr. Walter Gibbs questions Encom's policy, Dillinger's warily replies that: "Encom isn't the business you started in your garage anymore. We're bidding accounts in thirty different countries, new defense systems. We have one of the most sophisticated pieces of equipment in existence." To which Gibbs replies: "I know all that. Sometimes I wish I were back in that garage," and Dillinger's sardonic comment is: "That can be arranged, Walter."

Only after a long struggle is Flynn able to both literally and figuratively reintegrate himself into the real world. Having discovered the files that proved the corruption of Encom's CEO, Flynn gets rehired and promoted.

Similarly, in Salvatores' *Nirvana*, Jimi engages in a fight against his company, *Okosama Starr*, a multinational leader in its field. He tries to erase the copy of a virtual character called Solo from the mainframe. Finally, *eXistenZ* revolves around a clandestine war between game companies who are trying to own the ultimate mind-controlling game.

In a sense, video games simply extend the gradual process of dehumanization that was cinematically parodied by Charlie Chaplin in *Modern Times*. The common denominator of the Modern Age and the Information Age is that humans must adapt to the mechanical rhythms and demands of machines to survive. The *technoludic* film openly condemns this process by equating video games and their creators to everything that represents inhumanity.

**Conclusion.** The *technoludic* film as a commentary questions, challenges, and comments on changes observed or intuited in contemporary society. Hopes for digital transformation are closely linked to anxieties or dystopic dread about the direction change might take. Interestingly, 16 out of 18 of the films analyzed show a clear condemnation of ludic technologies. Apart from *The Last Starfighter*, and *The Wizard*, all the other texts can be considered technophobic in their depiction of video games. The *technoludic* film is thus comparable to the cyberthriller of the 1990s, a sub-genre of the science fiction film that has been investigated, among others, by Claudia Springer (2000). In film such as *Johnny Mnemonic* (1995), *The Net* (1995), *Virtuosity* (1995), *Hackers* (1995), and *Strange Days* (1995), cyberspace functions as a device for filmmakers to recreate the self in a depleted and corrupt external world, experimenting with both

liberatory and repressive scenarios. Each film acknowledges the capacity of cyberspace to alter human identity. But even though the films experiment with expanded electronic embodiment, they all eventually establish the supremacy of the real.

The *technoludic* film depicts the advent of Baudrillard's prophecies on the hyper-real. As previously illustrated, the hyper-real coincides with "the blurring of distinctions between the real in the unreal in which the prefix 'hyper' signifies more real than real whereby the real is produced according to a model" (Best & Kellner, 1991, p. 119).

The overlapping between the game world and the real world produces hyper-reality. Baudrillard used the term implosion to define the collapse between the image or simulation and reality that precludes to their identification. Ergo, the *technoludic* film is a narrative of implosion.

Interestingly, the attachments of unsettling meanings to video games in movies is happening exactly at a time when computers are becoming more than ubiquitous devices for any imaginable purpose, and are acquiring an astonishing ability to accurately describe the environments and convincingly reproduce bodily senses. Replacing the real world with possible worlds, video games ultimately offer both the seductions and subductions of a postmodern dimension.

These movies present high levels of technophilia, displaying the fated catastrophe when the sophistication of a model outdoes the reality it attempts to comprehend. The prospect of having a complete, accurate simulation of the real world, no matter how unfeasible it might be, is giving a new face to the old epistemological quandary: what is real? How can we be sure that a reality exists outside of ourselves?

In this context, the otherwise ancient and apparently innocent cultural activity of playing games has turned into this hyper-realistic metaphor, in which the blurring of the borderline between life and game becomes a sinister menace. As Telotte (1995) suggested, the science fiction genre:

Seems to have at its core a concern with how we can “be,” that is, with how we can maintain our human being within a context, as thoroughly constructed and technologized as it is, that typically seems to condition, qualify, or challenge our traditional human identity. (p. 7)

In the age of electronic reproduction and replication, the unique status of the human being is challenged by technological and *technoludic* transformation. Cinema explores these concerns, but rather than providing explanations, it ends up posing more questions. The most crucial remains: “If we rely so totally on technology to locate ourselves, to even *be* ourselves, does that mean we are still ‘human’, and is it still possible (or even desirable) to define the boundary between the human and the machine?” (Bell & Kennedy, 2000, p. 4).

Similarly, “Can humans remain human in a world where more and more of our time is spent interacting with machines and technology?” (Schelde, 1993, p. 118).

But one might even argue that these films do not simply address society’s contemporary anxieties toward a relatively new technology. They also reflect an anxiety that pertains to cinema itself, the fear of being replaced by new media, the fear of losing its centrality in the cultural landscape. This idea will be further discussed in the section titled *technoludic film as remediation*.

### ***Technoludic Film As Quotation***

In the last three decades, computer and video games have been featured in countless feature films, TV commercials, game shows, news clips and music videos, all heralding the cultural impact felt by these new marvels of Information Age technology. Today, computers and video games proliferate in popular films. However, not everybody welcomes this intrusion. Novelist and social commentator Sedaris (2000), for instance, sarcastically wrote:

I hate the way [computers] have invaded the movies. I'm not talking about their contribution to the world of special effects. I have nothing against a well-defined mutant or full-scale alien invasion, that's *good* technology. I'm talking about their actual presence *in any given movie*. They have become like horses in a western: They may not be the main focus, but everybody seems to have one. (p. 148)

The increasing pervasiveness of video games in films is a given fact. This phenomenon can be explained in terms of intertextuality. Genette (1997) defined this particular relation as the “effective co-presence of two texts” (p. 12) in the form of quotation, plagiarism, and allusion, where the two texts involved in the relation are the movie (quoting text) and the video game (quoted text).

Unsurprising, the *technoludic* film is actively involved in a whole network of intertexts, cultural meanings, and social discourse. By engaging a complex dialogue video games, the *technoludic* film has created what Kuhn (1990) called “an aesthetic of quotations” (p. 121). As Stam (2000) argued:

Both novel and film have constantly cannibalized other genres and media. . . . But cinema carries this cannibalization to its paroxysm. . . . The cinema becomes a receptacle open to all kinds of literary and pictorial symbolism, to all types of collective representation, to all ideologies, to all aesthetics, and to the infinite play of influences within cinema, within other arts, and with culture

generally. (p. 61)

This section discusses a selected number of visual evocations of video games in films, as an expressive means of depicting and commenting on the language and meaning of the new electronic medium. The movies that display video games in one or more scenes do so for allusive or illustrative purposes.

Though the modes of quotation vary significantly from film to film and an exhaustive analysis would transcend the scope of this study, it is nonetheless possible to identify some recurrent patterns. The following taxonomy is not, by any means, complete. But it represents a first step in analyzing the way cinema quotes video games.

*Video games as metonym of the future.* As mentioned before, the first movie that incorporated a video game in its *mise-en-scène* (i.e., the visual composition of individual shots, which includes camera position and angle, setting, costumes, and lighting, the relation of people and objects as well as the movement within the compositional frame) is *Soylent Green* (1973). Based on Harry Harrison's novel, *Make Room! Make Room!* (1966), the film is set in a fictional, overpopulated New York of 2022, in which pollution creates constant heat waves and food shortages. Whole foods are unavailable except to the very rich and the masses survive on concentrated food proteins, presented in three varieties: Soylent Red, Soylent Yellow, and Soylent Green. Detective Thorn (Charlton Heston) is a harried cop who is investigating the murder of William R. Simonson, the wealthy director of Soylent Corporation, the company that manufactures the synthetic food. His search leads him to discover the horrific origins of Soylent Green, that is cadavers.

In fact, to fight starvation, the government feeds its citizen with green biscuits made out of corpses. In this terrifying scenario, video games are depicted as a pastime for the elite. A slick, fiber-glassed unit of *Computer Space* (1971), the first coin-operated video game ever created—which incidentally bears a striking aesthetic resemblance to Morton Heilig's *Sensorama*—appears in Simonson's apartment. Sheryl, his mistress and female furniture (Leigh Taylor Young), is joyfully playing the game. In a world where strawberry jam costs 150 dollars a jar and electricity is not available to the lower classes, the upscale prostitute spends her time organizing parties and playing video games.

In an early scene, the girl is standing in front of the machine, trying to set a new record. Simonson approaches her and comments joyfully: "Good to hear you laughing."

Sheryl invites her master to join her ("Come on and play"), but he kindly refuses. "Thanks for the toy," she says, to which Simonson replies: "I'm glad it amuses you." The apparently banal but, at the same time, eerie dialogue is concluded by the girl's enthusiastic remark: "I've demolished five stars!" A few moments later, Simonson is brutally executed by a killer. In *Soylent Green*, video games represent technologies of perversion, not unlike the special clinics where technologically-efficient suicides are performed so that the cadavers can be recycled (see also Franklin, 1990).

Even the government-approved suicide ritual is marked by the curse of the hyper-real: As the candidates await their dreadful end, *images* of long-gone scenarios and idyllic landscapes appear on huge TV screens, while relaxing lounge music plays in the background. The awful reality is momentarily attenuated by illusions. The soylent green that people eat in the film can be read as a metaphor of simulation. In fact, soylent green



is a simulacrum of a meal, a surrogate of meat. If video games are a virtual reality, soylent is a virtual, ersatz food.

Dean (1978) suggested that films such as *Soylent Green*, *Silent Running*, and *Logan's Run*—which all deal with themes such as overpopulation, pollution, and the dreadful side-effects of industrialization—can be read as cinematic metaphors of America's long-time tradition of isolationism. In both *Soylent Green* and *Silent Running*, the characters use technology as a way to isolate themselves from other human beings. Thus, the video game machine that appears in *Soylent Green* and the little toy-robots in *Silent Running* perform an analogous function. The video game, just like the robot, embodies the idea of the future, although the idea that a virtual technology can embody something is an oxymoron, because, as Sobchack (2000) argued, "electronic space disembodies" (p. 151). Her comment is echoed by Margaret Morse (1994), who provocatively suggested that, "for couch potatoes, video game addicts, and surrogate travelers of cyberspace alike, an organic body just gets in the way" (p. 157).

Video games as a metonym of the future also recurs in Leonard Nimoy's *Star Trek III: The Search For Spock* (1984). The film features a scene in which a female alien and a human play a holographic dogfight. The scene is intended to show a contrast: Although the setting is ultra-futuristic—the lounge bar of a space station—the virtual airplanes of the game are modeled after WWI models. This creates an almost retro ludic contrast.

In the science fiction cinema of the 1970s, images of future societies that entertain themselves with violent, sadistic, and ultimately deadly games abound. This subgenre

includes films like the aforementioned *Soylent Green* (1973), *Westworld* (1973), *Rollerball* (1975), *Deathrace 2000* (1975), *Futureworld* (1976), and *Deathsport* (1978). Unsurprisingly, some of these movies depict electronic entertainment, mostly in a technophobic manner.

In Richard Heffron's *Futureworld* (1976), for instance, video games are presented as deceptive technologies. The suspenseful *Westworld*'s sequel has overtones of classic sci-fi films like *Invasion of The Body Snatchers* (1956, 1978, 1994) as robot duplicates try to take over humans. Set in a cybernetic theme park, *Futureworld* shows Peter Fonda challenge Blythe Danner to a holographic table-top game of chess. In another scene, the news reporters who eventually discover the conspiracy engage in an electronic boxing fight where the boxers are human-like robots. Later in the movie, the robots rebel against the humans and try to kill them, reinforcing the idea that technology represents a foe rather than a friend. The metonymical representation of video games—signifieds that represent other signifieds such as technology—is also featured in *Airport '77*, an example of the tragedy thriller genre that became extremely popular in the 1970s. Jerry Jameson's movie, which starred Jack Lemmon, Lee Grant, Joseph Cotton, and James Stewart, contains a scene in which two kids are playing a cocktail version of Atari's *Pong Doubles*.

The presence of in-flight video games, which in the mid-1970s represented the most sophisticated gaming technology available, is supposed to reinforce the idea that airplanes are the most advanced, futuristic, and safest means of transportation. The

*Airport* films, however, suggested the idea that technology is unstable, unreliable and ultimately disastrous.

*Blade Runner* (Ridley Scott, 1982) is a cult film that had a considerable and prolonged influence on contemporary culture. Poole (2000) reported that: "One of the production designers on *Blade Runner* said his work was inspired by the cabinet art of, what else, an arcade video game" (p. 76). The movie, set in the fictitious Los Angeles of 2019, features an Atari billboard.

The fact that the company that created the video game industry exited the market in the 1990s makes it a fascinating anachronism. *Blade Runner* centers on the implications of technology. Ryan & Kellner (1990, pp. 62-64) defined Scott's film as the epitome of technophobic cinema. Although Ridley Scott's film does not deal specifically with video games, *Blade Runner* could nonetheless be read as a high-tech metaphor of the popular children's game of hide-and-seek. The entire movie is constructed as a series of cat-and-mouse chases. Based on a short story by Philip K. Dick, *Blade Runner* deals with four androids or replicants who revolt against their manufacturer, the Tyrrell Corporation. Detective Deckard (Harrison Ford) is assigned to find and then retire the replicants, that is, to destroy them. Two of the most fascinating characters in the film are J. P. Sebastian and Tyrrell. The latter is the father of the replicants, the creator of androids that are "more human than human."

Although Sebastian lives in an abandoned building, Tyrrell enjoys an elegant apartment in a pyramidal palace whose design, as Sobchack (1987) noted, resembles a computer chip. J. P. Sebastian is "a painfully shy but gifted genetic engineer afflicted by

a rare aging disease” (Sammon, 1996, p. 140). Sebastian is toy maker. He spends his free time creating stunningly realistic robotic toys “as playthings for the upper strata of 2019’s rigidly defined society, and as mechanical companions to offset his own loneliness” (Sammon, p. 141). He is fixated on automata, clockwork figures, and mechanical soldiers. Sebastian is also suffering from “Methuselah syndrome,” a disease that, like progeria, causes premature aging. In a sense, he went all the way from childhood to old age without ever reaching maturity. Coldwell (1997) further elaborated:

A brilliant detail makes the technical genius Sebastian progeriatic, that is, prematurely aging. Parched with age in its twenties, his body paradoxically blends the young and the chronologically over-developed. He uses his advanced technology to populate his apartment with a child’s super playthings—living dolls. A superb chess player who can give Tyrell competition, he is childlike, psychologically and sexually innocent. (p. 129)

Ironically, the replicants suffer from a similar problem, accelerated decrepitude. Their lifespan is only four years. Both J. P. Sebastian and Tyrell are puppet masters, modern Geppettos: they create sentient, intelligent toys.

The ludic theme is reinforced by the fact that the only time Sebastian and Tyrell meet in the film is to play a match of chess. Incidentally, in *Tron* one of the characters says that the evil computer Master Control Program was initially just “a chess simulation”; in *The Thing*, Ken Russell loses a game of chess against the computer. Sebastian agrees to smuggle the leader of the replicants, Roy (which, interestingly enough, means “king” in French) into Tyrell’s apartment by using a chess deception. Roy tells Sebastian, who has never beaten Tyrell at the game, the moves to win. Surprised and impressed by Sebastian’s dexterity, Tyrell lets him enter and is flabbergasted by the appearance of Roy. The replicant asks his creator for “more life,”

that is additional time. Tyrell tells Roy that “the light that burns twice as bright burns half as long,” and, at that point, the angry replicant observes: “But not to last.”

This is a splendid metaphor for video games themselves. Just like every other commodity, video games enjoy an extremely short lifespan. New platforms are constantly replacing the older ones. Even the most successful video game consoles rarely last longer than five years. In this sense, video game hardware is like every other form of technology that possesses a “built-in obsolescence,” a technologically and strategically planned “expiration date.” As the author of the screenplay Hampton Fancher explained:

The replicant’s four-year lifespan had been deliberately designed into them by Tyrell. . . . That was a conscious decision on my part from the very first scripts; in fact I wanted to show this corporation including the same kind of built-in obsolescence in the androids that auto manufacturers put into their cars. I even had a line that Tyrell says about Roy in my *Dangerous Days* script where he compares him to a Ferrari. A high-strung racing car, built to win, but not to last. . . . So the idea from the beginning was that Tyrell had purposefully built in this breakdown so people would have to buy a new replicant every four years. He did that to keep his commerce running. (Summon, 1996, p. 174)

Just like the replicants, console platforms have a life span of four to five years. Roy is a sophisticated toll with a deadline: His *duree de vie* is comparable to that of a console. Conversely, the PlayStation2 is just like an android: It is more intense than conventional toys and it is able to simulate things that humans could never experience in their lifetime (“*Attack ships on fire off the shoulder of Orion. C-beams glitter in the dark near the Tanhauser Gate. All those moments will be lost in time. Like tears in rain. Time to die*”). The drawback is accelerated decrepitude. The whole scene, which was created by the director himself (Summon, 1996) is replete with symbolism. After the brief dialogue between Roy and Tyrell, the android kills him. He kisses him on the lips

and then brutally crushes his creator's head with his bare hands. He mashes out Tyrell's eyes, as if he did not want him to see his own decay.

***Video games as Metonym of the Past.*** Zemeckis's *Back To The Future II* (1989) narrative revolves around the alternate time-line gimmick that is frequently employed in literary science fiction. In this film, video games perform an antithetical function as compared with *Soylent Green*'s. As mentioned above, in Flescher's movie, video games are presented as advanced technology gadgets that metonymically stood for the future.

In *Back To The Future II*, however, they are used as a symbol of the past. In a scene set in a fictional 2015, the hero Michael J. Fox tries to impress a couple of kids in the "Cafe of the 80's" by giving them a sample of his dexterity at a video game titled *Wild Gunman*, which also appeared in the predecessor. But to them, the game is nothing more than a relic of the past, an obsolete, primitive machine. They harshly comment: "Gee, can you believe it? You need hands to play it!" and they exit the Café of the 80's in disgust. After all, they are living in the 21<sup>st</sup> century: How can 8-bit technology impress someone who habitually rides nuclear-powered skateboards?

***Video games as lethal technology.*** Often, video games are depicted as a deadly form of entertainment. This concept is taken to extremes in *Maximum Overdrive* (1986), Stephen King's debut as a film director. Here, video game machines literally kill humans. After a meteor hits earth, all the electronic devices become self-conscious and start to annihilate their masters. In one scene, an African-American character is electrocuted by a coin-operated game, *Star Castle*. In a classic Bond film, *Never Say Never Again* (1983), the British secret agent, played by Sean Connery, meets Kim

Basinger in front of Atari's *Gravitar*, while the villain, Max Largo (Klaus Maria Brandauer, stands behind a *Centipede* coin-op machine. What follows is an intense, electrifying video game experience. "Are you a man who enjoys games?" the heinous criminal Max Largo asks James Bond. The secret agent diplomatically replies: "Depends who I am playing with." The two play a game of a simulation called *World Domination*, a mix between *Risk* and *Missile Command*, a virtual war game that sends electronic shocks to the loser. Bond almost dies but then, of course, he defeats the evil game designer. Again, video games are depicted as a dangerous, lethal technology.

More electric shocks in Thomas and Moranis's comedy *Strange Brew* (1983). Here, too, video game machines tend to electrocute the players. Located in the cafeteria of a diabolical brewery, the coin-op machine at one point transforms itself into some sort of a visual device, which recorded a murder scene.

Video game as deadly device recurs also in *The Net* (1995). The film revolves around a reclusive freelance software analyst, Angela Bennet (Sandra Bullock), who is inadvertently drawn into a dangerous conspiracy when a client asks her to debug a CD-ROM game, *Wolfenstein 3D*. She is then stalked in a game of cat-and-mouse and becomes ruined by an identity crisis.

In Sayles' *Brother from Another Planet* (1984), one of the characters, Sam, warns another man who is playing an arcade game (*Space Chase* in this case) that video games are dangerous: "I heard that if you play too much those machines they do something to your brain." Although the comment is meant to be sarcastic, it clearly reinforces the negative stereotypes associated with video games.

*Video games as anomie.* In several instances, video games are associated with the ideas of anomie, alienation, and isolation. An early scene of Russ Meyer's *Beneath the Valley of Ultravixens*, for instance, features a woman playing *Pong*, "precisely to indicate her anomie and lack of sexual interest in her partner" (Poole, 2000, p. 74). The very same meaning can be found in Wayne Wang's *Center of the World*. The film revolves around Richard (Peter Sarsgaard), a lonely young Internet entrepreneur, who skips out on his company's big initial public offering and pays a stripper named Florence (Molly Parker) \$10,000 to fly to Las Vegas with him for a few nights of kinky indulgence. As he awaits Florence's sexual performance, he plays video games on his laptop. He looks bored. He then asks her for real sex because he is tired of endless erotic simulations. Absolute emptiness has entered hyper-reality.

In George A. Romero's horror cult classic, *Dawn of The Dead* (1978), video games are employed to express the moral vacuum of a society on the brink of the apocalypse. After sketching the inevitable decline of Western civilization in the streets of Pittsburgh, infested by an extremely contagious plague, Romero puts his heroes in the deserted Monroeville Mall.

In the shopping center, "the Living Dead dodder up escalators, fall into fountains, and seem lulled by the tinkle of musak" (Newman, 1988, p. 200). Though brain-dead, the zombies are instinctively drawn to the mall as a place where they had once spent many happy hours. They have internalized the rituals of consumption. With few human prey around, the zombies' consumerism is manifested in the "childish acquisitiveness with which they cradle now-useless items and their instinctive wish to get into the mall"



(Newman, 1988, p. 200). The heroes are able to get rid of all the zombies inside and fortify the place with the aid of big trucks so that they can live (or, better, survive) a life of surrealistic and simulated consumption. The display of goods and the endless variety of products divert the heroes' goals to the point that they decide to live in the abandoned shopping center instead of trying to rebuild some form of civilization.

When the heroes get into the mall, one of the first things they do is fill a bag with money that comes from a cash register ("*You never know*," Roger says). They toy idly with an abundance of stuff they don't really want or need. They dress up in expensive clothes, play poker with real money, and spread caviar on their crackers, but because nothing is socially relevant any longer, they soon become bored. And they start playing video games: In fact, they find cathartic relief in electronic entertainment as they blast away at imaginary ducks and spaceships in the mall arcade.

The scene features popular coin-operated machines such as *Gun Fight*, *Night Driver*, *Star Trek*, *Duck Shoot*, and Atari's *F-1*. At the end, the consumptive habits of the zombies and the human beings coincide. Humans have become zombies. After all, the compulsive shopper is a zombie itself: While the latter is driven by the need to devour human beings, the former has to haul anything he can irrespective of whether he needs it. Romero clearly associates the video game player with the mindless zombie.

More horrifying images appear in the equally unsettling and claustrophobic remake of *The Thing* (1982) by John Carpenter, a film about an Antarctic outpost terrorized by an alien organism. The film opens with a scene in which the protagonist, Kurt Russell, is playing a game of electronic chess against the computer. As he loses, he

spills his drink in the floppy disk port of the machine. The base also features an *Asteroid Deluxe* (1979) coin-op. In both *Dawn of the Dead* and *The Thing*, video games are not an innocent pastime. Rather, they are a manifestation of utter isolation and apathy.

The depiction of video games as an alienating and dehumanizing form of entertainment also recurs in Tsai Ming-Liang's *Rebels of the Neon God* (1992). The film centers on the lives of two teenagers, Hsiao Kang, a college-bound student, and Ah Tze, a dropout petty thief. The former withdraws from his tutorial course without telling his parents and spends all of his time playing video games in the arcades of Taipei.

The communication between the two boys is minimal: Hsiao Kang barely speaks 10 lines through the whole film—and the empty spaces are filled with the constant blare of video games and rain. The film reflects Tsai's relentless pessimism about the state of human relations in the postmodern urban dystopias of Taiwan in the aftermath of the economic miracle. Here, video games are used as a symbol of the moral vacuum: They represent the perfect pastime for a generation that has no point of reference, where prosperity vies with environmental degradation and people come together and disconnect in a seemingly random fashion. The teenagers wander from one arcade to another in an urban landscape that has no historical or organic markings, only neon-lit overpasses, unmarked highway crossings, and fast-food restaurants serving green drinks in underground shopping malls.

A more ironic approach can be found in a Taiwanese film by Chen Yu-hsun, *Redai yu* (Tropical fish). Here, an unhappy adolescent, full of pent-up frustration about

grades, school bullies, and angry parents, takes refuge in a colorful fantasy world of tropical fish and computer games.

*Phenomenology of the arcade.* Images of teenagers playing in shopping centers and malls abound. As Herz (1997) suggested: “The 1980s video arcade was one of the truly diverse hangouts in teendom. It catered equally to preppies and high school dropouts, geeks and jocks, Chicano kids and rednecks-in-training” (p. 47). Unsurprisingly, “by the end of 1981, the arcade had become a fixture of urban and suburban life and the after-school hangout of choice for millions of teenagers” (p. 50). Video games such as Atari’s *Tempest* and Taito’s *Lunar Rescue* and *Space Encounters* are featured in one of the scenes of a classic high-school comedy of the 1980s, *Fast Times At Ridgemont High* (1982), directed by Amy Heckerling. The film opens and closes with images of video game playing. One of the crucial settings of the movie is the arcade mall, which is depicted as a place that gave teenagers new opportunities for social interaction. Yet in this film, the game player is constantly represented as socially inept. For instance, Sean Penn is a shirtless player, a surfer wannabe who wears jeans, eats pizza during class time, and takes drugs. He spends most of his time in the Ridgemont Mall playing *Pac Man*, *Tempest*, and *Galaxian*.

Another classic comedy of the 1980s, *Airplane* features a scene where two traffic controllers are huddled over a radar screen playing *Basketball* for the Atari 2600: Though clearly comical, the scene reinforces the idea that video game addiction is a social problem that could lead to catastrophe. In *The Survivors* (1983), starring Walter Matthau and Robin Williams, video games are the focus of a conversation between the main

characters. The movie centers on Robin's obsession with guns. Convinced that society is going into a deep decline, he tries to convince Matthau and his daughter, Candace, to join him:

Robin: "Is the air getting better?"

Candace: "That's true."

Robin: "The economy? The Middle East? Arts? Literature? Television? U.S. Presidents? Improving?"

Matthau: "Anyone can nit-pick."

Robin: "Sonny, name one thing that has gotten better in the last 10 years." (no answer)

Robin: "See . . ."

Candace: "Video games!"

Matthau: "Video games, there you are!"

Robin: "All right, I acknowledge that, but you have to admit society eventually is going to deteriorate."

In the 1980s, video games became a staple of sci-fi comedies and parodies, but they often ended up being literally destroyed. For instance, in W. D. Richter's *The Adventures Of Buckaroo Banzai* (1983), John Lithgow smashes a *Buckaroo Banzai* arcade machine.

Often, video games are condemned as a time-wasting activity. This happens, for instance, in Tim Burton's *Mars Attacks!* (1996), a spoof of 1950s alien-invasion movies with bulbous-headed aliens. Here, Pam Grier, who plays a bus driver in Washington DC,

spots her two sons playing a video game in an arcade, some sort of a pinball machine cabinet with two orange pistols attached by wires. She stops the bus, jumps out, and chastises them for wasting their time and money. She reprimands her children and takes them home. In another scene, the kids are playing the home version of shoot-em-up.

*Robocop 2* (1991) features a scene in which the cyborg, whose visual perception modes resemble a video game screen interface, makes his appearance in an arcade. The place, replete with coin-op machines and graffiti, is populated with youngsters. When the cyborg rhetorically asks: "Isn't this a school day?" the teenagers start throwing popcorn at him. The arcade is negatively depicted: It is the drug-dealers headquarter, and it is where the criminals sell a devastating drug called nuke. Most of the drug-dealers are kids who enjoy playing video game. When Robocop enters the arcade, he busts a drug-addict cop. To get a confession from him, he smashes his face against the screen of the video game machine.

More arcade destruction can be found in *Scanners II: The New Order* (1991) and *The Replacement Killers* (1998). Arcades and coin-op machines appear in disparate movies such as Stewart Raffill's *The Philadelphia Experiment* (1984, science fiction, in one scene where the coin-op machines literally explode), Brian De Palma's *Body Double* (1984, thriller), Ivan Reitman's *Ghostbusters* (1984, horror comedy), Joe Dante's *Gremlins* (1984, horror comedy), David Engelbach's *America 3000* (1985, science fiction), Richard Donner's *The Goonies* (1985, action/comedy), Menahem Golan's *Over The Top* (1987, action-drama), Peter Hyams' *Running Scared* (1986, thriller), Sylvester Stallone's *Rocky III* (action/drama), Kevin Smith's *Mallrats* (1995, comedy) and *Chasing*

*Amy* (1997, comedy) and Doug Liman's *Swingers* (1996, comedy). Paul Thomas Anderson's *Magnolia* (1999) makes a symbolic use of a classic game, *Frogger*.

***Typologies of the video game player.*** In a suspiciously high number of films, the game player is not human. He or she is often portrayed as an alien or a robot, whose skills are inhuman. In fact, several movies tend to associate the figure of the game player with that of the alien or the robot. This happens, for example, in *D.A.R.Y.L.* (1985). An acronym for Data Analyzing Robotic Youth Lifeform, *D.A.R.Y.L.* is an android/robot in a nine-year-old kid's body, created by a top secret government project sponsored by the Pentagon, which is trying to create the perfect soldier by cloning robotic technology into a human body. The robot escapes the facility and winds up in an orphanage, where it is discovered that he suffers from partial amnesia. He knows just about everything except where he came from and who his parents are. Daryl is delivered to a foster home by social worker Howie Fox (Steve Ryan), who lives next door to Daryl's new foster parents, Joyce and Andy Richardson (Mary Beth Hurt and Michael McKean). The Richardsons are a childless couple desperately hoping to adopt a child. Daryl also meets the rest of the Fox family, Howie's wife Jane (Colleen Camp), his daughter Sherie Lee (Amy Linker), and son, Turtle (Danny Corkill), who is the same age as Daryl.

Daryl and Turtle's friendship develops quickly through the movie and soon they are inseparable friends. Turtle takes Daryl to his house to play video games, where we find that Daryl can play *Pole Position* unbelievably fast, and quickly breaks Sherie Lee's all-time record. In fact, Daryl has a great affinity for quickly mastering anything involving technology or computers.

A second example is John Sayles' *Brother from Another Planet* (1984), which revolves around the adventures of an alien who comes to earth seeking peace and freedom. Joe Morton, who appears to be a human being except for his three toed-feet, is mute. In one scene set in a bar, a man is complaining to a bartender that the coin-op machine he is playing is apparently broken ("It's fucked," he says. "Internal malfunctioning"). The alien sits at a table without answering the questions from the barman and the other customers ("He's got internal malfunctioning," one sarcastically suggests). When the player's complaining becomes more insistent ("I want my quarter back, this machine is broken"), the alien approaches the game and fixes it just by touching it with his glowing hand. Impressed by his abilities, one of the customers gets him a job as a repairman in the local arcade.

In the sci-fi grotesque comedy, *The Adventures of Buckaroo Banzai Across the 8th Dimension* (1984), John Lithgow is an alien who uses his psychic powers to destroy a video game machine. In a sense, he's the antithesis of Joe, the hero of *Brother from Another Planet*. Even when the video game player is human, he or she is not an average human being. The player either presents some form of abnormality or is connected to abnormality.

This happens, for example, in such horror movies as *The Fury* (1978) and *The Firestarter* (1984). The latter is the film adaptation of a Stephen King novel about a girl with psychic abilities. Government agents kidnap her for observation and, to calm her down, give her access to a Coleco Vision game console. *The Fury* also deals with

teenagers with ESP powers. In both cases, the video game player is somehow unique, peculiar, alienated, and dangerous.

Most video game players in *technoludic* films are hackers. Consider, for instance, *Tron*'s Flynn, *Terminator 2*'s John Connors, the cyberkids of *Hackers*, or August Gorman in *Superman III*. In the latter, August Gorman (Richard Pryor) is a social misfit until he, almost by chance, becomes a computer programmer. He is, of course, a whiz kid who can make the computer do magic, without really understanding why or how. He's a technological shaman who has a mystical ability to connect with the spirits of the computer. He gets a job working for Webster (Gene Hackman), a coffee baron who is trying, in any way possible, to corner the market. Gorman, the computer shaman, is given the opportunity to design a supercomputer that will help the computer baron attain his goal (moreover, in *Superman IV: The Quest For Peace* (1986), video game machines are presented as the villain's favorite pursuit).

Sometimes, the video game player is a psychopath or a violent subject. In *Twilight Zone: The Movie* (1983), Joe Dante contributes a brilliantly designated segment based on Jerome Bixby's "It's a Good Life" that narrates the story of a disturbed 12-year-old who enjoys playing video games (*Tempest* in particular).

The boy possesses the uncommon ability of making his wishes come true. He entraps a surrogate family in a phony cartoon world where everyone is forced to be lovable and happy. Dante pulls off great shocks as the result of Anthony's tantrum are seen, his sister has her mouth wiped away, and Uncle Walt (Kevin McCharty) pulls a towering, fanged, bugs bunny monster from a hat.



Even in the post-modern adaptation of Shakespeare's play, *Titus Andronicus* (1999), video games are depicted as a violent and despicable pastime. The film, which *The New York Times* critic Stephen Holden defined as a "sophisticated video game," revolves around Titus (Anthony Hopkins), having just returned victorious from the war with the Goths. The enemies here are his prisoners of war: the queen of Goths Tamora (Jessica Lange) and a brooding Moor Aaron (Harry J. Lennix). The bulk of both the play and its cinematic adaptation is a vicious circle of revenge, with bodies hacked to pieces and rivers of blood flowing.

The film can be interpreted as a reflection on violence and games. This is rendered visually and narratively by superposing ancient Rome, the 1930s, and the present (creating a dazzling contrast between the Roman aqueducts and Mussolini's government buildings). The director even uses a double framing device (the main action is framed as a play, performed in the Coliseum, which is, in turn, framed as a little boy's violent fantasy, the same little boy who plays with his action figures in the opening shot). In a crucial scene, Tamora's murderous sons, Chiron (Jonathan Rhys Meyers) and Demetrius (Matthew Rhys), are shown in a lair. They are playing video games while loud rock music plays in the background. They are represented as punkish speed-freak sociopaths akin to Stanley Kubrick's droogs in *A Clockwork Orange*. Again, *Titus* explicitly reinforces the association between violence and video games.

In *Terminator 2*, the main character, John Connors (Edward Furlong), is a video game player who steals money to feed his addiction. In an early scene of the movie, John, who wears a camouflage jacket and a black and white Public Enemy t-shirt, hacks

an ATM machine with his Atari portable PDA. He then drives his bike to a local arcade where he plays games such as Sega's *Afterburner* and Atari's *Missile Command*.

The use of a game such as *Missile Command* is not incidental. In this game, the player's goal is to protect the six cities from nuclear missiles that fall from the sky. Similarly, the film's narrative revolves around a nuclear holocaust enacted by a super computer. The player is then attacked by one shape-shifting cyborg (Robert Patrick) sent from the future to kill him, and is rescued by another (Arnold Schwarzenegger). Another interesting case is Danny Boyle's movie adaptation of Garland's *The Beach* (2000). The novel was clearly targeted to a disconnected, video game-crazed generation in search of authenticity in an otherwise world of simulacra. Danny Boyle's movie quite faithfully replicates this theme. The story revolves around Richard (Leonardo Di Caprio), a disaffected young American travelling through Southeast Asia. In Bangkok, he encounters a crazed and suicidal man named Daffy Duck (Robert Carlyle), who leaves him a treasure map to the most beautiful beach in the world. Richard shares it with the nice-looking French strangers in the room next door, Etienne and Françoise (Guillaume Canet and Virginie Ledoyen, respectively).

The three set out to find the island together. They eventually reach it and discover that it is already inhabited by two groups: The first a band of evil Asians who grow marijuana, and the second a "community of travelers," led by the amazon Sal, who have made their own little hippie heaven on the island. The three pilgrims are accepted by the happy and enlightened group of tree-hugging, fish-spearing individuals who have embraced the joys of a simple life. However, the community soon falls prey to lies and

lust. The result is implosion. Worse, the tentative détente between the non-natives and the dope growers falls apart, disaster ensues, and, of course, paradise is lost forever.

*The Beach* is relevant to this discussion because the main character, Richard, is addicted to video games. Although this theme is much more prominent in the novel, it is present in the film as well. Richard is a solipsistic, troubled kid who isolates himself from the community and lives in a world of his own. In a particular scene that occurs later in the film, he literally turns into a virtual character and goes berserk. This transformation is visually rendered with video game-like imagery and text ("Game Over. Try again"). As for the message, both the movie and novel suggest once again that technology has alienated human beings from nature. Their own nature and nature *tout court*. An analogous remediation occurs in *Bio Zombie* (1998). Directed by Wilson Yip, the film is Hong Kong's answer to George Romero's previously discussed *Dawn of The Dead*. The plot revolves around a soft drink tainted with bio-chemicals has the power to turn people into flesh-eating zombies. When two young shopkeepers (Jordan Chang and Sammy Lee) heading to the local mall hit a pedestrian who, unbeknownst to them, is turning into a zombie, they hide him in their trunk. Returning to the shopping center, the zombie escapes and traps many of the shopkeepers inside. At this point, a small group of mall employees must bond together to try and fight their way out. The two youngsters are leading the escape mission since they have experience in killing zombies. That experience, obviously, comes from playing video games such as Sega's *House of the Dead*.

Gregg Araki's *Doom Generation* (1995) is the second of a vitriolic trilogy of teenage apocalypse movies that includes *Totally Fucked Up* (1993) and *Nowhere* (1997). The title itself is a direct reference to a video game, *Doom* (1993), one of the most popular first-person shooters, often condemned for its extreme violence. The film revolves around a trio of loathsome, degenerate youngsters: Jordan (James Duval), his drug-addicted girlfriend, Amy (Rose McGowan), and the enigmatic Xavier (Johnathan Schaech), whom they pick up in Los Angeles.

The film, which has a clear nihilistic edge and offers plenty of video game-like violence, is constructed as a series of repetitive video game levels. Like video game characters, the three youngsters shotgun-blast their way across a wasteland of anonymous motels and convenience stores. In Araki's film, America itself is turned into a gigantic playground. Video games have no inner morals: The video game player is a *uebermensch*, whose moral superiority gives him the right to destroy everything that moves on the screen. The act of killing in a virtual environment becomes symbolic and is deprived of its ethical significance. Similarly, the characters in the film kill an array of storeowners and bystanders without worrying about the consequences. At one point, one of the characters tautologically explains that the reason behind the murders is that "someone ends up dying anyway."

*Doom Generation* explicitly quotes videogames: images from the extremely violent fighting game, *Mortal Kombat*, are juxtaposed with scenes of a fight between Xavier and Brandi (Parker Posey).

The depiction of video games is clearly negative: Araki links them to other symbols of America's depravity and corruption. To paraphrase Oliver Stone's film, they are *natural born players*. In summary, the vast majority of game players portrayed in films display aberrant, violent, and paranoid behavior. Most of these films suggest that video game playing is an inappropriate, if not dangerous, activity.

*Video Games and the myth of the puer aeternus.* Not all depictions of video games in films are negative, however. Video games as a rather innocent pastime or simulated duel can be seen in Frank Perry's post-modern Western, *Rancho Deluxe* (1974), which features a three-minute long scene of a game of *Pong* (Atari, 1972) between Jeff Bridges and Harry Dean Stanton. More *Pong* playing can be seen in European movies such as *The Parallax View* (1974, where a psychologist challenges a monkey), and Richard Lester's thrillers, *Juggernaut* (1974) and *The Hunter Will Get You* (1975). *Juggernaut*, which stars Richard Harris, Omar Sharif, and Anthony Hopkins, includes a scene in which kids on a cruise ship are playing the game. In another Lester thriller, *The Hunter Will Get You* (1975), Jean-Paul Belmondo enjoys a game of Atari's *Tank* in an arcade.

A rare, yet interesting positive portrayal of video games can be found in *Big* (1988). Penny Marshall's comedy deals with a kid who wants to grow up as fast as possible. It is also a quest for digital reveries offered by a Zoltar coin-operated machine. Although the connotation of video games as a typical infantile pastime has been questioned by several studies and surveys, it cannot be denied that they are still perceived as an adolescent activity.

Interestingly, the film opens with the image of a video game, an early text adventure. The camera lingers on the computer screen that displays a few lines of text: "You are standing in the cavern of the evil wizard. All around you are the carcasses of slain ice dwarfs." The player commands the computer to "Melt the Ice Wizard." The computer asks: "What do you want to melt him with?" The kid hesitates because his parents want him to take care of the garbage. The delay causes him to lose the game. The computer's comment follows: "Your hesitancy has cost you dearly. The wizard sensing your apprehension unleashes a fatal blow from the ice scepter. With luck, you will thaw out in several million years." Later on, the kid goes to an amusement park.

There, right in front of the statuesque blond he wants most to impress, he is refused admission for being too short. Dejected, he runs across an old-fashioned fortune-telling machine, which promises to make his wishes come true. He drops a quarter into the slot and tells the genie inside: "I wish I was big." The next morning Josh wakes up in his early thirties as Tom Hanks. Forced to leave home because, quite naturally, his mother doesn't believe his story (she thinks he's a burglar), Josh heads for New York City with his best friend, Billy (Jared Rushton), who installs him in a Times Square flophouse. Later Josh gets a job as a computer specialist at MacMillan Toys. Thanks to his talent, he soon becomes vice president of the company. His ideas are highly appreciated, especially the electronic comic book that changes at every reading. A cross between the Make-Your-Adventure and Gameboy, Josh's invention is a portable video game to be sold for \$7. Josh is able to afford a big attic and fills it with all sort of playthings, including pinball machines.

The whole point of the movie is to show the importance of childhood. Josh (Hanks) eventually learns that he has missed so much by immediately becoming an adult. The movie also suggests that childhood does not end with the end of adolescence or the accumulation of responsibility that comes with increasing age. At the end of the movie, Josh returns to his infantile state and conquers the video game by throwing the thermal pod against the evil wizard.

*Big* is a movie that associates the video game playing with the myth of the puer aeternus. This expression was used by Ovid to indicate the child-god, the “divine youth who is born with the night,” “a god of vegetation and resurrection,” the “god of divine youth.” Among the divinities that are considered to possess the characters of the puer aeternus are Icarus, Hyppolytus, Dionysus, Hyacinth, Narcissus, and Eros. The expression, puer aeternus, applies to certain mythological figures, primarily young male deities, who die in their youth and are usually reborn in another form. The primary trait associated with the puer aeternus is a refusal to grow up, a desire to remain a child forever to avoid all the responsibilities of adulthood. Josh (Tom Hanks) embodies a second character of the puer aeternus, which is “sanctified innocence.” A puer aeternus usually goes against the conventional wisdom of the world, does not operate by the usual standards of profit, and refuses the dictates of material advancement. Nonetheless, he is able to achieve success. This concept finds a perfect exemplification in the movie. Here, the protagonist shows no interest in becoming successful and appears to be completely unsuited for the serious business, yet he becomes financially successful nonetheless.

In Peter Weir's *Fearless* (1993), however, Jeff Bridges openly condemns his son's video game console as garbage, an impediment to maturing, and threatens to throw it away. In the film, Jeff Bridges is Max Klein, an architect who is flying from San Francisco to Houston on a business trip. The plane crash and he is among the few survivors. After the dreadful event, his life, his outlook, and his entire *raison d'être* change. Klein learns to live with a new, surrealistic lease on life. But survival is only the first hurdle. He has to undergo deeply touching psychological turbulence.

He soon realizes that he can no longer reconnect with his own family. His wife, Isabella Rossellini, and his son, Spencer Vrooman, watch in anguished disbelief as he maintains close contact with fellow survivors, including a child (ironically Vrooman's age) whom he saved. Interestingly, the conflict between Klein and his son revolves the kid's passion for video games, which Klein clearly despises. In one scene, Vrooman is playing *Splatterhouse*, an extremely violent game loosely based on the *Friday the 13<sup>th</sup>* horror film series, with a friend. His father salutes him, but at first he does not reply because he is distracted by the game. His friends, meanwhile, encourages him to hit and destroy his virtual adversary. When Klein repeats hello, the kid finally replies with a casual, "Oh, hi! I got to level three" ("Yeah, but then he died," his friend comments). Klein asks where his mom is, but the son does not know, so Klein leaves. In another scene, he shouts to his son that "when you die, you don't get another life," and that video games are a deceptive illusion. The kid, appalled, replies that "it is not real dying, it's only pretend," but Klein just shakes his head.



And when his wife criticizes him for overreacting, he simply says: "I don't want him to grow up being a frightened child in a man's world," which reinforces the idea that video games are misleading, infantile, and potentially dangerous. Moreover, just before the plane crashes, Klein's partner was playing a video game onboard. Klein reprimands him: "You like computers. You spend more time playing with it than producing anything," which reaffirms the idea that since play is not productive it is automatically evil. A few seconds later the plane goes down. Klein's colleague ends up decapitated.

**Conclusion.** Although the examples discussed in this section represent only a sample, it emerges quite clearly that the depiction of video games in film is rarely positive. The visual connection between film and video games lies in the consistent and repetitious use of images that function in the same way from film to film to reinforce the idea that video games are dangerous. In most cases, video games are associated with deviant behavior, isolation, and even madness. They are represented either as a lethal technology or as a time-wasting pastime. This negative portrayal recurs through different genres: science fiction, comedies, and dramas. The cinematic criticism seems to reflect society's persistent fears about video games. As Cunningham (1995) observed:

The three main issues cited in the attacks on computer game-playing are firstly the addictive nature of game-playing, which is thought to hinder children in social interaction; second, the violent content of the games; and third, the gender stereotyping within the games. (p. 217)

Video games are even presented as an inhumane technology: They are popular with aliens (*Brother from Another Planet*) or robots (*D.A.R.Y.L.*). When humans play video games they either lose their mind (*The Beach*) or their moral values (*Dawn of the Dead*). Often, the players are mentally disturbed (*Twilight Zone: The Movie*, *Titus*).

The *technoludic* film projects society's anxieties toward electronic entertainment onto the big screen. The video game screen becomes a metaphor for the misgivings of the present. In other words, the quotation, in most cases, is nothing more than a critique of technology. Recalling Altman's (1999) previously discussed distinction between syntactic and semantic elements of a film genre, it must be said that *technoludic* film, which uses a rather limited range of syntactic and semantic options. Moreover, it has a hybrid nature as it cross-pollinates different genres. As Altman (1999) observed, "that a new genre should be born in an expanding culture hardly provides cause for surprise. More important is the way in which this genre develops out of the coupling of two genres previously thought diametrically opposed" (p. 5). Although most *technoludic* films belong to the science fiction genre, some are comedies or even dramas. The *technoludic* genre requires intergeneric processes to make sense of its modes of representation, while this thesis's approach is mostly intragenerically. This thesis aims at simply providing an initial framework in which such processes can be understood.

Moreover, as Altman pointed out, genres usually require a long, slow, formation period as they evolve a syntax to accompany their semantics. The *technoludic* film is still in its early stages of development. The *technoludic* film presents a set of recognizable semantics, although it does not seem to have a similarly strong syntactic framework. The presence of a video game machine in a film is clearly not sufficient for the movie to be considered *technoludic*. In other words, the *technoludic* film tends to be a parasitical genre, relying on hybrids between its semantics and the syntactic frameworks originally developed elsewhere. Although to date it has hijacked existing syntactic frameworks

from another genres (most notably the science fiction film), in the future it might evolve into something completely different. After all, both films and video games are changing at incredible speed and, if a media convergence is really taking place, the already permeable boundaries between the two media may completely disappear.

### ***Technoludic Film as Adaptation***

In an age of media convergence, content is fluidly moving from one medium to another. Motivated by commercial needs, the adaptation strategy has become more and more prominent in the last few years, and, to a degree, audiences seem to welcome it or even demand it. Unsurprisingly, the contemporary mediascape is saturated with adaptations of any possible sort. There is a conspicuous amount of films based on comic books, novels, TV series, and video games. Conversely, there is an equally impressive number of video games based on comic books, novels, video games, TV series, and films. To use Genette's terminology, this specific adaptation participates in a double intertextuality: one *technoludic* and the other cinematic.

Although this dialectic is clearly two-fold, cinema took this practice to extremes.

As Stam's (2000) argued:

Both novel and film have constantly cannibalized other genres and media. . . . But cinema carries this cannibalization to its paroxysm. . . . The cinema becomes a receptacle open to all kinds of literary and pictorial symbolism, to all types of collective representation, to all ideologies, to all aesthetics, and to the infinite play of influences within cinema, within other arts, and with culture generally. (2000, p. 61)

Superficially, it might appear that adapting a video game to the big screen would be easier than adapting a novel. After all, cinema and video games are multi-track media

that use several codes at once (images, words, texts, music, and sound effects).

Literature, on the other end, is a single-track medium that relies on a verbal code only.

In reality, cinema and literature are much more alike than cinema and video games. In fact, novels and films share a “common fate” (Cohen, 1979), that is, they both tell stories. As Cohen noted: “Narrativity is the most solid median link between novel and cinema, the most pervasive tendency of both verbal and visual languages” (p. 4).

The vast majority of video games, however, don't tell stories. They simply present a challenge or a contest. Video games are pyrotechnic, kaleidoscopic, thrilling forms of *spectacle*. Adapting a game for the film medium often requires the *creation* of a narrative rather than a simply reformatting of an existing one. Since the key issue of adaptation is the compatibility of the texts, the real question becomes: Are films and video games commensurable? Unfortunately, this crucial issue often is neglected both at production and reception levels. Films based on video games are vehemently bashed by the professional critics (either journalists or film reviewers) and video game aficionados.

Although they both condemn the resulting adaptation, their reasons are extremely different. The former lament that the film is a failure because it resembles too closely the source text, i.e., the video game, which, by its own nature, lacks a solid and compelling narrative. The latter criticize the cinematic adaptation because, paradoxically, it does not resemble the video game enough and ends up being just a movie. This dichotomy is exemplified by a few comments on *Lara Croft: Tomb Raider*, one of the most recent game-to-film adaptations. Elvis Mitchell (2001, ¶ 3), *The New York Times* film critic, argued that:

Sitting through the lavish and dumb action spectacular *Lara Croft: Tomb Raider* is about as much fun as watching someone else play a video game. The lavish part comes in the visuals; this movie looks like an 11-year-old American's dream version of Europe.

More vitriolic comments came from *The Tech*, MIT's oldest and largest newspaper. In this review, Bogdan (2001, ¶ 4) wrote that:

As you might expect, the story is pathetic. There is no twist, no tension, and almost no logic. Lara Croft incessantly fights the bad guys, and after a linear, totally predictable stream of events, wins the game in the end. Although at times the plot is reminiscent of the *Indiana Jones* franchise, *Tomb Raider* is so bad that no action sequence can be enjoyed. There is no comedy, no drama, and no emotion. *It is just a video game* [italics added].

In contrast, gamers tend to criticize movie adaptations of video games because they fail to deliver the magic and the spirit of the source text. As Poole (2001, ¶ 2) recently wrote on *Joystick101.org* website:

So far, negative reactions to the film *Tomb Raider* have all reached for the same tired old comparison: It's about as interesting as watching someone play a video game. Actually, this film is nowhere near as interesting as watching someone play a video game. What it is, is a lesson in the black art of transforming video game magic into cinematic garbage.

These comments are valuable also because they disclose two diametrically opposed notions of video games. Most film critics regard video games as banal, trivial products that possess no artistic value. Therefore, a movie with a silly plot, a poor dialogue, and baroque special effects is often compared to a video game; an often quoted example is George Lucas's *Star Wars: Episode One* (Young, 2000). In contemporary popular culture, video games have replaced comics as the lowest cultural artifact, not because comics have finally been recognized as art, but because in the last decades their

cultural influence has drastically shrunk (and one might go as far as suggesting that video games were partially responsible for their demise).

The video game estimator, however, defends the video game with the same fervor and impetus that avid readers manifest when they discuss movie adaptations of their favorite novels. In both cases, the film adaptation is seen as vulgarization and as a simplification. Players accuse filmmakers of betraying the style or the magic of the game to accommodate the tastes of a mainstream public unfamiliar with the original text.

Although the ferocious attacks, to an extent, might be aesthetically justified, they are not useful in understanding the factors involved in the adaptation process. These evaluative approaches inevitably miss the point because they neglect to take into account the idiosyncrasies, powers, and limitations of the two media.

A more constructive approach can be found in Stam (2000). Although he is referring to the dynamics pertaining to the novel-to-film adaptations, his considerations apply to this discussion as well:

One way to look at adaptation is to see it as a matter of a source novel hypotext's being transformed by a complex series of operations: selection, amplification, concretization, actualization, critique, extrapolation, analogization, popularization, and reculturalization. The source novel, in this sense, can be seen as a situated utterance produced in one medium and in one historical context, then transformed into another equally situated utterance that is produced in a different context and in a different medium. The source text forms a dense informational network, a series of verbal cues that the adapting film text can then take up, amplify, ignore, subvert, or transform. (pp. 68-69)

A second useful approach is presented by Kinder (1991). Drawing on Kristeva's notion of intertextuality, the author introduced the category of the supersystem, i.e., a network of intertextuality constructed around a figure or group of pop culture characters

“who are either fictional (like TMNT, the characters from Star Wars, the Super Mario Brothers, the Simpsons, the Muppets, Batman, and Dick Tracy) or ‘real’ (like PeeWee Herman, Elvis Presley, Marilyn Monroe, Madonna, Michael Jackson, the Beatles, and, most recently, the New Kids on the Block” (pp. 122-123). Kinder further elaborated this concept and argued that a supersystem:

Must cut across several modes of image production; must appeal to diverse generations, classes, and ethnic subcultures, who in turn are targeted with diverse strategies; must foster “collectability” through a proliferation of related products; and must undergo a sudden increase in commodification, the success of which reflexively becomes a “media event” that dramatically accelerates the growth curve of the system’s commercial success. (pp. 122-123)

Kinder’s notion of the supersystem is especially useful to approach game-based films because it takes into account many different texts, including video games, and not only novels. It also recognizes the importance of contextual implications such as production issues, the importance of the cast, and the increasing commodification of culture. It cannot be forgotten that these films, mostly Hollywood productions, adhere to the capitalist logic in trying to draw a pre-existing fan base to the cinema.

Moreover, the concept of the supersystem emphasizes the idea that content is a volatile yet consistent cultural product that is available across multiple media channels, and uses each channel to do what it does best rather than redundantly reproducing the same features in each medium. The content is volatile in the sense that it can be easily transformed and modified to appeal to old and new audiences. But it must also be consistent because audiences demand some sort of continuity and coherence. They seek familiar content, but, at the same time, they invoke innovation. To be successful, innovation must respond to the peculiar nature of the different media or in terms of

bringing to the fore different aspects of the common narrative content. So far, Hollywood has failed to achieve its goals: Most cinematic adaptations of video games have been commercial failures (see Table 3, all data refers to the American market). One of the reasons, this thesis argues, is because the two media present fundamental differences. Although film and video games share many formal elements—they are both visual media, that is, technologies of illusion—they present radical differences nonetheless.

The lack of interactivity of the film medium is one. Recalling Bluestone's (1957) comment on the relationship between film and novels—two “overtly compatible” (p. 12) but “secretly hostile” (p. 12) media—it can be said that film and video games appear secretly compatible but, at the same time, overtly hostile. Their compatibility is not only secret but also superficial. Games require active participation. Motion pictures, like novels, require interpretation. As film critic Sinyard (1986) suggested, the art of adapting literature to film concerns “interpretation more than reproduction” (p. 117), thus, a cinematic adaptation can be considered an interpretive reading of the original literary text, a critical essay in which filmmakers adapt the literary materials to their own approach, thereby casting “new light on the original” (Sinyard, 1986, p. 117).

In contrast, game playing does not demand interpretation. It requires such skills as control and competence to master the game control system and navigate through the play space.



A movie based on a video game loses both the unreal visual qualities of its aesthetics and, most importantly, its interactivity. In this regard, Murray (1997) noted that:

The narrative content of these games is thin, and is often imported from other media or supplied by sketchy and stereotypical characters. This lack of story depth makes even popular figures like the Mario brothers or the *Mortal Kombat* fighters impossible to translate into successful movies heroes. (p. 51)

In summary, film and games work accordingly to heterogeneous dynamics. To an extent, the idea of a film adaptation of a video game is an oxymoron, a contradiction in terms. What is the point of transforming an interactive challenge into a viewing experience if not for mere economic interests? To stay true to the source (in this case, the video game), an adaptation should conserve at least some of the interactive features of the original. Although this option is unrealistic and unpractical in most theaters because of technical and economic reasons, it would be possible to craft a home version of a cinematic adaptation of a video game as an interactive DVD. As discussed in Chapter 2, this hybrid medium incarnates several aspects of both media.

Traditional filmmaking, however, has failed to reproduce or emulate the thrills of video games. In the following pages, the process of adaptation will be historically and critically contextualized. In particular, the film adaptations will be discussed in terms of similarity or dissimilarity to their respective source texts.

### **Table 3**

#### ***Game-To-Film Adaptations***

---

Film	Source Text	Genre		Box office	
		Game	Film	Budget	Gross
<i>Super Mario Bros</i> (1993)	<i>Super Mario Bros</i> franchise (Nintendo, 1983).	Platform-adventure	Action-Adventure	\$46m	\$21m
<i>Double Dragon</i> (1993)	<i>Double Dragon</i> franchise (Taito, 1987)	Beat'em up	Action-Adventure	\$20m	\$2.34m
<i>Street Fighter</i> (1994)	<i>Street Fighter</i> franchise (Capcom, 1987)	Beat'em up	Action-Adventure	\$20m	\$33.4m
<i>Future Cops</i> (1994)	<i>Street Fighter</i> franchise (Capcom, 1987)	Beat'em up	Comedy-Action	NA	NA
<i>Mortal Kombat</i> (1995)	<i>Mortal Kombat</i> franchise (Acclaim, 1992)	Beat'em up	Action-Adventure	\$20m	\$70.4m
<i>Mortal Kombat 2: Annihilation</i> (1997)	<i>Mortal Kombat</i> franchise (Acclaim, 1992)	Beat'em up	Action-Adventure	\$30m	\$35.9m
<i>Wing Commander</i> (1999)	<i>Wing Commander</i> franchise (Origin, 1991)	Space-combat simulation	Sci-Fi	\$30m	\$11.5m
<i>Lara Croft: Tomb Raider</i> (2001)	<i>Tomb Raider</i> franchise (Eidos, 1996)	Action-Adventure	Action-Adventure	\$80m	\$136
<i>Final Fantasy: The Spirits Within</i> (2001)	<i>Final Fantasy</i> franchise (Squaresoft, 1987)	Role-playing game	Animated sci-fi epic	\$137m	\$32.1m

*The adaptation game.* The practice of adapting movies into video games almost coincides with the appearance of video games on the market. As previously mentioned, the progenitor is *Deathrace 2000* (Exidy, 1976), an arcade game based on *Deathrace* (1975), a controversial science fiction movie starring Sylvester Stallone. Also, one of the biggest video game franchises of all time, *Donkey Kong* (Nintendo, 1980), was clearly inspired by the movie *King Kong* (1934). More recently, game companies have been trying to synchronize a game's release for the same time as its movie counterpart is released. Although early movie-licensed games presented a narrative and an iconography that resembled the original movies, later titles benefited from improved technology and incorporated digitized film graphics.

The translation of successful video games into movies, however, is a relatively new practice. In fact, the first adaptation, *Super Mario Bros.*, was released in 1993, 22 years after the introduction of the first commercial video game (*Pong*) and more than a decade after the introduction of the game of the same name. The film was not a commercial success. As Rosenberg (1995) wrote: "Disney's \$46 million movie based on Nintendo's *Super Mario Brothers* games met a sudden, spectacular death at the box office."

The movie is based on one of the most popular franchises of all time, *Super Mario Bros.*, one of Nintendo's first groundbreaking hits that helped establish it as the console force to be reckoned with in the early 1980s (Sheff, 1993; Herz, 1997). The first true Mario title, *Mario Bros.*, appeared in the arcades in 1983. In this compelling platform game, the duo must keep the sewers safe from the likes of turtles, crabs, and giant flies.

The game takes place on a non-scrolling screen with platforms on multiple levels and a set of pipes at the top and bottom of the screen. The game eventually evolved into the quintessential scrolling platform known as *Super Mario Bros.*, which became a huge hit both in the arcades and in its many domestic incarnations.

The games, designed by Shigeru Miyamoto, were a success for simple reasons: They allowed the players to explore an almost seemingly infinite world at leisure. Gameplay was easily mastered and addictive. Shigeru Miyamoto's classic introduced all of the now-familiar elements of a *Mario* game world—mushrooms, warp zones, stars, Goombas, Koopa, Princess Toadstool, and Bowser—and basically invented a new genre that dominated consoles for more than a decade. In addition, the game's storyline—which has Mario and Luigi trying to save Princess Daisy—has become a staple of just about every subsequent Mario game.

The cinematic adaptation was produced two years after the introduction of Nintendo's 16-bit console, the Super NES, which featured a new brilliant *Super Mario Bros* game. *Super Mario Bros* is an overblown, effects-laden film that chronicles the convoluted story of the title boys from Brooklyn (Bob Hoskins and Joe Leguizamo), plumber-siblings who go up against the villainous King Koopa (Dennis Hopper), a semi-human dinosaur who instigates the kidnapping of the allegedly paleontologist Daisy (Samantha Mathis). The girl is actually a princess who possesses a magical fragment of a meteorite that 20 million years ago destroyed most of the planet. The catastrophic event forced the giant beasts underground, where they evolved into people similar to humans, except that they are descended from reptiles, not mammals, and live in a parallel universe

ruled by the tyrannical lizard king Koopa. Mario and Luigi are the only hope to save the Earth from invasion. The film has dark, gritty visuals and presents only superficial references to the video game series, like gold coins for money and signs that say “Thwomp Construction Co” that can be understood only by spectators familiar with the game story.

Most film critics condemned the film as a complete failure. Janet Maslin (1993) for instance wrote in *The New York Times* that *Super Mario Bros* doesn't have the “jaunty hop-and-zap spirit of the Nintendo video game from which it takes its inspiration. What it has instead are a weird, jockey science-fiction story, *Batman*-caliber violence and enough computer-generated dinosaurs to get the jump on *Jurassic Park*.” Michael Wilmington added in the *L.A. Times* that “The movie knocks your eyes out, at the same time it dulls the mind's eye. Ultimately, it's one more stop in the arcade, beckoning, waiting to soak up time and money.” Despite the commercial fiasco of *Super Mario Bros*, the game-to-film adaptation genre has quickly grown in size, a phenomenon that can be linked to the increasing popularity of electronic gaming in contemporary culture. Between 1994 and 1997, Hollywood majors produced four film adaptations of popular video games: *Street Fighter*, *Double Dragon*, *Mortal Kombat* and its sequel.

Film critic Desser (2000) labeled this second wave of films, “all overtly derived from cartoons and video games,” (p. 89) as “video/cartoon fantasy” (p. 90) films that constitute a sub-genre of the martial arts genre. In fact, they simulate the nonstop combat structure of the original video games by relying on the conventions of the martial arts genre. Desser went as far as suggesting that video games can be thought of as a possible

reason for the rise in popularity of the martial film genre in the United States, which, in turn, reflects how “Asian culture profoundly impacted American culture” (p. 90). He also argued that “the primary engine of this impact came through the introduction of the Nintendo Entertainment System to the United States in 1985,” (p. 92) and concluded that “the relationship between martial arts and home video would be one of profound mutuality of influence and impact.” The common denominator among *Double Dragon*, *Street Fighter*, and the two *Mortal Kombat* films is that they are all based on a specific video game genre, the beat’em up, also known as fighting games. Herz (1997) provided an interesting definition:

By far the most popular arcade genre of the nineties, fighting games are basically comic books that move, pitting steroids-enhanced combatants against each other in hyperkinetic two-player death matches. Drawing from Hong Kong film choreography and martial arts, fighting games like *Tekken*, *Battle Arena Toshinden*, and *Virtua Fighter* feature airbrushed 3D polygon gladiators, complex signature attacks, and swooping Scorsesian camera angles, all of which require massive computer processing power and graphic flair. For this reason, fighting games have become state-of-the-art show cars of the video game industry, as well as targets of right-wing politicians who deplore their increasing graphic violence. (p. 27)

Conversely, the beat’em up genre can be linked to the rise in popularity of the martial arts film in the 1970s (Bordwell, 2000). For instance, although the game *Street Fighter* is not based on any particular film, it clearly tried to interactively reproduce the frantic pace of such films as Bruce Lee’s *Enter the Dragon* (1973) or Sonny Chiba’s *Street Fighter* (1974).

Just like the video game counterpart, these films rely more on pure action and violence than on plot. As in video games, here the narrative is subordinated to the spectacular action and the acrobatic stunts of the characters.

Cinema has acknowledged the ludic contamination. In the irreverent slapstick comedy/martial arts based-on-comics *City Hunter* (Wong Jing, 1992), the hero Jackie Chan – a confessed video game player - pays a tribute to the video game beat'em up genre. In one scene, he finds himself “knocked into a *Street Fighter II* coin-operated machine, initiating a comic sequence in which . . . [he] imagines his assailants as different digitally generated characters from the video game itself, finally winning the fight in the virtual world as well as in the real one” (Poole, 2000, p. 75). The film stages a Jackie Chan fight scene as a video game and periodically interrupts scenes with a lounge-girls' chorus breathing “Citee Hun-ter” as Jackie pauses to smooth his hair and beam roguishly at the camera” (Bordwell, 2000, pp. 172-173). The interplay between the game and the film is clearly multifaceted.

The second game-to-film adaptation, *Double Dragon* (1993), is based upon an extremely successful arcade game, which spawned numerous sequels on several home systems. *Double Dragon* revolves around two brothers, Billy and Jimmy Lee, who seek to rescue their kidnapped girlfriend Marian, from the clutches of the Black Warriors, the gang of Big Boss Willie. Produced by the Japanese company Technos and distributed by Taito in 1987, the game is a side-scrolling beat-'em-up with two brothers smashing anyone who gets in their way. *Double Dragon* offered a variety of opponents, fighting techniques, and common street paraphernalia and weapons—baseball bats, whips, knives, explosive, oil drums, boxes, and rocks—that could be used, whipped, or smashed over an opponent's head.

The generic members of the Black Warriors gang consisted of four characters, Williams, Roper, Linda, and Abobo. Williams and Roper appeared graphically alike. The former is the generic thug that punches Marian, in the game's introductory scene. Roper is another thug who wears spikes in his shoulders. Linda is a female dominatrix with blond-puffy hair who likes to carry a whip. Interestingly, she's the weakest enemy in the game and doesn't appear often. Abobo is a giant who likes to throw his enemies around. Other adversaries include three bosses: Bolo, Jeff, and Willie. If both players beat the game, a contest will be held to see who wins Marian. The game was a major improvement over *Renegade*, Technos' previous fighting game. It featured all-animated characters and four different stages, replete with a fair share of obstacles and a classic soundtrack by Kazunaka Yamane. The game did not have much spoken dialogues apart from grunts and yells.

*Double Dragon* is remembered as a crucial step in the evolution of the beat'em up genre, because it emphasized the importance of cooperative play rather than the contest formula. The cinematic adaptation, however, can hardly be considered a milestone. The film is set in the imaginative city of New Angeles in 2007, the urban archipelago formed when the Big One crumpled Southern California. In the junky, gang-dominated, post-earthquake metropolis, martial artist brothers Jimmy (Mark Dacascos) and Billy (Scott Wolf) battle evil billionaire Koga Shuko (Robert Patrick) for the possession of a two-part Chinese medallion that grants mystical powers. Shuko possesses one half of the talisman and the two brothers have the other half. The latter join forces with Marian (Alyssa Milano), a blond kick boxer who leads a militia known as The Power Corps. Kick fights



and chase scenes ensue as the trio fights for control of New Angeles and the talisman. The film introduced the theme of mysticism that was absent from the game. In post-modern fashion, the movie scores high on self-referentiality as it displays a vast array of popular culture allusions.

Based on a popular fighting game of the same name, *Street Fighter* (1994) is remembered as another commercial failure. The game, *Street Fighter*, debuted in 1987, but it is only with the sequel, *Street Fighter II* (1991), that the franchise became popular. Created by Yoshiki Okamoto, the game featured an innovative interface that revolutionized the industry. Unlike the programming in the company's earlier *Street Fighter*, the new control mechanism could quickly sense certain types of motions and accurately spit out spectacular moves in response. The game also featured smooth animations that evoked those of the best cartoons.

Moreover, the game was high on customizations: It allowed the players to choose from eight characters—each with different looks and moves—and face off against either the computer or human opponents. *Street Fighter II* exploded in popularity, as prolonged positive word of mouth from established arcade fans caused other game players to leave their homes and check out the revolutionary new thing in arcades. Capcom was overwhelmed, as were arcade owners. *Street Fighter II* became popular enough that gamers and magazines worldwide welcomed it as the greatest game ever made, despite its decidedly skewed appeal towards males and teenagers, with a secondary audience of males older and younger than the 13-19 age bracket. It was not a *Space Invaders* nor a *Pac-Man* that anyone could or would play; *Street Fighter II* was a game that people

learned only with practice, and, once mastered, they continually tested their mastery against others. It captured imaginations and spawned thousands of pages of magazine coverage, as well as home game cartridges, comic books, CDs, action figures, and several sequels. The game brought in hundreds of millions of dollars for its publisher, Capcom, and the sort of publicity, historical revisionism, imitators and detractors that only success can bring. *Street Fighter II* did not create a genre. It defined and popularized one that had its origins in the early 1980s with games such as *Karate Champ*, *Yie Ar Kung Fu*, and the original *Street Fighter*, and it brought new life and energy to arcades and home consoles. *Street Fighter II*'s importance in video game history can hardly be overstated. But the film is forgettable. The plot is ridden with clichés: Dictator M. Bison (Raul Julia) holds Allied Nation relief workers for ransom for \$20 billion and threatens to kill them in 72 hours. Colonel William F. Guile (Jean-Claude Van Damme) leads his troops into battle against him. Chun-Li, Balrog, and E. Honda are a news crew seeking revenge on Bison's hench-villains like Wes Studi as the one-eyed arms dealer Sagat. Andrew Bryniarski as bodyguard Zangief and break dancer Jay Tavare as the preening cage-killer Vega. Ryu and Ken are two low-rent shysters who get caught in the middle between sides. Zangief and Dee Jay kiss up to Bison, who holds Dr. Dhalsim hostage to create Blanka, a monstrous warrior result of genetic experiments. Cammy and T. Hawk second Guile. The film merely mimics the repetitive action of the original game, which, in turn, simulated martial arts fights.

A second, lesser-known cinematic adaptation of *Street Fighter* is *Future Cops* (1993), a science fiction-comedy hybrid directed by Wong Jing. Here a super criminal

escapes to the past in an attempt to kill the judge who gave him the death sentence before the events takes place. He goes back to high school times and attempts to change the course of history. The future cops are also sent back in time to protect the judge and to recapture the criminal and his gang. In the film, both the cops and the criminals are characters out of the arcade game, *Street Fighter II*. Rather than an adaptation, this second film uses the game as a mere source of inspiration. *Street Fighter* was followed by Alliance/New Line Cinema's cinematic translation of the controversial *Mortal Kombat*.

Interestingly, this ultra-violent fighting game's title is a variation on the name for Chang Cheh's old school movie *Crippled Avengers*, which was called *The Return of the 5 Deadly Venoms* and *Mortal Combat* in the US. Introduced in 1992, *Mortal Kombat* combined realistic graphics with mysterious mythical settings. But the reasons behind its stunning success rely more on the fact that the game enticed gamers to learn the numerous secret moves that could be performed. Graphic violence is one of the most evident ingredients of the game: Not only did the virtual combatants spew puddles of virtual blood from each blow, but an announcer summoned the victor to finish or execute his opponent off with spectacularly lethal moves, whose equivalents can be found in the film. Unsurprisingly, the fighting game drew media attention because of its extremely graphic depictions of violence (Kent, 2001). Moreover, a second Chang Cheh's movie, the classic *Five Deadly Venoms*, provided the inspiration for some of the characters, the ninjas Reptile, Sub-Zero, and Scorpion. Also, Ho Sung Pak, who appeared in the climatic fight in *Drunken Master 2*, was a model for some of the game's characters like

Liu Kang. Liu's backstory has him as a member of the White Lotus Society, who were Wong Fei-Hung's nemesis in *Once Upon a Time in China*. It is also important to add that

The role of Johnny Cage was originally supposed to be played by martial arts star (at least he was at the time) Jean-Claude Van Damme, who got his start in American/Hong Kong co-productions such as *Bloodsport* (Cage's outfit in the game is very similar to what Van Damme wore in that movie) and appeared in another video game adaptation, *Street Fighter*. The game's original plot was to have revolved around Van Damme, who enters into the tournament featured in the game to prove that he is a "real" martial artist. After the departure of Van Damme from the game's production, the emphasis was placed on the evil Shang Tsung (played by Ho Sung Pak). Robin Shou, who has appeared in about a dozen Hong Kong movies such as Tiger Cage, played Liu Kang in the US film version of the game and its' less-than-successful sequel. The character of Raiden (the "thunder god") was taken from "Thunder" (played by Honk Kong film alumnus Carter Wong) in John Carpenter's homage to Hong Kong cinematography *Big Trouble in Little China*.

It should be added, however, that although the intense gore was a great way to attract attention, *Mortal Kombat* offered another side that kept people coming back for more: its complex storyline. *Mortal Kombat's* plot was one of the most elaborate ever seen in a beat'em up. Although the first *Mortal Kombat* revolved around a tournament, the sequel centered on a plot to lure Earth's warriors to fight in Kahn's own tournament. This was made explicit by *Mortal Kombat 3*, which focused on an invasion of Earth. In the world of *Mortal Kombat*, reality consists of many planes. Free-roaming sorcerers are

able to travel these planes of reality without the elder gods detecting them. These elder gods exist in the heavens, watching as worlds are created and destroyed, governing them with eons of untold wisdom. Powerful Gods rule the planet. A dead world called the Netherealm is used to contain unwanted spirits. It has been interpreted in many ways, and the inhabitants of Earth refer to it by many names, including Hell, Hades, Gehenna, and Pluto. The Netherealm has had many rulers in the course of its existence, most born within its fiery pits, eventually overthrowing their masters mercilessly. *Mortal Kombat* has transcended the game niche and has become a cultural icon, creating an extremely large fan base. It incarnates all the traits of a super system of texts. Aside from two movies, it has spawned four game sequels, an adventure game, a live-action television show, an animated series, not forgetting countless *Mortal Kombat*-related merchandise items. The film tried to imitate the baroque action and graphics of the original with flamboyant special effects and great martial arts choreography. Moreover, like *Double Dragon*, the film plays a complex game of allusions to the popular culture arena in a typical post-modern fashion.

The action—which takes place in the dark, dank, other-dimensional Outworld—centers on the Order of Light Tournament. The contest pits three humans under the guidance of benevolent Lord Rayden (Christopher Lambert) against a legion of evil adversaries under the yoke of sorcerer Shang Tsung (Cary-Hiroyuki Tagawa). At stake is the very future of humanity. If the Outworld wins the Shaolin Tournament 10 times in a row, it can penetrate into the Realm of Earth and take over. Considering that it been victorious the last nine times, Earth's future looks bleak. Earth's titanic trio is composed

of Liu Kang (Robin Shou), looking to avenge his murdered younger brother; Johnny Cage (Linden Ashby), a martial-arts movie star whose skills are widely doubted; and Sonya Blade, a Special Forces agent (Bridgette Wilson). In terms of characters and plot line, the film stayed faithful to the scriptures designed by the game's creators, artist John Tobias and software designer Ed Boon. *Mortal Kombat* is also the only game-to-movie adaptation so far to spawn a sequel, *Mortal Kombat II: Annihilation* (1997).

The second installment featured even more gore, violence, and a larger body count than the original, but was less commercially successful. *Mortal Kombat II: Annihilation* starts where the previous movie ended. Here, Liu Kang, Sonya Blade, Rayden, Princess Kitana, and Johnny Cage must face the evil emperor, Shao Kahn, and his extermination squad led by Ermac, Motaro, Sheeva, and Rain. Kahn's plan is to merge Earth with Outworld into one realm by resurrecting Kitana's mother, Queen Sindel. After Johnny Cage's death, the warriors flee from Liu Kang's temple. Here, Rayden inform them the only way they can defeat their enemies is to bring peace into Sindel's spirit. They are allowed seven days to do it, otherwise, all of mankind shall be destroyed.

The film failed to impress critics and audiences. As Herz (1997) provocatively argued:

*Mortal Kombat* is not a movie. It doesn't even try to be a movie. It is a ninety-minute arcade session projected onto a large white screen. And if you accept this and just let yourself wallow in the Velveeta, you get to watch a really great video game played by an ace joystick jockey called the director, who knows all the secret strikes and combo moves and skillfully somersaults through progressively more difficult scenes to fight the Big Boss in the end. (p. 141)

Nonetheless, a third episode of *Mortal Kombat* is in pre-production at the time of writing. A second film adaptation of a popular American made video game is *Wing Commander* (1999). The film is a science-fiction space opera modeled after *Star Wars*. The film evolved from the video game, *Wing Commander 3: Heart of the Tiger* (1994), by the series' creator, Chris Roberts, who directed the movie as well. *Wing Commander* marked the first time a game designer became a film director. Always heralded for their intricate plots, the *Wing Commander* games detailed the exploits of a young fighter pilot named Blair, his maniacal sidekick, Maniac, and a host of other Confederation pilots and Admirals who would square off against the feline Kilrathi with their pew-yellow vertical pupils. Limited by technology, the first two games in the series used conventional hand-drawn animation, but full-motion video was introduced in *Wing Commander III*, and its use greatly expanded in *Wing Commander IV*, whose budget was \$10 million just for the intermission scenes. The first *Wing Commander* title was published in 1990. The game was truly cutting edge and required a sophisticated computer to be fully appreciated. *Wing Commander* allowed the players to play the role of a pilot fresh from the academy pitted in a future war against the vicious cat-like aliens, the Kilrathi, in a series of compelling space combat simulations. With *Wing Commander II* touted as an interactive movie, it seemed like a logical transition for *Wing Commander III* to make the leap from animated storytelling to the big-budget full-motion video that featured *Star Wars'* Mark Hamill in the leading role of Christopher Blair. Supporting actors included John Rhys-Davies and Malcolm McDowell. The game spanned four CDs, with the live-action video set against three-dimensional rendered backgrounds for impressive results.

In contrast to the game's sophisticated storyline, the film's plot is extremely schematic: On the outskirts of the galaxy, a series of Earth-spawned colonies have been attacked and destroyed by an alien race of sentient space-bound tigers named the Kilrathi. The war with the Kilrathi has lasted for generations. In a desperate attempt to win, the Terran Confederation prepares to destroy Kilrath. Only one man is qualified for the job, Colonel Christopher Blair who the Kilrathi have dubbed "The Heart of the Tiger." *Wing Commander* has been another major commercial fiasco. The latest film adaptations, namely *Lara Croft: Tomb Raider* (2001) and *Final Fantasy* (2001), present a more attentive approach to the aesthetics of their respective source texts. *Final Fantasy: The Spirits Within* literally embraces the visual aesthetic of games, or at least of cut scenes; *Lara Croft: Tomb Raider*, however, makes an effort to imitate the narrative construction of games.

Crafted by Core Design's programmer Toby Guard, *Tomb Raider* (1996) first appeared on the Sega Saturn, but was later ported to the Sony PlayStation. A three-dimensional action adventure that used a third-person viewpoint, *Tomb Raider* featured a very cinematic plotline. In fact, Poole (2000), used *Tomb Raider* as a paradigmatic example of the ongoing convergence between cinema and video games:

The important aspect of *Tomb Raider* is that the *modus operandi* of its representational style has been borrowed not from painting, but from the cinema: The player's point of view is explicitly defined as that of a "camera," whose movements can be controlled as if the player were a phantom movie director. (p. 133)

The game's story began with a nuclear explosion in Los Alamos, New Mexico which hurled a piece of artifact to the sky where it landed in an undisclosed desert valley.



From a hotel in Calcutta, a character called Larson delivers a message to Lara Croft, the female incarnation of Indiana Jones. Like the Spielberg's character, she demonstrates an archaeological prowess and affinity for antiques. Lara is assigned the task job of finding an artifact called the Scion. The artifact, which has been segmented into three pieces, all of which need to be recovered, supposedly contains unknown powers from Atlantis.

Traversing Peru, Egypt, the Roman Empire, and the lost city of Atlantis, Lara needs to find the three parts of the Scion. At the end of each level, the user is presented with cinematic, non-interactive scenes. The first, located at the conclusion of the Peruvian's trip, Larson tells Lara that Josephine Natla has sent Pierre to find the other 2 pieces of the Scion, disclosing the location, St. Francis' Folly. Lara goes to Natla's headquarters, breaks in and looks for the information on where to get the next piece of the Scion. At this point, the non-interactive scene ends and the proper video ludic action resumes.

Core Design has published several new installments that significantly enhanced *Tomb Raider's* allure and solidified the title's longevity. The video game character soon became a cultural icon, and was featured on the cover of influential newspapers such as *The Financial Times* and magazines like *The Face* (Coupland, 1996). The cinematic adaptation of *Tomb Raider* has been a commercial success. *Lara Croft: Tomb Raider* is a mishmash of the *Indiana Jones* saga and *The Matrix* with some airborne martial arts that Hong Kong cinema popularized. In the film, Lara has to retrieve some ancient artifact that, fitted together during the alignment of the planets (a once every 5,000 years event), will give unprecedented power over time to whoever possesses it. Her

adversaries are a shadowy organization, the Illuminati, which sports vaguely Masonic symbols and is determined to take over the world. There's also a Freudian subplot with Lara haunted by the death of her father (played by Jolie's real father, Jon Voight) years before.

*Tomb Raider* preserves the core focus of game narratives on the movement through spectacular spaces and gives the protagonist a range of moves that are consistent with the actions that she might and does perform in a game. There are moments where she has to solve riddles and enigmas. There are moments when she races and there are moments when she fights that are structured around encounters with ever more powerful opponents building up to the battle with the boss.

The film emulates the bipolar structure that characterizes video games, that is, the dichotomy between cut scenes (non-interactive) and play scenes (interactive). The film also reprises major iconographic gestures and moments from the games. The most interesting aspect of the film is the use it makes of the Croft mansion. In the games, this is the place where we go to rehearse and master the skills needed to play the game. Although in the games this section anticipates the real action, in the film this practice is directly integrated into the narrative, making the Croft's house an integral part of where the story unfolds.

The element here that seemed least like a game is the focus on the father-daughter relationship, that is Lara Croft and her father. However, the film allows only for a passive identification with a character. The video game, however, allows the player to actually become the protagonist. Thus, playing Lara Croft and watching Angelina Jolie

playing Lara Croft are two completely different phenomenological experiences. In conclusion, *Tomb Raider* interweaves a different number of intertexts, ludic (the three-person shooter) and extra ludic (such as *Indiana Jones*' filmic conventions, the action/adventure film), each with its own network of connotations and implications.

For these and other reasons, *Lara Croft: Tomb Raider* also became the highest-grossing film adaptation in cinema history, although the critics did not seem to like it at all. Stables (2001), for instance, wrote that the film "falls somewhere between the absolutely indistinguishable and the dreadful, a shallow popcorn product cynically constructed from a pick-and-mix plundering of other films" (p. 19). In terms of architextuality, a title like *Lara Croft: Tomb Raider* emphasizes the centrality of the protagonist of a video game franchise known simply as *Tomb Raider*. Another example is *Final Fantasy: The Spirits Within*, a title that signals the operational transformations in the adaptation. Rather than a mechanical adaptation of the game, the filmic version uses the source as a mere inspiration, hence the need for a subtitle such as *The Spirits Within* that bears no connection with the game series whatsoever. *Final Fantasy: The Spirits Within* tries to capture the distinctively cinematic look of the game franchise with varying degrees of success. The source text, *Final Fantasy*, was introduced on the Japanese market in 1987 for the Nintendo Entertainment System. The *Final Fantasy* game was a massive success, and each of the nine sequels has been even more successful, achieving a staggering more than 30 million cumulative copies sold.

The plot of the original *Final Fantasy* combines apocalyptic themes with the structure of the role playing game, which unfolds as long, drawn-out epic narratives

involving a band of distinct characters that travel, fight, and plunder as a team” (Herz, 1997, p. 28). The plot centers on a dying Earth and the messianic arrival of four warriors, the Light Warriors, each with an orb, which will renew the world. The game begins with standard fantasy mini-quests: rescue the princess, awaken the sleeping Elf King, placate the blind witch, dethrone an usurping pretender, etc. But soon a much greater threat is discovered. Four Fiends, each an incarnate form of the elements, are behind the Earth’s decay. And behind the Four Fiends lies Chaos, an infernal beast who has twisted time itself to achieve his nefarious ends. The game successfully combines narrative gimmicks such as time travelling with interactive elements like exploration and endless fights.

Additionally, *Final Fantasy* introduced many revolutionary concepts to the console RPG genre. The turn-based battles, with their party of heroes on the right and villains on the left became a staple. The game’s characters are drawn from the mythological archetypes of several cultures.

*Final Fantasy* was released in the United States after the third episode of the saga had been released in Japan. Translated and distributed by Nintendo, the game actually sold more copies in the United States than the original had in Japan. This landmark title practically created the console RPG genre single-handedly. However, the film based on this popular game franchise, was a major commercial fiasco. A science-fiction film directed by Hironobu Sakaguchi, the video game’s creator, *Final Fantasy: The Spirits Within* is only loosely based on the video game. Neither the characters nor the story are based on any existing titles of the saga, thus *Final Fantasy: The Spirits Within* is not an adaptation in a strict sense. There are several animated films based on video games, all

produced in Japan. Among the others: *Street Fighter II: The Animated Movie*, *Battle Arena Toshinden*, *Fatal Fury: One Two Punch*, *Final Fantasy: Legend of the Crystals*, *Fatal Fury 2: The New Battle*, *Sonic the Hedgehog*, and *Tekken*.

These interpretations expanded storytelling and gave many gaming characters a life of their own. *Final Fantasy: The Spirits Within*, however, differs from these productions because it is the first fully *digitally* animated film based on a video game. It features cutting-edge animation technology that purports near photo-realism.

Unsurprisingly, *Final Fantasy: The Spirits Within* works better as a spectacle, rather than as a narrative. In a sense, its narrative and its visuals coincide. The real stars of the film are the special effects. Landon (1992) defined special effects as showstoppers, (p. 69) that is, moments in films in which the narrative freezes and pure spectacle takes over. According to Landon, special effects mark a return to what Gunning called the “cinema of attractions.” *Final Fantasy: The Spirits Within* is another proof that cinema is reinventing itself through the use of the most sophisticated technology available, incidentally, the very same technology that can be found in video games (Negroponte, 1995; Manovich, 2001). The process is twofold: at one level, cinema is certainly moving forward, but, at another, it is moving backward. Cinema’s reinvention is also a comeback. Specifically, cinema is going back to its roots—spectacle and attraction—in order to advance to a new stage. Critics have lamented that Sakaguchi’s film has a weak, banal, and cliché-ridden plot. This is not surprising, as *Final Fantasy: The Spirits Within* is actually a video game masquerading as a movie. As in video games, the story is a mere pretest, a prologue, and a premise for interactive

action. The film is set in the year 2065. Humanity has retreated to the protection of several dozen fortress-like cities under the assault of mysterious phantoms from outer space. Despite being incorporeal, if they come into contact with humans, they absorb their souls. After years of research, the military has developed a huge space cannon, which the commander wants to use to annihilate the phantoms. Opposing him are a young scientist, Aki Ross, and her mentor, Dr. Sid; they are convinced that using the cannon may wound or even kill the Earth's spirit. Instead they advocate collecting the eight spirits to generate a bioetheric wave that will wipe the phantoms off the planet. In her quest for these essential spirits, Aki reconnects with an old beau, a Ben Affleck look-alike Captain Gray (Alec Baldwin). They predictably fall in love. Gray and the team of soldiers under his command (Ving Rhames, Steve Buscemi, and Peri Gilpin provide their voices) are assigned to protect Aki on her mission. They also find themselves at odds with a cranky general (James Woods), who has a vested interest in seeing that the phantom critters get blasted with a highly dangerous weapon called the Zeus Cannon, whose use is opposed by gentle tree-hugger Dr. Sid (Donald Sutherland), who is also Aki's mentor.

Interwoven throughout, is a grand theme about the inner life of the Earth and how it regenerates and nourishes itself with the spirits of all living creatures who have died. In terms of plot, the film uses all the possible conventions of the science-fiction films (there are explicit references to James Cameron's *Aliens* and Paul Verhoeven's *Starship Troopers*). *Final Fantasy: The Spirits Within* does create spectacular spaces, but spaces that are far too cryptic and confusing in their articulation to function as game spaces, for

the most part. And, as for game play, the characters almost never take actions which are successful on any level other than surviving, and not even that, in the end, for many of them. They navigate through space, but they usually fail in what they set out to do and can hardly be said to offer the player much by way of mastery. *Final Fantasy: The Spirits Within* is unquestionably rooted in the traditions of anime, an unmistakably unique genre whose elements have slowly been making inroads into Western culture. It blends hard-edged science fiction with unbridled mysticism and, just like Miyazaki's films, overtly titillates mystical new age environmental consciousness. *Final Fantasy* is the work of a Japanese director and crew, working under the auspices of the Japanese company that has made *Final Fantasy* a successful series of video games. Beebe (2000) suggests that computer-generated films such as *Toy Story* are the forerunners of a new cinematic age of "Posthuman Cinema," which centers on the plights and adventures of a single human subject but that, ironically, does not need a star or "even a narrative" (p. 171). Beebe added that:

The posthuman cinema is about more than just these narrow generic issues: the emergent posthuman form can also accommodate animated toys, barking stiff-lipped military men, and cute-talking pigs. . . . Additionally and perhaps surprisingly, in many of these films there has been a persistence of (or even a recrudescence of) the technophobic narrative of the uneasy sort found in *T2* where high-tech effects punctuate (and complicate) essentially luddite narrative. (p. 172)

*Final Fantasy: The Spirits Within* is a perfect exemplification of Beebe's "Posthuman Cinema." It straddles a significant demarcation between traditional cinematic storytelling, with character development, emotional arc, and a new *technoludic* sensibility, heavily influenced by manga, anime, music videos, and video games. This

sensibility does not seem to provide a highly emotional experience. After all, video games simply establish a navigable environment into which the player inserts himself as a participant, replacing the shell-like protagonist. This world may have sensory and narrative complexity, but it leaves the emotional component, if there is to be one, to the fantasy of the player. *Final Fantasy: The Spirits Within* doesn't fully surrender to this aesthetic, because as a non-interactive movie, it still has to motivate and drive the characters through the story. Nonetheless, it does strongly suggest a new niche in film storytelling, one that, like a video game, requires viewers to project themselves into its world to undergo an emotional journey. In this sense, *Final Fantasy: The Spirits Within* should be regarded as a harbinger of far more than just detailed, realistic computer animation.

**Conclusion.** So far, the film adaptation of video games has been problematic. The source text, that is, the video game, forms a dense informational network, a series of visual cues that the adapting film text can then take up, amplify, emphasize, ignore, subvert, or radically transform. The film adaptations of a video game tend to perform these transformations according to the specific protocols of a distinct medium. However, the vast majority of film adaptations of video games present extremely formulaic narrative elements, banal exposition, and predictable plots. Most of these films reprise the major iconographic gestures and moments from the games, such as the fights of the beat'em up genre (*Mortal Kombat*, *Mortal Kombat II: Annihilation*, *Street Fighter*, and *Double Dragon*), the magic items (*Super Mario Bros*, *Double Dragon*, and *Final Fantasy: The Spirits Within*), and sci-fi scenery (*Wing Commander* and *Final Fantasy:*



*The Spirits Within*). Although it is true that film adaptations of video games should not be interpreted only in terms of fidelity to their respective sources, the narratives of these films are mechanically programmed rather than plotted. In most adaptations, the continuity between film and video games is rather shallow and structurally flawed.

Cinematic adaptations seem to be oriented towards pure diversion, consisting in forms that are immediate and ephemeral in their effect. In this regard, Herz (1997) argued that the similarities between video games and their cinematic adaptations are quite superficial:

Arcade games may be increasingly cinematic, but it is cinema of Hong Kong. In a kung fu flick, it's not important why the characters are poised on a particular roof ledge or who's supposed to be avenged. You just want to see them flying to the air. (p. 140)

According to Darley (2000), these films are representative the new digital culture characterized by "a distinct diminution in concern with meaning-construction at the level of the textual production itself" (p. 4). As a result, the texts generated in this context tend to solicit and engage the spectators "at more immediate and surface levels" (p. 4). It follows that films like *Final Fantasy: The Spirits Within* tend "to play form, style, surface, artifice, spectacle and sensation, and then dilute meaning and discourage intellectual quiescence" (p. 6).

Interestingly, several cinematic adaptations of video games introduced apocalyptic themes that are absent in the source texts. *Super Mario Bros*, *Lara Croft*, *Double Dragon*: they all deal with end-of-the-world motifs. The increasing popularity of video game adaptations represents an interesting phenomenon that, in turn, reflects the pervasiveness of video games in contemporary culture. At the time of writing, 12 new

game-based film projects are in different stages of production: *Resident Evil: Ground Zero*, *Crazy Taxi*, *Soul Calibur*, *Dead or Alive*, *House of the Dead*, *Alice*, *Max Payne*, *Axis*, *Dragon's Lair 3D*, *Duke Nukem: The Movie*, *Myst III: Exile*, *Half-Life* and *Mortal Kombat 3: Conquest*. Andrew (2000) wrote that "the choices of the mode of adaptation and of prototypes suggest a great deal about the cinema's sense of its role and aspirations from decade to decade" (p. 35).

Moreover, cinema storytelling rely on time whereas video games tend to emphasize space. In fact, the pleasure of video game playing often derives from exploring virtual spaces. Jenkins (1997), in particular, talked about video games in terms of gendered play spaces. Films based on video games tend to display self-contained worlds which appear explicitly unrealistic. The lack of a strong or original narrative is somehow counterbalanced with cluttered and chaotic spaces. Video game characters tend to lack psychological depth because they are defined more through their iconography and capacity for action. This allows for an easier identification by the players. But what is perfectly acceptable in a video game, is often considered a flaw in cinema. For example, formulaic characterization in a film is seen as detrimental to its aesthetic quality. In a video game, it is the norm. This confirms that fidelity to the source text should not be considered a valid criterion to judge the quality of an adaptation.

Film adaptations of video game represent a perfect exemplification of Kinder's (1990) notion of the supersystem. According to the scholar, a supersystem "coordinates the growth curves both of its marketable components and of its consumers, assuring young customers that they themselves form the nucleus of their own personal

entertainment system, which, in turn, is positioned within a larger network of popular culture” (p. 125). As Stam (2000) noted, the adaptation process is:

Mediated by a series of filters: studio style, ideological fashion, political constraints, auteurist predilection, charismatic stars, economic advantage or disadvantage, and evolving technology. (pp. 68-69)

It follows that the logic behind the adaptation strategy is purely economic: In most cases, these films simply try to draw a pre-existing fan base to the cinema rather than expanding the cinematic discourse on video games.

This phenomenon can be called *gamexploitation*: film adaptations of video games are the outcome of a carefully planned profit-oriented strategy. This strategy involves at least three different elements: The use of a pre-existing brand recognition (the video game); the casting of a series of famed film stars that appeal to different segments of the audience; the use of spectacular, if not revolutionary special effects. The core target audience is a carefully targeted one, primarily the youngsters who are familiar with the source text.

However, film adaptations of popular video games try to create enough hype to appeal to other audiences as well. As with more traditional blockbusters, the release of these films is accompanied by an array of related merchandise items, which the conglomerate-owned studios are increasingly positioned to fully exploit.

Unfortunately, so far filmmakers have not been able to overcome the fundamental formal differences between the two media and, aside from a few exceptions, the *gamexploitation* has resulted in a commercial and aesthetic failure.

Schwabach (2001) argued that “ultimately, the success or failure of films based on video games has had a little or nothing to do with actors or production costs and everything to do with timing and story” (p. 5). Thus, what video games can give to cinema is not stories, but, rather, techniques and ideas. This explains why films are increasingly remediating the visual style of video games and their inner dynamics, rather than simply translating their thin narratives.

### ***Technoludic Film as Remediation***

Films are increasingly borrowing ideas, motifs, and even techniques of electronic entertainment. To use Bolter’s and Grusin’s term, films are remediating video games, that is, they are incorporating some of the specific traits of electronic entertainment in their visual style and narratives. As Herz (1999, ¶ 2) noted:

Conventional wisdom says that interactive media is becoming more and more cinematic, because the resolution of computer game images is nibbling at the heels of video. But games are developing a distinct grammar of their own. In fact, action movies may be borrowing more from video games than vice versa (witness *The Matrix* and *Run Lola Run*).

In this section of the thesis, the dialectic between cinema and film will be discussed in respect to Bolter and Grusin’s (1999) model of remediation. As previously discussed, the two authors defined remediation as the dynamic interplay between two related processes: immediacy and hypermediacy. Immediacy refers to the state of transparent viewer involvement with and within the media or the text. This phenomenon occurs when the viewer is not aware of the medium, but is drawn into the medium or the text.

Hypermediacy refers to the viewer's awareness of the medium and the process of mediation. Its key component is a certain level of opacity with respect to the viewer's perception of the text or medium. In this second case, the viewer is aware of the medium and the process of mediation. According to the authors, the dialectic between immediacy and hypermediacy is constantly occurring, and it affects both traditional analog media such as film and television, and digital media such as video games and the World Wide Web. The versatility of Bolter and Grusin's remediation model represents both a strength and a weakness. The strength, clearly, is the broad applicability of the concept. The potential weakness is a loss of precision, specificity, and impact in the application of a relatively undifferentiated remediation process in such a generic, sweeping way. It is necessary, therefore, to develop a detailed analysis for a more specific and focused application of remediation. The proposed analysis consists of illustrating how films are overtly or implicitly incorporating video games into their structure. This illustration will be applied to various movies to develop a more specific and detailed outcome from the application of the remediation construct. The modes of remediation can be technical and/or structural. On a technical level, films are appropriating audio-visuals from video games in the form of special effects to increase impact and immediacy. On a structural level, films are referencing, re-fashioning, and re-purposing some of the specific traits of video games for narrative purposes. Some of these specific traits are: the repetitive nature of games, the treatment of time and space, the simulation model, and the use of non-linear narratives. In many cases, the remediation works simultaneously at both levels. In other words, it is both technical (visual style) *and* structural (narrative).

Remediation as a narrative device is at work in films such as *Run Lola Run*, *Groundhog Day*, and *Timecode* (multi-directional narratives); *The Matrix* and *Dark City* (simulated reality); and *Being John Malkovich* (role-playing game). Remediation as a technical strategy is at work in such as films as *The Last Starfighter*, *Tron*, and *Clockers*. Video game imagery is used to evoke futuristic, electronic landscapes. It is as if films literally cut game graphics and pasted them on celluloid. In both cases, the consequences of the remediation process directly or indirectly affect the film's narratives. Thus, remediation is not a neutral process. It is cultural as much as it is technical. This idea will be fully explored in the following pages.

**Multi-directional narratives.** The narratives of such movies as *Run Lola Run* and *Groundhog Day* are clearly multi-directional. They represent an exemplification of Murray's (1997) "multiform story," that is, "a written or dramatic narrative that presents a single situation or plot in multiple versions that would be mutually exclusive in our ordinary experience" (p. 30). Murray found the predecessors of multiform storytelling in some venerable predecessors, i.e., the bardic oral tradition that produced Homer's *Iliad* and *Odyssey*, and Russian folk-tales. More recent examples of the multiform story include high art short stories like Borges' "The Garden of Forking Paths," and "In Dreams Begin Responsibilities" by Delmore Schwartz as well as films like *It's a Wonderful Life*, *Rashomon*, *Groundhog Day*, or *Back to The Future*. Murray argued that although prose or movies can tell these kinds of stories, computer games and hypertext are inherently suited to them, because they do not have a linear narrative. *Run Lola Run* (1998) simultaneously fits Kristeva's notion of intertextuality, Bolter's and Grusin's

model of remediation, and Murray's definition of a multi-form story. The film is a virtual melting pot of many different artistic discourses, with references to animation, music videos, cinema, and video games. Like many video games the film features a multi-directional plotting, a frantic pace, and repeated sequences. In other words, the film is a site of multiple interactions of countless intertexts, some specifically filmic (music videos and animation), others trans-filmic, like video games. The film's originality, paradoxically, lies in the audacity of its quotation, absorption, and remediation of other texts. Written and directed by Tom Tykwer, *Run Lola Run* offers an enchanting balance of pace and narrative. The plot revolves around young Lola (Franka Potente) and her boyfriend Manni (Moritz Bleibtreu). In the space of 20 minutes, she must come up with 100,000 Deutsche marks to pay back a seedy gangster, who will be less than forgiving when he finds out that Manni incompetently forgot it on the U-Bahn (the subway). In a black and white flashback sequence, viewers learn about Manni's ill-fated trip to the Polish border with a shipment of stolen cars. Lola, confronted with one obstacle after another, rides an emotional roller coaster in her high-speed efforts to help the hapless Manni, attempting to extract the cash first from her double-dealing father (appropriately a bank manager), and then by any means necessary.

From that point on, every element in the film becomes a choice point and the filmmaker finds imaginative ways to explore the consequences of each action. The audience is constantly second-guessing, trying to imagine other ways through the maze, other solutions to the puzzles, other ways around the obstacles, and it is constantly aware

of the ticking clock. Very little occurs in the film that could not have occurred in a video game. And, in fact, it leaves the viewer hungry to explore options not taken.

Characterization is simple. *Run Lola Run* remediates video games through the use of gaming conventions and the borrowing of video games' audio-visual trademarks. This strategy of remediation supports the narrative theme of Lola (exploration of choice, chance, and causality) and renders the film an audio-visual *tour-de-force*.

In terms of game conventions, the remediation is already at work at the beginning of the film itself, which opens with two quotes: "We shall not cease from exploration, and the end of all our exploring will be to arrive where we started" by T. S. Eliot and "After the game is before the game," by S. Herberger. They both can be associated with the idea of video games. The former stresses the idea of exploration, which is a trademark of electronic entertainment and digital media in general. Iteration and interaction, in video games, go together. Eliot's quote is even more explicit in linking the movie to the game. The epigraphs are followed by an image of a clock. Time represents a crucial factor in video games. In fact, the player is often required to perform specific tasks in a certain amount of minutes or seconds. What comes next is an animated sequence that shows a ball being kicked in the air. It is worth mentioning that, on a technical level, animation and video games share a high degree of similarity (Manovich, 2001). The credit sequence also remediates animation as it shows Lola running through spirals and dodging all sorts of obstacles, such as clocks, webs, and teeth. She also smashes different targets, such as dogs and production credits. Analogous animated scenes introduce the three segments of the film. Although they are a continuation of the



opening scene, they all slightly differ from each other. In the three versions, Lola confronts a boy and his ferocious dog on the stairs to her apartment.

In the first sequence, the dog merely barks and scares her, and she runs past. In the second, the boy trips Lola, and she limps through the early phases of her subsequent run. In the third, she decisively leaps over the two of them, then turns and terrifies the dog and the boy with her own vicious growl. Both the introductory animations and the three variations are constructed as a video game: The main character has to overcome a series of obstacles by jumping and running. Furthermore, *Run Lola Run*'s narrative premise functions as a set of rules in a video game: Manni's telephone call to Lola sets up all the details of the troubled situation: the characters and their goals, the assets, the goal (100,000 marks), and the time limit (20 minutes). The remediation involves also the treatment of time and space within the movie.

*Run Lola Run* treats the chronological dimension in two ways: one is iconic and the other one is stylistic. Not only a clock is featured in the opening sequence of the film, but a second one forms the basis of the three-way screen splits that set up the conclusions of Lola and Manni's first two encounters with the *game*'s endplay. The other dimension is stylistic. Time is both simulated and experienced with a sense of extreme urgency in the course of the film. Frantic action, quick cutting, and a pulse-pounding soundtrack contribute significantly to the acceleration of the pace, which, in turns emulates the adrenaline-rushed experiences of action video games. The extremely quick rhythm is syncopated with pauses in the forward-moving action brought on by Lola's superhuman screams or by the death of a protagonist. The film centers on the element of the race to

the game. Ironically, the director uses slow motion within the running sequences, which reinforces the idea that cinematic time—just like game time but unlike the chronological real time—is transformable, modifiable, and alterable.

The film also uses space in a very ingenuous way. Lola moves, or rather, runs, into the cinematic space as if she were a video game character. Her only objective is to rescue her boyfriend. Space is not meaningful *per se*: It is subordinated to the goal of the game. At the same time, space is presented as a series of obstacles and challenges that must be overcome in order to progress in the game. A loss of speed might be fatal. As Claudia Mesch (2000) argued:

In *Run Lola Run* Berlin is represented as an idealised space of bodily and psychic mobility where the instantaneous technology of cyberspace is physically realised as a utopia of speed. The setting of *Run Lola Run* is not a playing field but a playing level, to use the parlance of video game technology. (¶ 3)

Thus, the viewer is invited—or better, forced—to partake Lola's mission. He has to navigate the cinematic space with her, both with the compelling immediacy of the cinematic momentum (the running sequences) and with the set of cinematic conventions (that reinforce continuity within the story also by provoking the viewers on an emotional level). In Bolter's and Grusin's model of remediation, this modulation tends to toggle the spectators between being conscious of the mediated framework and just following the story, consciously suspending their disbelief. This dialectic is constantly at work in the course of the film.

*Run Lola Run* also depicts the interplay between choice and chance, which represents a trademark of video games and of games *tout court*. The film narrative revolves around the idea that slightly different choices determine enormously different

outcomes. Lola chooses her father as her vehicle for Manni's salvation. She chooses to reset the game when she does not like the first two results of the game: her death and Manni's death respectively. She applies different strategies (theft, violence, and gambling) to achieve her goals. Her choices also become chance factors in the lives of other characters such as her father, her boyfriend, and her business partner. Moreover, the film director uses rapid camera movements and innovative pauses to explore the theme of cause and effect, and, in doing so, he overtly emulates the video game visual language.

Tykwer also visually contrasts Lola's frantic mobility and her physical and mental capacity for speed with her boyfriend, Manni's, immobility, a marker of his helplessness throughout the film. Manni is trapped in the phone booth as a result of his ineptitude. A spiral store sign close to the phone booth symbolizes Manni's entrapment. Like Princess Daisy in the *Mario Bros* games, all he can do is wait for the arrival of the rescuers. The film reverses the traditional gender relations of the action/adventure game and of damsel-in-distress narratives. Thus, Lola becomes Lara, Lara Croft, the quintessential video game heroine.

As illustrated in the *technoludic* film as commentary section, the use of a female hero in films is becoming commonplace both in films and video games.

But the film's most striking game-like feature is the repetition of the same situation over and over again. Lola's first attempts, which end in tragedy, place her right back where she started. The very same recursive narrative strategy is present in *Groundhog Day* (1993).

In the movie, actor Bill Murray plays Phil, an arrogant, Scroogelike weather forecaster, who spends the night in Punxsutawney, Pennsylvania, where he is to do a broadcast the next day about the annual ritual of the coming out of the groundhog. He wakes up the next morning, does his story, and is annoyed to discover that he is trapped in Punxsutawney for a second night because of a snowstorm that comes in after the groundhog ceremony. When he wakes up in his guesthouse room the next morning, Phil is baffled at the realization that it is the morning of the day before all over again.

Everything that happened to him the previous day—the man trying to start a conversation at the top of the stairs, the old high school acquaintance recognizing him on the street, and the ritual of Groundhog Day—it all happens again. And, once again, because of inclement weather, he is forced to spend the night in Punxsutawney. When he wakes up the next morning, it is the same day as yesterday and the day before, with the same oncoming snowstorm keeping him stuck in town and the same events repeating themselves like a broken record. And so it goes, day after day, as this misanthrope of a human being finds himself trapped in Punxsutawney on groundhog day in what science fiction would refer to as a time loop. If he does nothing different, events will repeat themselves as they were on the original day.

But if he changes his behavior, people will respond to his new actions, opening up all kinds of possibilities for playing with the unfolding of events. Either way, with each new day, he alone remembers what happened in previous editions of the same day. At first Phil responds with bewilderment. Then he despairs and begins to treat life as a game: He risks his life and gorges on food, expressing both his sense of hopelessness and

his growing recognition that, no matter what he does, time will reset itself and he will wake up as if nothing had happened.

As the days pass endlessly into the same day, this half-empty character finally finds a purpose in life: learning everything he can about his female producer, Rita (Andie MacDowell), so he can pretend to be her ideal man and seduce her. When that fails, and his efforts net him slap after slap, day after day, his despair deepens and he begins to spend his days killing himself. He kidnaps the groundhog and drives over a ledge into a quarry; he takes a plugged-in toaster into the bath; and he jumps off a building always waking up whole in the morning. In desperation, he reveals his plight to the female producer and she stays with him, in his room, through the night.

In fact, once again, he wakes up alone on the same day. But, enriched by this experience of intimacy and by the fact that someone actually liked him for who he is, Phil finally figures out a constructive response. So he begins to live his life in the day allotted to him, or, rather, he begins to live the life he never lived before. Instead of allowing circumstances to impose themselves on him, he takes control of circumstances, aided by the fact that he has all the time in the world and the safety of knowing what will happen next.

He begins to take piano lessons from a music teacher who is continually surprised at how proficient he is, since she always believes it is his first lesson. He learns how to be an ice sculptor, which is the perfect art form for him since everything he does will melt away when he wakes up anyway. And he becomes more generous. Then, an encounter with death—an old vagrant dies on this day—has a deep effect on him. At

first, he can't accept the man's death and, in at least one subsequent edition of the day, he tries to be good to the old man, taking him out to eat (for a last meal) and trying, unsuccessfully, to keep him alive. When he stops trying to force death to relent, his final defenses fall away and his compassion for the old man transfers to the living. He begins to use his knowledge of how the day will unfold to help people. Knowing that a child will always fall from a tree at a certain time, he makes it a point to be there and catch the child every time. Knowing that a man will choke on his meal, he is always at a nearby table in the restaurant to save him. Slowly, he goes through a transformation. Having suffered himself, he is able to empathize with other people's suffering. Having been isolated from society, he becomes a local hero in Punxsutawney.

Finally, the female producer falls in love with the good person he has become and she again spends the night (although he falls asleep so, again, there is no sex). They wake up in the morning. She is still there and it is the next day. The film speaks volumes about the potential that each human being has to change their life and the lives of others. *Groundhog Day* does not display any of *Run Lola Run*'s hyper-kinetic visuals or pulse-pounding techno beats. Yet, the two films share a very similar narrative structure.

Like Tykwer's film, *Groundhog Day* clearly remediates the video game mechanics and adopts the same trial-and-error strategy that constitutes a trademark of electronic entertainment. As Murray (1997) argued, "because of this simulation structure, *Groundhog Day*, although it has none of the shoot'em up content of video games, is as much like a video game as a linear film can be" (p. 36).

Phil finds himself in an inexplicable situation, seemingly a plaything of fate, and he is stuck in the same day just like a virtual character is stuck on a game level until he gets it right. Getting it right in a video game requires the player to understand the rules of the game and to perform a series of moves that allow the player to achieve the goals.

Similarly, getting it right for Phil requires a profound, personal transformation of his persona. As soon as he acknowledges his mistakes and accomplishes the necessary corrections, Phil gets closer and closer to the solution of the riddle. In both video games and the film, the process of learning to perform the right moves require the character to die and resurrect several times.

Just like Lola, each time Phil dies, reaches the time limit, or fails to complete the game, he is put right back where he started. In this sense, they are immortal. When he describes her situation to Rita he says: "I've been stabbed, shocked, poisoned, frozen, hung, electrocuted, and burned." Untouched by her amazement, he continues: "Every day I wake up without a scratch on me, not a dent in the fender. I am an immortal!" Later in the film, Phil exclaims: "I'm a God! Well, not *the* God, I think." The film's narrative structure also emulates the activity of video game playing. In fact, the film can be chronologically divided into three phases. The first, which takes place in normal time, corresponds to Murray arriving in the city. At this point he is self-centered and embodies hate of self and others, defense, and constriction. He has not started playing yet. The second and main part of the film takes place in an enchanted timelessness in which the character is doomed to repetition in order to evolve. In this phase, he gradually becomes other-directed, loving and free. Eventually he learns how to play the game rather than

simply being played. In the last part, which has moved back into normal time, Philip evolves into a new person. In a sense, he has conquered the game.

It follows that the film can be read as an analogy of game playing. The video game player is in a condition of real time before starting to play. This corresponds to Phil arriving in Punxsutawney. As soon as the game starts, real time is replaced by a second time, the time of the game world. The game time is cyclical, repetitive and mechanic. Unlike real time, it can be paused and stopped at will. Video game players often tend to forget about the passage of real time, and assume the game time as ontologically significant. This corresponds to the central part of the film, when Phil is stuck in the time loop.

Finally, when the player finishes the game or simply decides to stop playing, he or she goes back to the initial condition of real time. In the film, Phil conquers the game, gets the girl, and exits the time loop. Conventional time is linear. On the contrary, games—and more so video games—are full of diversionary, goal-deferring loops that negate time linearity. Huizinga (1968) argued that play happens in a peculiar chronological dimension, the time apart. *Groundhog Day* is not simply a meditation upon the concept of time. It also simulates electronic time. As Sobchack (2000) argued:

The primary value of electronic temporality is the bit or instant, which . . . can be selected, combined, and instantly replayed and rerun to such a degree that the previous irreversible direction and stream of objective time seems overcome in the creation of a recursive temporal network. On the one hand, the temporal cohesion of history and narrative gives way to the temporal discretion of chronicle and episode, to music videos, to the kinds of narratives that find both causality and intentional agency incomprehensible and comic. On the other hand, temporality is constituted paradoxically as a *homogeneous* experience of *discontinuity* in which the temporal distinctions between objective and subjective experience (marked by the cinematic) disappear and time seems to turn back in



on itself recursively in a structure of equivalence and reversibility. (p. 150)

*Groundhog Day* remediates a second crucial trait of video games, that is, repetition. As Skirrow (1986), observed, “in no other cultural form is repeatability of exactly the same experience gives such explicit values as it is in games” (p.129). In this regard, she spoke of a “fascination of this repetition” (p. 129). Repetition also plays a key role in post-modern theory, where repetition is seen as the only solution to simulation. Baudrillard (1983) affirmed that “to exit from the crisis of representation, you have to lock the real up in pure repetition” (p. 142). Finn (2000, ¶ 4) observed that “like films and television programs, video games usually have definite beginning and end points, but what happens between these points appears, at least superficially, to be dramatically different.” Finn added that:

Regardless of their genre, films and television programs are self-propelling entities; the actions of the characters drive the narrative forward toward some kind of resolution. In the case of a television series, this resolution might only be partial, but at the end of the program’s duration there is still some kind of finality to the narrative process, albeit temporary. Video games, on the other hand, are by their own nature designed for extended, repeated, patterned playing. (¶ 4)

On a narrative level, Phil, like Lola, is like all kinds of heroes who have to face various monsters and obstacles. But here the obstacles unfold from his reaction to his circumstances. The character does not face a series of external dangers, as he grows internally. Instead, once the initial obstacle is created, most of the conflicts come from within him: They are a result of how he responds to life and what he causes life to give back to him.

So, if at first Phil keeps on killing himself, he later starts saving people, getting closer and closer to the solution of the riddle. As previously discussed, in many

*technoludic* films, the game world and the real world are at first presented as separated, but, in the course of the story, they inevitably overlap. But in *Run Lola Run* and *Groundhog Day* the real world (that is, the cinematic, represented reality), is treated as a play space from the very beginning.

Thus, both films can be interpreted as non-interactive video games that the respective players did not choose to play. There is, however, a difference: In *Run Lola Run* the rules of the game are explicit and in *Groundhog Day* they are implicit. It might be useful, at this point, to recall Huizinga's definition (1968) of play:

A voluntary activity or occupation executed with certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy, and the consciousness that is different from ordinary life. (p. 12)

According to Huizinga, play is an activity that has both spatial and chronological constraints. It is also an activity that can always be interrupted, but this does not apply to *Groundhog Day*, because its protagonist, Phil, cannot stop the game once it has started. Phil, however, is conscious that what he is experiencing is drastically different from ordinary life and that the rules of the particular game are absolutely binding.

A second useful approach to the study of games comes from Roger Callois (1967), who defined four categories of games: *alea*, which includes all the games that are based on chance, such as bets and lotteries; *agon*, mainly based on a competition and challenge as players try to beat one another, like in races; *illinx*, which apply to all the games based on the pleasures produced by movement, such as merry-go-rounds or jumping; and *mimicry*, where the player pretends to be part of an alternative reality. According to Callois, role-playing games are an example of mimicry, as the players

assume different identities and pretend to be in other planes of reality. Callois is aware that many games can be included in more than one category, thus the four classifications are not mutually exclusive. Callois introduced a second taxonomy, based on the complexity of the game's rules. He classified games with a very simple set of rules as *paideia*, a Greek word that means school and child. He used the Latin term *ludus* to describe games that have more complex rules. For example, jumping is an example of *paideia*, while chess clearly belongs to the *ludus* category. Based on these classifications, a film like *Run Lola Run* imitates a game which possess the traits of a *ludus*: the protagonist is well aware of the rules (she has 20 minutes to find a certain amount of cash to save her boyfriend and she has a series on restrictions on how to get it).

This particular game presents the characteristics of *alea* (since chance plays such a crucial role, as previously discussed) and *illinx* (as it features a frantic pace, incessant running, and adrenaline-packed urgency). There is also an element of *agon*, as Lola tries to bet the mobsters who will kill Manni if she fails, but this component is less prominent. The game that Phil is playing in *Groundhog Day*, however, cannot be considered an example of *ludus* because its rules and goals are not manifest. It resembles more a *paideia* as Phil keeps on repeating the same actions until he finds a way to solve the puzzle. As Gadamer (1975) observed, "the movement which is play has no goal which brings it to an end; rather it renews itself in constant repetition" (p. 446). On the other end, the game has high levels of *mimicry*. In fact, the timeless middle of the movie presents some of the characteristics of a game world in which Phil can experiment with alternative ways of living and being, assume new identities, and act in ways he would not

normally do. This concept is further explored by *Being John Malkovich* (2000). In both *Run Lola Run* and *Groundhog Day*, play becomes a compulsive repetition of life-and-death performance.

*Groundhog Day* can also be read as a cinematic exemplification of Freud's theory of "repetition compulsion." This theory posits that a man who has not worked through the psychological problems dealing with his sexual impulses for his mother is doomed to constantly re-experience these impulses and the psychic conflicts they generate through various analogies and disguises. Freud argued that certain neurotics tend to repeat certain actions over and over again as a means of dealing with their anxiety. *Groundhog Day* is a cinematic depiction of this drama. Phil himself seems to evolve from a childish stage to a more mature one, when he is finally able to find a female companion, Rita. It might even be argued that video games—and films that remediate video games as well—are so widely appealing because they enable people to reenact and temporarily resolve widely shared psychic conflicts. In conclusion, *Run Lola Run* and *Groundhog Day* are hybrid texts that remediate other media's discourses. The films explicitly borrow metaphors from electronic simulations to frame their action. In many ways, their diegetic structure comes directly from interactive storytelling. In fact, the coexistence of multiple narratives within the same film clearly mimics the structure of the video game.

The game world, by its own nature, in a space without closure, a dimension where the same gestures, situations, and scenes are endlessly repeated, without any clear or definitive closure. A third film that presents a multi-directional narrative is *Timecode* (2000). Mike Figgis's film represents an interesting example of the reciprocal influence

between movies and video games. *Time Code* was shot entirely with digital cameras, hand-held, in real time. Ditching the ordinary cinematic format, Figgis took a new direction: splitting the screen into quarters and showing four separate scenes in each, all of which come together into one intertwining story.

The stories are interrelated and sometimes the characters in separate quadrants cross paths and are seen by more than one camera. In a sense, *Timecode* is four movies at once. Although the use of the split screen as a narrative artifice has been used before in film (*Wicked, Wicked*, for instance or Warhol's *Chelsea Girls* or the suspenseful scenes of Brian De Palma's films, such as *Sisters* and *Carrie*), here it becomes the focus of the narrative itself. This artifice leads to a deep engagement and involvement of the viewer in the story, who is required to constantly shift his focus and attention to follow the story. The vast majority of film critics have not acknowledged that the technique of dividing the screen into four separate windows for narrative purposes has also been extensively used by video game designers since the early 1990s. The first game to incorporate this strategy is *Street Racer* (1994, Ubi Soft), a Nintendo Super NES racing game with an element of fighting action. The quadruple screen division allowed multiple interaction on a single television. Since then, the practice has become commonplace and has been used for action, racing, and first-person shooter games.

Moreover, the film remediates video games on a technical level, as it entirely shot with digital technology. *Timecode* and video games do not simply share a common language. They share a common code. *Timecode*'s plot involves interlocking adulteries told in four parallel stories that begin at 3 p.m. on Nov. 19, 1999, on Sunset Boulevard in

or near Book Soup and the office building on the corner. The film starts with cocaine addict Lauren (Jeanne Tripplehorn), who is in love with Rose (Salma Hayek). Lauren eavesdrops on Rose with a paging device as she has quick sex with an alcoholic ad man (Stellan Skarsgard). Other characters include the ad man's wife (Saffron Burrows), an ad executive (Holly Hunter), a psychologist (Glenn Headly), and others in the entertainment industry. Each of the four characters occupies the attention of one camera at all times: Hathaway in the upper left, Emma in the upper right, Rose in the lower left, and Alex in the lower right. In the course of the film, their lives intersect in the narrative and on screen, as pairs of them appear on two screens at a time, providing two views of the same interaction.

These characters and others are further tied together by calls to one another on their omnipresent cell phones and by no less than three earthquakes. Shortly before the film's conclusion, nearly all the characters gather for a meeting where a pretentious director pitches a film that will be made with four digital cameras recording simultaneously, creating an amusing moment of self-awareness. *Time Code* is riveting because of the absence of cutting and the acting, but mostly because of the four simultaneous images.

The spectator's eyes move rapidly from screen to screen. The spectator can hardly be passive in watching this movie: His or her mind constantly speculates as to how images relate to one another, both on the level of the narrative and theme, for instance, duplicity, synchronicity, and how thoroughly interconnected these representative characters' lives are. The film does not merely present four images and leave the viewer

to shift attention at will. At the aural level, the film privileges one signal over the others, so as to draw your eyes to a corresponding screen. The same happens with multi-player video games. The aural continuity is used to maintain some forms of coherence through the mediated experience.

The film operates a remediation of video games not only on a technical/visual level (the double split-screen) but also at a phenomenological level. In fact, the experience of watching this particular film is similar to video game playing.

The viewer has often the feel of having missed something, despite his or her efforts to take it all in. An analogous experience happens with video games where the action happening on the screen is so intense that the player needs to focus on a few elements only—for instance, enemies and potential dangers—to avoid a visual overload. If he tried to follow all the happenings, he would inevitably fail the game. The game exceeds his ability to process all the information. In both cases, the viewer becomes aware of his or her function as editor rather than simply a spectator. As an editor, the game player and the film viewer must exclude some images to consider others. Reading this particular text is complicated by the fact that it offers more than one narrative path.

The spectator must choose to traverse some parts of the text but not others. *Timecode* simulates the nonlinearity of video games and hyper-texts. The viewer, however, remains a voyeur, rather than a player: he cannot influence the flow of the narrative, but simply admire its complexity and ingenuity.

In conclusion, *Timecode* presents extremely high levels of hypermediacy: Figgis emphasizes fragmentation, indeterminacy, and multiplicity. The film exemplifies Bolter

& Grusin's claim that "the experience of the medium is itself an experience of the real" (1999, p. 71). After all, in daily life, multi-tasking has become a *modus vivendi*.

Necessity rather than an option. How many people sit at computers each day and have multiple windows of the web browser open, some form of instant messenger, email, or video games, giving attention to each in turn? The multi-narratives of films like *Run Lola Run*, *Groundhog Day*, and *Timecode* introduce the spectator to imaginary worlds which can be explored, rather than simply seen. The act of vision here becomes an act of exploration: these films demand repeated visits. Only by coming back to the scene of the crime, can the viewer discover secret paths, get lost in the fictional world, find his way out, or simply play around.

***Reality as Simulation.*** Although films like *The Lawnmower Man* (1991) or *Total Recall* (1993) simply fictionalize a technology that can create artificial environments for whatever ends, *The Matrix* and *Dark City* take direct inspiration from media critics such as Baudrillard to deliver a cinematic discourse on contemporary society. As in Baudrillard's discussion on the simulacrum, these movies assume that their reality as it is commonly known is a mere illusion. It has been replaced by simulations and images that have become ontologically pervasive.

In other words, the world of *The Matrix* is the cinematic equivalent of the postmodern hyper-real. In fact, in the fictional worlds of *The Matrix*, Baudrillard's prophecy has become true: The hyper-real, which "represents a much more advanced phase, in the sense that even this contradiction between the real and the imaginary is effaced" (1983, p. 142), has completely replaced the real. Unsurprisingly, the movie pays



an explicit homage to Baudrillard. In one scene, Neo is shown as he puts his stash of illegal virtual reality programs in a hollowed out edition of his *Simulacra and Simulation*. The chapter in question is "On Nihilism." As in Cronenberg's *eXistenZ*, *The Matrix* toys with the recurrent "it-is-reality-or-is-it-illusion" gimmick and finally gets the audience to the point where it can no longer distinguish between the two. As Brooks (1992) suggested:

For as simulation technology more and more challenges our very notion of 'the real', SF film can be said to enacting and fulfilling the impulse of its documentary drive. . . . More and more, what is possible is erasing past distinctions between the real and the unreal, not just in the semblance of the film, but in the experience of its audience. Always an impulse in SF film, the narrowing of the gap between the depiction of technologically wondrous worlds and the very technological wonders of film production has dramatically accelerated in recent years. (p. 70)

In a sense, *The Matrix* is the quintessential *technoludic* film as the blurring between real life and simulation constitutes its *leitmotiv*. It remediates video games on both technical and structural levels. Its plot revolves around a humble office worker by day and a hacker by night called Thomas Anderson but who is also known as Neo (Keanu Reeves), who is trying to discover the meaning of the mythical Matrix. He is contacted by a group of hacker rebels led by an equally legendary figure, Morpheus (Laurence Fishburne). After being persecuted by a group who appear to be FBI agents, he decides to accept Morpheus's offer to reveal the secret of the Matrix to him in return for joining his underworld group. He suddenly awakens to find himself plugged into a tank along with a multitude of other human specimens in classic Cronenberg's body-horror style. He is picked up and allowed to recover in Morpheus's ship.

At this point, it is revealed that Neo has been living his life in a collective virtual reality construction designed to subjugate his mind. Everyday reality, Neo is told, is nothing more than a computer-generated illusion, a fantastic game-like world in which the right program can transform anyone into an action superhero. The agents representing the oppressors enforce the Matrix's rules and are ever vigilant in their efforts to crush those who are asking too many questions. The builders of the Matrix are not human themselves. Rather, they are artificially intelligent machines.

Morpheus explains to Neo that, in a premise very similar to the *Terminator* movies of the previous decade, most of the human race has been destroyed hundreds of years ago in a war between themselves and the artificial intelligences (AI) they created. The majority of human survivors have been enslaved by the AIs and their bodies turned into biological batteries in gigantic power plants while their minds are kept alive by engaging them in a virtual simulation of the late twentieth century. There is a small human resistance group left who try to disrupt the Matrix by hacking into it. The real world outside the Matrix has been devastated by war and only one underground human city remains, Zion. This city is itself run by a mainframe computer, albeit supposedly for the emancipation of humans.

In fact, the outside world is so bleak and inhospitable—the “desert of the real” as Morpheus describes it—that one of the rebels (Joe Pantoliano) is so fed up that he betrays the others to the agents in return for being plugged back into the Matrix. When negotiating with an agent, he asks to be rewarded for his co-operation with a fairly important position in Matrix society (“like an actor,” he asks. “Whatever you want, Mr.

Reagan,” agrees the Agent). This is a recurrent theme of the *technoludic* film: The players play the game and adopt different roles to escape a depressing reality (see, for instance, *Carver’s Gate*). Both the world of the Matrix and the video games operate almost entirely according to one basic principle: The player’s surrogate self must come into contact with or avoid contact with other images. This is a world that moves as a result of a mock physical causality rather than according to the complex meanings of plot. This simple pattern of operation is able to generate so many possibilities because of the diversity of images and story lines—in other words, because of the richness (or the poverty) of the simulation. The remediation of video games by *The Matrix* is made even more explicit in a scene where Morpheus shows Neo how to fight the malevolent simulator—that is an almost omnipotent computer that controls the world. The way the rebels train is very similar to learning to play a computer game; they work to quicken their mental reflexes and to exercise their strategic and imaginative thought processes.

Several scenes of the *The Matrix* emulate the hyperkinetic action of fighting video games, which in turn took inspiration from the Hong Kong film action genre. Hand to hand fighting is performed with superhumanly precise *Street Fighter*-style kung fu moves and everything else tends to involve loading and aiming an inexhaustible supply of automatic firearms, so many that their virtual bodies are practically encased in weaponry. The protagonist tends to walk and move with the logical deliberation of robots and to execute acrobatic stunts all with a mind numbing clarity of purpose, as if he were a video game character. Neo needs to become absorbed into the dynamics of the Matrix in order to fight it. In other words, he needs to become video game like.

For these reasons, Poole (2000) concluded that, “*the Matrix* contains the most successful translations to date of certain video game paradigms to the celluloid medium” (p. 74). Interestingly enough, now video game makers are taking a direct inspiration from *The Matrix*. Reviewing the game, *Max Payne*, Herold (2001) wrote in *The New York Times*, that: “in the last few years, games have included cinematic animated sequences, but *Max Payne* is the first shooter to integrate those cinematic elements into the game play.” In fact:

The player can initiate brief slow-motion sequences that allow fast aiming at slow-moving targets, an entertaining feature reminiscent of *The Matrix* sequence from *Conker's Bad Fur Day*. When Max fires his sniper rifle, the game follows the bullet in slow motion. In true movie fashion, *Max Payne* begins at the end, with Max standing on the roof of a skyscraper surrounded by police cars. “They were all dead,” he tells us. (¶ 3)

In Alex Proyas' *Dark City* (1998), anxiety about the digital age and its discontents reaches levels of pure paroxysm. Set in a permanently night-bound metropolis, the film centers on a man named Murdoch (Rufus Sewell) who wakes up with amnesia, apparently guilty of a murder, and who goes in search of his own identity.

However, nobody in the city has a memory because it is an enclosed world controlled by the Strangers, a race of pale-faced aliens carrying out an experiment on the human soul. Each midnight, these aliens revise everyone's identity and give the city a radical makeover. *Dark City* operates a remediation of video games at three different levels. The first is technical. The second is visual. The third is narrative. Like *The Matrix* and many other contemporary science fiction films, it heavily relies on computer-generated special effects, which are created by the same computers and with the same techniques used to make video games.

Through the use of digital morphing and warping, the very ground of urban and cinematic space and time is destabilized by digital effects and the effects of the digital. But perhaps more importantly, the film is set in an enclosed world that is morphed into existence every night by a mysterious group of aliens.

This cinematic world in which the main characters navigate and inhabit is comparable to a game world that comes into existence every time the player activates it. Just like the Strangers, the player has the ability to customize the game world and change it accordingly to his desires and goals. Also, the way that the Strangers literally remember the temporality and memory of the human inhabitants who live within the shifting city's quite finite boundaries reflect the ability of the player to create and modify new characters of the game world. Video games provide a realm of virtual action in which players can incarnate different characters in fictional worlds by manipulating image surrogates on the screen. Video games let players experience a sense of transcendence from time and space, and from the roles that players routinely find themselves in, in everyday life. The Strangers are just like video game players in the sense that they are spectators, manipulators of the simulation and participants at the same time. They control the human guinea-pigs in the very same way that the players control the image surrogates that might or might not represent them on the screen, and act in the virtual environment through their surrogate. In their role as spectators and manipulators, both the Strangers and the game players watch and dominate the action.

As Sobchack (2000) poignantly illustrated in her essay "A still point of the turning world. Meta-morphing and meta-stasis" (pp. 131-158), the morphological ground

of the film's cinematic space and time is not only transformed at a deep structural level by digital effects but is also narratively allegorized. In fact, the film remediates both the spatial and chronological traits of video games, which are extremely malleable and fluid. Visually, the process of remodeling the city resembles the creation of buildings and cities in the popular video game, *Sim City* (1987), by Will Wright. In both *Dark City* and *Sim City*, the space is literally and visibly warped, expanded, shrunk, and shifted.

Buildings and streets are created or deleted to create new cityscapes. The city depicted in the movie reflects the fragility and mobility of the game world, which can be profoundly modified at the touch of a button. Moreover, the film remediates the chronological time of video games which, unlike objective time, is fluid and stoppable. In this sense, the communal act of will and wish with which the Strangers effectively daily stop time at the stroke of midnight can be read as an allegory of the way the player stops the game time by pressing a button on his keyboard or joypad. Films like *Dark City*, *Being John Malkovich*, and *The Matrix* paint a picture of a closed world that operates according to precisely defined rules. In these films, cinema is transformed more than ever into an interactive game in which the viewer is no longer asked to engage in a more or less cathartic process of identification, but to participate as fully as possible, as if he or she were a player, rather than simply a spectator. In these scenarios, the simulated world is explicitly created by a ruling class—either aliens or sentient computers—for human deception. Most of these movies contain episodes in which the protagonists are trying to find clues that can tell them whether they are lost in the game world or in the real world.

**Role-playing games.** Spike Jonze's *Being John Malkovich* (1999) uses the multi-player metaphor—which is central in role-playing games, both traditional as in *Dungeons & Dragons* and in its many electronic incarnations—to challenge our perception and our preconceptions on the very idea of identity. The linkage between cinema and videogame has been noted by film critic Jonathan Romney, who wrote that *Being John Malkovich* is “an extended joke about the contemporary dreams of vicariousness and virtuality: the actor's body becomes a living version of the *eXistenZ* computer game devised by David Cronenberg” (2000).

The film is set in Manhattan. Under pressure from his wife Lotte, street-puppeteer Craig Schwartz takes a job as a clerk with LesterCorp., run by Doctor Lester, a company located on the low-ceilinged seventh-and-a-half floor of an office tower. He falls in love with his co-worker Maxine. Craig discovers a hidden door leading to a passage that sucks him into the head of actor John Malkovich, whose life he experiences for 15 minutes before being ejected on to the side of the New Jersey Turnpike. Craig introduces Lotte to being John Malkovich, and while she is inside him, she/Malkovich makes love to Maxine; the two women fall in love, but can only enjoy each other physically when Lotte is in Malkovich. Craig and Maxine start a business charging people to be Malkovich. Eventually, Malkovich rumbles their scam and enters his portal himself, discovering a world where everyone is him. Craig and Lotte struggle for possession of Maxine. Eventually, Craig uses his puppeteering skills to enter Malkovich permanently and turns Malkovich into a world-famous puppeteer; Maxine becomes his lover. Lester explains to Lotte that Malkovich is the latest in a line of conduits used by a

secret society to enjoy eternal life in new bodies. Craig is tricked out of Malkovich; Lester and the other channellers take over Malkovich's body. Years later, Lotte and Maxine are a happy couple with a daughter; Craig is inside their daughter, still in love with Maxine, now his mother. In the film, Malkovich, just like a video game character, becomes a shell that can be inhabited for a while by different players who perform different acts while being him. One player, for example, learns what it is like to be Malkovich ordering towels by phone. Lotte and Maxine use him as a sort of prosthetic love attachment, an animated trysting place; Craig sees him as "a really expensive suit that I enjoy wearing." In this sense, the film remediates the video game ability of granting dreams of vicariousness and virtuality to players. The actor's body becomes a living avatar. The process works both ways: As Craig achieves his dreams by inhabiting the popular icon Malkovich, he simultaneously transforms Malkovich into the star puppeteer he could never be. In a video game, the player can perform actions he could never do in real life and thus become a super hero: But, at the same time, it transforms a simple image onscreen into a powerful entity. As much as the human player inhabits the game character, the game character inhabits the player. It is like a sexual encounter, where the possessor is, to an extent, possessed as well.

The idea of video games as sites for experimenting with different selves has been explored, among others, by Turkle (1995). She investigated the phenomenon of the MUDs (Multi-User Dungeons) or text-based, interactive fictional worlds on the Internet that allow one to try on heterogeneous and often conflicting identities. She argued that these participatory forms of fiction allow the player to discover that people are the result



of many selves, all of which turn out to be fictitious. Drawing on Meyrowitz (1985), Turkle (1995) argued that life itself is a kind of game, a form of theater, and the fiction in stories isn't much different than the fiction in life. In their role as participants, the players experience these image surrogates as an extension, not only of their will, but of their body. In essence, their body image expands to include the image under their control, allowing them to take on a virtual presence in the game, as part of their fictional role. In *Being John Malkovich*, the players take a bodily presence in the game, by assuming the identity of the famous actor. At the same time, because his body is separate from theirs, they can admire it as if he were another person. In conclusion, *Being John Malkovich* remediates a specific convention of video game, that is, role-playing. The film also exemplifies McLuhan's concept that "a game is a machine that gets into action only if the players consent to become puppets for a time" (1964, p. 211).

**Video Game Imagery.** For several decades, Hollywood cinema has been remediating the hyper-kinetic action of video games with the aid of state-of-the-art digital effects. Films like *Tron* (1982) and *The Last Starfighter* (1984) first operated a remediation of video games as they tried to reproduce the fast-paced action and fantasy that can usually be found in arcade games. They also pioneered the incorporation of video game imagery. *Tron* is remembered as one of the first films to use computer graphics extensively as a production tool, smoothing the path for the visual effects vehicles that would follow. *Tron* featured scenes that bore a clear and intended resemblance to the grid battles of the classic games of Atari's *Battlezone* (1981). Moreover, it was the inspiration for a series of games: *Tron Deadly Discs*, *Adventures of Tron*, *Tron Solar Sailer*, and *Maze-a-Tron*.

besides being translated as a coin-op for the arcades. *The Last Starfighter* is also remembered as the first mainstream movie to make an intense use of digital effects, i.e., computer-generated images. According to Sobchack (1987), the use of digital effect in film has produced a deflation of space. This process has resulted in the advent of a new cinematic hyperspace, which is a trademark of the post-futurist science fiction film. Sobchack (p. 283) argued that movies like *Star Wars*, *Tron*, and *The Last Starfighter* “deflate cinematographic space into electronic video game and computer space,” and create a “new deathlessness” that leads to “an intense experience of surface, to euphorically explosive displays. It is hardly a coincidence that the controls of video games are called “joy sticks.” Referring to *Tron* and *The Last Starfighter*, Sobchack suggested that:

The ‘deep’ and indexical space of cinematographic representation is deflated, punctured and punctuated by the superficial and iconic space of electronic simulation. This deflation of deep space, however, is presented not as a loss of dimension, but rather as an excess of surface. The hyperspace of these films is proudly two-dimensional, even in its depiction of three dimensionality. Like ‘superrealism’ in contemporary painting, it hyperbolizes material and surface detail while it schematizes (rather than represents) texture. It, thus, presents itself as ‘more visibile’ than the cinematographic image, less clouded by atmosphere. More real than real, this hyperspace signifies a replication and clarification of the cinematographic image, an objectification of its vision accomplished from a space with no atmosphere, no respiration, no experience of depth or gravity. Indeed, this particular SF mapping of spatial existence in postmodern culture constructs a privileged equivalence between electronic space and ‘outer’ space. Both are spaces we regularly experience yet cannot “inhabit” without technological mediation, without some transformation or mutation of our bodies, without (as Jameson suggests) the growth of new organs’—be they a ‘joystick’, a ‘mouse’, or a spacesuit. (pp. 254-256)

*Electric Dreams* (1984) is another study in the terrifying effects of unchecked technology. The film, directed by Steve Barron, is a fiercely brutal portrayal of the

enslavement of mankind by its own computerized technology. The protagonist, shy and insecure architect Miles Harding (Lenny Von Dohlen) buys a computer to help in his quest to design the perfect earthquake-proof brick. One day, he spills soda on his computer and the short-circuiting effect causes the computer to become self-aware. The sentient computer, Edgar (Bud Cort), has a voice and a will of its own. Both the computer and its owner begin a frantic fight for the affection of Madeline (Virginia Madsen), the female cello player who has just moved in. What is relevant in this context is the fact that film makes an extended use of electronic music, MTV-style editing, and electronic imagery. Video games too: The computer's attack on Miles is visualized with the aid of the images from the popular video game *Pac Man*. The electronic dream becomes a video game nightmare: Miles is chased by a gigantic, hungry yellow monster. But he eventually finds his way out.

As previously noted, *The Lawnmower Man* (1992) operates heterogeneous remediations of video games. For starters, it presents dazzling computer animation sequences. The film opens with Roscoe, a chimp whose brain has been enhanced by the use of virtual reality technology, using a head mounted display (HMD) which improves his perceptual abilities. Thanks to the HMD, the monkey becomes like a cyborg like the *Terminator* or *Robocop* who use similar technologies. The display informs him of the status of the mission (Kill Complete), which resembles a video game onscreen interface. Additionally, it shows video game trademarks such as characters vanishing from the screen when destroyed as if they were virtual icons. In many films, action and combat scenes are disguised as video game simulations. This happens, for instance, in movies

such as *The Ice Pirates* (1983), a post-modern sci-fi comedy, or *Superman III* (1983).

The latter contains a scene in which the Man of Steel is flying over the Grand Canyon.

At this point, the movie reverts to a video game as Superman fends off the guided missiles of an evil genius and racks up points in the process. Interestingly, all the special effects were created by the game company, Atari. Another video game company, GCE, provided the graphics for the 1982 low-budget sci-fi movie, *Android*, which starred Klaus Kinski, an entertaining sci-fi story about an almost-human android who has been working as an assistant to mad scientist Kinski on a remote space station and learns he is about to be put out of commission.

In *Koyaanisqatsi: Life out of Balance* (1982), director Godfrey Reggio used video game imagery with fascinating results. The original documentary, which was accompanied by a musical score by Philip Glass, contained images from *Turbo*, *Pac-Man*, *Q-Bert*, *Defender*, and *Robotron*. As Landon suggested, “the Philip Glass-scored film *Koyaanisqatsi*, computer animation tapes such as *Nothing but Zoom* . . . and many of the music videos shown on MTV may be among the most provocative invocations of science fiction thinking in our time” (1992, p. 113).

An interesting example of a visual remediation that inevitably becomes culturally significant is Spike Lee’s *Clockers*. The film deals with the pressing problems of violence, race relations, and cultural set-ups. It explores the stories of a black community self-destructing under the pressure of drugs and drug-related crimes, and also scrutinizes the way in which the media has altered our collective view of these situations. The film centers on the lives of three drug dealers: Victor, the aging drug boss; Strike, his

spiritually adopted son and number one delivery man; and Tyrone, a young boy who lives too close to the Brooklyn park where they do their business. Lee's critique of the media is hard-hitting, and works on multiple levels. One device he uses to criticize the media directly is his use of external material, such as clips of music videos and video games.

He does not place these clips inside a television screen within the *mise-en-scene*. Instead, he cuts directly to a full-screen clip of the external source. For example, while Strike talks to his brother in a bar before the murder is committed, the television in the background plays music videos, but suddenly Lee cuts to the black and white video itself, with rappers yelling loudly, "Comin' at ya! A shot to the dome!" In another scene, Tyrone plays the virtual reality video game that Strike gave to him, and Lee cuts to that image, full-screen. In this game, "Gangsta," a young black boy stands as a target in a city park. Lee sets up a provocative tension between form and content. The film uses comic book hyper-intensified colors. But these brightly-lit shapes and forms are moving across the screen to express the pain and frustration of this seemingly inescapable social struggle. This contrast may be seen as a sharp criticism of the way in which mass media such as television, gangster movies, and video games glamorize and connect drugs, guns, threats, rap music, baggy clothes, and attitude.

But the most explicit remediation of video game imagery is represented by the two *Toy Story* films. The remediation here works on two levels. *Toy Story* is the first completely computer-animated full-length feature film in the history of the medium. A second, subtler remediation is operating at the level of narrative. Both *Toy Story* films deal with ludic themes. Surprisingly, Herz (1999) wrote that:

The interesting thing about *Toy Story* is that while the film was made into a beautifully rendered Nintendo game (Nintendo, in this case, borrowing from Disney's Jumbo piggybank of character equity), there aren't any videogame products in the movie. (p. 37)

In contrast, one of the most striking scenes in the movie takes place in a futuristic looking arcade called Spaceworld, which is replete with video games such as *Planet Killer*, *Pong*, and *Defender*. In this amazing scene, Buzz and Woody are looking for Andy and hide under a soda container and a burger container from the Pizza Planet fast-food chain. In-depth readings of *Toy Story* as an example of remediation can be found in Bolter & Grusin (1999) and Darley (2000). In the sequel, the video game element is more prominent. The opening sequence of its sequel, *Toy Story 2* (2000), purports to be located inside the PlayStation game based on the film, a parody of *Star Wars*. This represents an interesting example of game-within-movie (or is it vice versa?). Brooks (1992, p.68) distinguished between special effects that are "invisible" ("as is the case with the humans in ape costumes in the dawn of the creation segment in 2001) and those which are "intrusive" or "interruptive" ("so striking that they interrupt the narrative or actually work to undermine it") and concluded that:

One example of the latter phenomenon would be what we might call the techno-sublime scenes of seductively awesome technology that present its appeal even in narratives that are broadly critical of the idea of technology (p. 68).

In films like *Toy Story* or *Final Fantasy: The Spirits Within*, special effects become narrative themselves. They are intrusive to the point that they become invisible. The techno sublime mutates into the *technoludic*. As Gabilondo (2000) argued:

Computer technology has pushed "total cinema" into a new order of reality, the hyper-real, in which the representation of the fantastic does not delegitimize

realism but rather legitimizes it as a stronger form of realism. In short, it is important to acknowledge that, ironically enough, Bazin already foresaw the logic of hyperreality when he suggested: "Every new development added to the cinema must, paradoxically, take it nearer and nearer to its origins. In short cinema has not been invented!" Though computer technology, cinema has pushed its origin back to premodernity, to medieval or older times in which the line between the fantastic and the real was not clearly drawn. (p. 186)

Another film that presents a direct influence from video games—both aesthetically and narratively—is John Carpenter's *Escape from L.A.* (1997). The film's narrative works at many different levels. It is a satire of the science-fiction action genre but, at the same time, exploits it by recycling all its conventions and clichés. Carpenter assembled a postmodern pastiche that combines action/adventure elements with a bizarre gallery of characters and potshots at satirical targets such as plastic surgery, theme parks, agents, and the despotic presidency. A remake/sequel of *Escape from New York* (1981), *Escape from L.A.* opens with a voice-over sequence that closely resembles the introductory video of a game. The prologue prepares the audiences for the visual adventure, upon which they are going to embark. The action takes place in the year 2013, in a post-apocalyptic Los Angeles, leveled by a massive earthquake, cut off from the mainland by a flooded San Fernando Valley, and converted into a prison camp for the nation's immorals and undesirables. This modern inferno is controlled by Cuervo Jones (George Corraface), a Latino revolutionary and an expert in cyber-crimes. A right-wing president (Cliff Robertson), who has moved the capital to his hometown of Lynchburg, VA, rules the United States. His rebellious daughter, Utopia (A.J. Langer), has hijacked Air Force Three and fled to Los Angeles with the precious black box that contains the

codes controlling the globe's energy-transmission satellites (interestingly, in gaming lingo, console devices are also called black boxes).

*Escape from L.A.*'s narrative structure resembles that of a video game. The protagonist, an outlaw macho called Jena Plissken (Kurt Russell), has only 10 hours to complete his mission—that is, recover the black box—before he dies of a virus that he has been infected with as an incentive. *Escape From L.A.* looks like a contest, a spectacle. It uses the sequential scheme of video games: The hero needs to overcome a series of increasingly difficult obstacles, such as surfing on a tsunami wave down Wilshire Boulevard, leaping onto the back of a speeding convertible. Jena also faces a basketball confrontation, a series of gunfights, a motorbike chase, and a handglider flight.

Moreover, the city itself is presented as an arena: The futuristic Los Angeles is divided into a series of areas as if they were levels of a gigantic video game. The hero, also known as Snake (coincidentally, the name of a popular video game character, Solid Snake of the *Metal Gear Solid*'s fame) finds his way through the deadly wilderness with a series of guides, including Pipeline (Peter Fonda), a has-been surfer; Taslima (Valeria Golino), a beautiful but doomed street person; Map-to-the-Stars Eddie (Steve Buscemi), and the exotic Hershe (Pam Grier), a transsexual who once befriended Snake back in Cleveland, where he/she was known as Carjack. All the characters perform the function of the *deus ex machina*, a help-like icon that be accessed any time to solve a riddle or overcome an obstacle. The film also features a scene in which Jena Plissken has been strapped into the chassis of a nuclear-powered mini-sub to make his entry onto the earthquake-ravaged island of Los Angeles. This scene, which benefits from an extensive



use of computer-generated effects—mimics the aesthetics and the gameplay of flight simulators. But rather than simulating simulations, it is genres such as action/adventures and first person shooters that the film imitates.

A case in point is the depiction of a trademark of the genre, that is the selection of the proper weaponry before the mission. Carpenter emphasizes the procedure, caricaturing it and taking it to extremes. The film mimics the video games' visual and functional glorification of weapons, such as machine guns, handguns, knives, missile launchers, and bombs. The film is a computer-generated special-effects tour de force that reaches heights so absurd that there's a giddy delight in the outrage. Just like (played by Arnold Schwarzenegger) in *Total Recall* (1993), Jena Plissken uses holographic devices to fool his adversaries.

Interestingly, the film ends with Jena deliberately using the black box to wipe out all electrical systems in the world via an electromagnetic pulse, indirectly stopping all video games activities as they feed on electricity. The final *game over*.

Asian films also show an increasing level of remediation of video games.

*Bio Zombie* (1998), for instance, presents high levels of hypermediacy. In a sequence, the main characters are profiled as if they were the heroes of a video game: Their images are accompanied by a series of "vital statistics" (energy, stamina, and strength and so forth). In another scene, the characters' actions are complemented by the visualization of typical video game messages such as "missing key," "reload," and "recharge battery."

The racing movie *The Legend of Speed* (1999) is one of the most video game-influenced films to be produced in Hong Kong. The film opens *in media res* with an introduction that it is almost a shot-for-shot remake of *Ridge Racer's* (Namco) opening cinema sequence. The film's races also use the "lens flare" special effect, that is, the "trails" coming off the headlights, now commonly used by many newer racing games. The movie presents a video game duel; after Ekin's girlfriend (Kelly Lam) is dissed by a local punk who cuts ahead of her to get a turn on *Dance Dance Revolution*. Ekin challenges the gang to a match on the racing game *NSX*. *The Legend of Speed* remediates video games both in its *mise-en-scene* and in its visual style.

**Conclusion.** The *technoludic* film as remediation is mapping out a new cartography within cinema. Movies are remediating not only the visual imagery of video games in the form of computer-generated special effects, but also some of the crucial traits of their narratives. The result is a new generation of movies that present multi-narratives, depict role-playing activities, and simulate video games. What is most striking is the coherence of the realm these films represent and their rigorous and deliberately delimited character. They paint a picture of a closed world that operates according to precisely defined rules. In these films, cinema is transformed more than ever into an interactive game, where the viewer is no longer asked to engage in a more or less cathartic process of identification, but to participate as fully as possible. Films are becoming like puzzle games that invoke a solution rather than interpretation. They are no longer movies. They are games that want to be played.

## CHAPTER 5

### SUMMARY AND CONCLUSIONS

This thesis explored the dialectic between video games and film. It analyzed how video games have been depicted, represented, and incorporated in feature-length, commercial movies. The task has been accomplished by viewing, studying and dissecting a selection of 53 films covering the period from 1973 to 2001. These texts have been examined with respect to structuralist analysis, film genre analysis, the model of remediation, and semiotics.

The dialectic in question has been recognized as a dynamic process in which one proposition, the film, is matched against another, the video game, to bring a third combinatory proposition into being. Although this proposition incorporates elements of both terms, it is something new altogether.

The *technoludic* film is a new film genre that synthesizes some of the elements of both cinema and video games. The neologism is the combination of two words: technology and ludus, a Latin word for play. The term *technoludism* (Bittanti, 1999) refers to the technologies of play, most notably video games. Thus, the *technoludic* film is a manifestation of *technoludism*.

The research analyzed how film depicts video games and identified different modes, functions, and meanings of this representation. Specifically, it identified and described four possible modes of cinematic incorporations of video games: commentary, quotation, remediation, and adaptation.

In the *technoludic* film as commentary and quotation, the source text, i.e., the video game, is subordinated to the film. In both cases, cinema operates as a discourse on video games and makes full use of its language to critique the other medium. In

this case, the film's dependence to a larger network of cultural texts is implicit. Here, the *technoludic* film comments on video games, subsuming and grappling with the fascination and fears brought on by this relatively new technology. Thus, the film becomes a screen or a mirror upon which society projects and re-enacts through myth-narratives its deepest anxieties, forbidden desires, escapism from the self, the body, and ultimately, from reality tout court. Moreover, the movies that belong to these two categories not only reflect social trends and attitudes towards video games, but they are also active producers of ideologies in relation to technology as a whole.

In contrast, in the case of remediation and adaptation, the *technoludic* film is subordinated to the video game. Here, the film's dependence on a larger network of cultural texts is explicit. In the former, film borrows the visual style and narrative strategy of video games. In the latter, it works as a spin-off of an already established franchise. In both cases, the film's language, function, and content are strictly dependent on a secondary text, e.g., the video game. These two categories are the product of a new electronic lifestyle. The *technoludic* film as remediation is the outcome of the impressive advances in computer animation and virtual reality technologies. Films that remediate video games become a spectacle, an attraction, and a ludic text, both in their aesthetics and in their narrative structure. Cosmetically, they present animations that clearly resemble, deliberately imitate, or directly appropriate those of video games.

Moreover, film directors are increasingly borrowing video game conventions to tell their stories. They remediate the diegetic trademarks of video games. This happens, for instance, for films that present multi-narratives and reject the medium's traditional linearity. Other films use the role-playing metaphor to deliver original and

innovative plots. Cinema is also increasingly using video games as a source text rather than a mere theme. Hollywood is producing more and more translations of popular video games. However, the process of adapting a video game to the big screen, in most cases, has been problematic.

By using conceptual tools such as structuralism and the model of binary oppositions, the researcher identified the recurrent themes of the *technoludic* film. The lack of epistemological certainty stands out as a quintessential mark of the genre, along with variants such as the loss of control, the loss of identity, the loss of boundaries between real and simulation, constant hybridization, fragmentation, and disintegration. In fact, in many of the films, the characters are unable to distinguish between fact and fiction, reality and simulation. A recurrent feature of the *technoludic* film is the cinematic figure of the avatar, the player's alter ego. A hybrid character oscillating between two dimensions, the game world and the real world, the avatar is a technologically charged *doppelgänger*, formed through dynamic interfaces with the computer. The avatar appears to be tailored for an era of ambivalence, slippage, and technological confusion.

It has also emerged that the most prominent themes of *technoludic* films are crucial tropes of postmodernism. These films, harrowing parables of techno-related horror, are filled with synthetic identities, lethal games, and fantasmatic landscapes. Here, postmodernism is combined with technophobic anxiety: Most films, in fact, mandate escape from technology and the video game world as the only means of holding on to one's humanity.

Perhaps, the continuing narrative preoccupation with video games as a gateway to oblivion confirms that, even 30 years after their introduction, they are still

perceived as a problematic, unsettling technology. Or perhaps, cinema's incorporation of the visuals and narratives of video games is related to its fear of being supplanted by the new electronic media.

Many of the narratives of the *technoludic* film revolve around virtual characters trying to replace human beings. This can be read as a metaphor of cinema's own fear of being displaced by other technologies of leisure such as video games, Internet, cable, and satellite television.

In fact, the latter are establishing themselves as the most prominent site for cultural, political, and ideological debate, a function that has been exclusive to cinema for at least half a century.

It comes as no surprise, then, that the vast majority of cinematic depictions of video games are negative. As Turner (1998) commented, "when facing a threat, the film industry has tended to respond with two different yet strictly intertwined strategies: resistance or assimilation" (pp. 14-15).

The *technoludic* film reflects this ambivalence. On one level, the film industry is resisting the video game invasion by producing narratives that clearly condemn electronic entertainment. On another, cinema is assimilating video games into its own discourses and modes of productions. Darley (2000) brilliantly summarized cinema's present condition:

The cinema may well have lost some of its hegemonic power as a form of popular entertainment, challenged by television, and now, of course recent by digital forms, yet the cinema still seems to resonate in all of those later entertainment forms. (p. 38)

### ***Contributions to the literature***

The research is important because it introduced the notion of the *technoludic* film to describe a movie that focuses, quotes, or incorporates video games into its

visuals and narratives. It suggests that the *technoludic* film represents a new film genre, created by the merging of two different languages, aesthetics, and narratives. Thus, it lies at the intersection between cinema and electronic entertainment. The notion of *technoludic* cinema represents a starting point for thinking or re-thinking about the ongoing convergence between the two media.

This thesis represents an important contribution to the literature because, by investigating how video games have influenced cinema, it did not simply draw on concepts pertaining to various fields of study, but expanded them. The research used a multidisciplinary method based on contributions from disparate areas of study such as literary theory, semiotics, film studies, and new media theory. The theory of adaptation, which has been mostly used to discuss the process of translating a novel into a film, has been “adapted” to describe how video games have been turned into films. The model of remediation has been used specifically to illustrate how cinema is incorporating video games into its narratives. By doing so, Bolter and Grusin’s concept has been considerably expanded.

This research is important because it is the first academic examination of this transversal phenomenon of media convergence. In fact, an analysis of the dialectic between the two media has not been explicitly addressed by the academic community before. By examining the shifting accounts of electronic gaming in cinema, this study has provided a critical and historical context for the debate on the relationship between new and old media.

### ***Directions for future research***

A more extensive investigation of the mutual influence between cinema and video games can be approached from at least three different perspectives: from a video game point of view, from a cinematic point of view, or from both.

In the first case, researchers could assess the film's heritage on the production, distribution, and consumption of video games. In terms of production routines, for instance, it could be noted that a significant portion of the annual production of video games is constituted by adaptations of existing movies. Moreover, since the early 1980s, the computer game industry itself has been labeled The New Hollywood, and Hollywood studios, in fact, own many software companies. A case in point is Lucasfilm, founded by George Lucas. Furthermore, as video games often depend on recognized film genres, *milieu* and stars for branding and marketing, researchers could explore the two media's common iconography, narrative themes, and generic subdivision. As such, computer or video games might initially appear as simple extensions of the big screen production.

In exploring the cinematic influence on video games, researchers could design studies to answer questions such as: To what extent can the tools of film analysis be applied to games? What particular pleasures (and frustrations) do computer games elicit? How do these compare with films? Do games depart from the narrative forms used in cinema? How might the interactive nature of games impact on factors such as the gendering of on-screen characters? What issues of production design mark games off from the cinema?

The intersecting between cinema and video games could be expanded using the four categories identified by this study. By drawing on the concept of *technoludic*



cinema, the researcher could try to answer questions such as: What is the impact of video games on films? What are the relations, similarities, and differences between films and games generally, or in specific case studies of individual titles/genres? What are the specific forms or aesthetics, e.g., use of narrative, special effects, music, and point-of-view/third-person perspectives, featured in movies that depict video games? What are the relationships and corporate connections between the two industries? Is there such a thing as interactive cinema? What are the differences between user and viewer?

Finally, an investigation on the dialectic between films and movies could be conducted simultaneously from both angles. Though ambitious in scope, such a study would be particularly timely, considering that, "at this point in time in the United States, whether or not we go to the movies, watch television or music video . . . allow our children to play video and computer games . . . we are all part of a moving-image culture and we live cinematic and electronic lives" (Sobchack, 2000, p. 137).

Thus, to make sense of this new cultural paradigm, it is necessary to become film critics.

## REFERENCES

- Aarseth, Espen J. (1997). *Cybertext: Perspectives on ergodic literature*. Baltimore, MD: John Hopkins University Press.
- Andrew, Dudley (2000). Adaptation. In James Naremore (Ed.), *Film adaptation* (pp. 34-48). New Brunswick, NJ: Rutgers University Press.
- Alloway, Nola & Gilbert, Pam. (1996). Video game culture: Playing with masculinity, violence, and pleasure. In Sue Howard (Ed.), *Wired-up: Young people and the electronic media*. London: UCL Press.
- Ascione, Ciro (1999). *Videogames. Elogio del tempo spreco* [Video Games. Tribute to wasted time]. Milano, Italy: minimum fax.
- Barthes, Roland (1974). *S/Z*. New York: Hill & Wang.
- Baudrillard, Jean (1983). *Simulations*. New York: Semiotext(e).
- Baudrillard, Jean (1988a). *America*. New York: Verso.
- Baudrillard, Jean (1988b). *The ecstasy of communication*. New York: Autonomedia.
- Baudrillard, Jean (1993). *The transparency of evil*. New York: Verso.
- Bazin, André (1986a). Beauty of a western. In Jim Hillier (Ed.), *Cahiers du Cinema: The 1950's neo-realism, Hollywood, new wave* (pp.165-169). Cambridge, MA: Harvard University Press.
- Bazin, André (1986b). An exemplary western. In Jim Hillier (Ed.), *Cahiers du Cinema: The 1950's neo-realism, Hollywood, new wave* (pp. 169-175). Cambridge, MA: Harvard University Press.
- Bazin, André (1986c). On the politique des auteurs. In Jim Hillier (Ed.), *Cahiers du Cinema: The 1950's neo-realism, Hollywood, new wave* (pp. 248-260). Cambridge, MA: Harvard University Press.
- Bazin, André, (1967). *What is cinema?* Berkeley: University of California Press.
- Beavis, Catherine (1998). Computer games: Youth culture, resistant readers and consuming passions. Retrieved on February, 26, 2000, from <http://www.aare.edu.au/98pap/bea98139.htm>.
- Beebe, Roger Warren (2000). After Arnold: Narratives of the posthuman cinema. In

- Vivian Sobchack (Ed.), *Meta-morphing: Visual transformation and the culture of quick-change* (pp. 159-179). Minneapolis: University of Minnesota Press.
- Bell, David & Kennedy, Barbara (2000). *The cybercultures reader*. New York: Routledge.
- Bender, Gretchen & Druckery, Timothy (1994). *Cultures on the brink: Ideologies of Technology*. Seattle: Bay Press.
- Bennhaun, David (1998). *Extra life: Coming of age in cyberspace*. New York: Basic Books.
- Benjamin, Walter (1968). The work of art in the age of mechanical reproduction. In Hannah Arendt (Ed.), *Illuminations* (pp. 217-251). New York: Harcourt.
- Best, Steven & Kellner, Douglas (1991). *Postmodern theory: Critical interrogations*. New York: Guilford Press.
- Bignell, Jonathan (2000). *Postmodern media culture*. Edinburgh: University Press.
- Bittanti, Matteo (1999). *L'innovazione tecnoludica. I videogiochi dell'era simbolica (1958-1984)* [The technoludic innovation. Videogames of the symbolic age (1958-1984)]. Milano, Italy: Jackson Libri.
- Bluestone, George (1957). *Novels into film: The metamorphosis of fiction into cinema*. Los Angeles: University of California Press.
- Bolter, Jay David & Grusin, Richard (1999). *Remediation: Understanding new media*. Cambridge, MA: MIT Press.
- Boorstin, Daniel (1961). *The image: A guide to pseudo-events in America*. New York: Vintage Books.
- Bordwell, David (2000). *Planet Hong Kong. Popular cinema and the art of entertainment*. Cambridge, MA: Harvard University Press.
- Borges, Jorge Luis (1962). *Ficciones*. New York: Grove Press.
- Bromberg, Heather (1996). Are MUDs communities? Identity, belonging and consciousness. In Rob Shields (Ed.), *Virtual worlds. Cultures of Internet: Virtual spaces, real histories, living bodies* (pp. 143-152). London: Sage.
- Brooks, Landon (1992). *The aesthetics of ambivalence*. Westport, CT: Greenwood Publishing.

- Brown, Scott (2001). The future of DVDs. *Entertainment Weekly*. Retrieved on August 7, 2001, from [http://www.ew.com/r0/ew/Search\\_Links\\_Clk/in?/ew/report/0,6115,169940-0~~.00.html](http://www.ew.com/r0/ew/Search_Links_Clk/in?/ew/report/0,6115,169940-0~~.00.html)
- Bywater, Tim & Sobchack, Thomas (1993). *Introduction to film criticism: Major critical approaches to narrative film*. New York: Longman.
- Bukatman, Scott (1993). *Terminal identity: The virtual subject in postmodern science fiction*. Durham, NC: Duke University Press.
- Buckwalter, Leo (1977). *Video games: A complete guide*. New York: Tempo Books.
- Burham, Van (2001). *Supercade: A visual history of the videogame age, 1971-1984*. Cambridge, MA: MIT Press.
- Burnett, Ron (1995). *Cultures of vision: Images, media, and the imaginary*. Bloomington, IN: Indiana University Press.
- Cabral Filho, J. Santos (2000). Flip horizontal: Gaming as redemption. *M/C: A Journal of Media and Culture*, 3(5). Retrieved on February, 26, 2000, from <http://www.api-network.com/mc/0010/flip.html>.
- Caillois, Roger (1961). *Man, play, and games*. New York: Free Press.
- Callera, Steve (1999). Computers and Movies: A Match Made in Hollywood. Retrieved on October, 10, 2001, from [http://www.illinimedia.com/buzz/spring\\_99/19990429/hollywood.html](http://www.illinimedia.com/buzz/spring_99/19990429/hollywood.html)
- Canova, Gianni (1997, October). L'occhio, il dito: L'estetica del videogame [The eye, the finger: Aesthetics of the video game]. *Segnocinema*, pp. 16-17.
- Cassell, Janet & Jenkins, Henry (1998). *From Barbie to mortal kombat: Gender and computer games*. Cambridge, MA: MIT Press.
- Castle, Terry (1995). *The female thermometer. 18<sup>th</sup> century and the invention of the Uncanny*. New York: Oxford University Press.
- Cawelti, G. John (1971). *The six-gun mystique*. Bowling Green, OH: Bowling Green University Popular Press.

- Cawelti, G. John (1985). The question of popular genres. In *Journal of Popular Television and Film*, 13(2), 55-61.
- Cervantes Saavedra, Miguel de (1957). *The adventures of Don Quixote*. New York: Macmillan.
- Ciskowski, David & Benedikt, Claire Lisette (1995). *MUDs: Exploring virtual worlds on the Internet*. New York: Macmillan.
- Cohen, Keith (1979). *Film and literature: The dynamics of exchange*. New Heaven, CT: Yale University Press.
- Cohen, Scot (1982). *Zap! The rise and fall of Atari*. New York: McGraw-Hill.
- Coldwell, Carter (1997). Primitivism in the movies of Ridley Scott: Alien and blade runner. In Judith Kerman (Ed.), *Retrofitting blade runner: Issues in Ridley Scott's blade runner and Philip K. Dick's do androids dream of electric sheep?* (pp. 23-34). Bowling Green, OH: Bowling Green University Popular Press.
- Coupland, Douglas (1996). *Lara's book. Lara Croft and the tomb raider phenomenon*. Rocklin, CA: Prima Publishing.
- Crawford, Chris (2001). *Understanding interactivity*. Unpublished manuscript. Retrieved on May 22, 2001, from <http://www.erasmatazz.com/book.html>.
- Cunningham, Helen (1995). Moral combat and computer game girls. In Cary Bazalgette & David Buckingham (Eds.), *In front of the children*. London: BFI Publishing.
- Dauphin, Gary (1999). Camera ready. Should Hollywood be worrying about videogames? *Feed Magazine*. Retrieved on February 07, 2000, from <http://www.feedmag.com/vgs/dauphin.html>.
- Deleuze, Gilles & Guattari, Felix (1987). *A thousand plateaus*. Minneapolis, MN: University of Minnesota Press.
- Denzin, Norman (1991). *Images of postmodern society: Social theory and contemporary cinema*. Newbury Park, CA: Sage.
- Dean, Joan (1978). Between 2001 and Star Wars. *Journal of Popular Film and Television*, 7(1), 32-41.
- Dodsworth, Clark (1997). *Digital illusion: Entertaining the future with high*

*technology*. New York: Addison-Wesley.

Donahue, Ann (2001). Gamers spin movies on PS2. *Video Business Online*. Retrieved on August 24, 2001, from [http://www.videobusinessonline.com/news/082401\\_ps2\\_movie\\_watching.asp](http://www.videobusinessonline.com/news/082401_ps2_movie_watching.asp).

Eco, Umberto (1975). *Travels in hyper reality*. New York: Harvest Books.

Edgerton, Gary (1985). Introduction. Special issue on genre studies. *Journal of Popular Television and Film*, 13(2), 53-54.

Elsaesser, Thomas & Barker, Adam (1990). *Early cinema: Space-frame-narrative*. London: British Film Institute.

Elsaesser, Thomas (1998). Louis Lumiere: The cinema's first virtualist. In Thomas Elsaesser & Ray Hoffman (Eds.), *Cinema futures: Cain, able, or cable? The screen arts in the digital age*. Amsterdam: Amsterdam University Press.

Enzerberger, Hans Magnus (2000). Constituents of a theory of media. In John Caldwell Thornton (Ed.), *Electronic media and technoculture* (pp. 62-85). New Brunswick, NJ: Rutgers University Press.

Eskelinen Markku, The gaming situation. *Game studies: The International Journal of Computer Game Research*, 1(6). Retrieved on July, 26, 2001, from <http://cmc.uib.no/gamestudies/0101/eskelinen/>

Eugeni, Ruggero (1998). *Myst: Multimedia hypertext and film semiotics*. *Iris*, 25, 9-26.

Faber, Liz (1998). *Computer graphics*. New York: Watson-Guption.

Fleming, Dan (1996). *Powerplay: Toys as popular culture*. Manchester, NY: Manchester University Press.

Finn, Mark (2000). Computer games and narrative progression. *M/C: A Journal of Media and Culture*, 3(5). Retrieved January 25, 2001, from <http://www.api-network.com/mc/0010/narrative.html>

Fiske, John (1989). *Reading the popular*. Boston, MA: Unwin Hyman.

Fiske, John (1990). *Introduction to communication studies*. New York: Routledge.

Forster, E. M. (1947). *The collected tales of E. M. Forster*. New York: Knopf.

- Francavilla, Joseph (1997). The android as *doppelganger*. In Judith Kerman (Ed.), *Retrofitting blade runner. Issues in Ridley Scott's blade runner and Philip K. Dick's do androids dream of electric sheep?* (pp. 4-15). Bowling Green, OH: Bowling Green University Popular Press.
- Freud, Sigmund (1955). The uncanny. In James Strachey (Ed.), *The standard edition of the complete psychological works of Sigmund Freud* (pp. 217-256). London: Hogart Press.
- Franklin, H. Bruce (1990). Vision of the future in science fiction films from 1970 to 1982. In Annette Kuhn (Ed.), *Alien zone: Cultural theory and contemporary science fiction* (pp. 19-31). New York: Verso.
- Friedberg, Anne (1994). *Window shopping: Cinema and the postmodern*. Berkeley: University California Press.
- Fuller, Mary & Jenkins, Henry (1995). Nintendo and the new world travel writing: A dialogue. In Steve Jones (Ed.), *Cybersociety* (pp. 57-72). Thousand Oaks, CA: Sage.
- Gabilondo Joseba (2000). Morphing Saint Sebastian: Masochism and masculinity in Forrest Gump. In Vivian Sobchack (Ed.), *Meta-morphing: Visual transformation and the culture of quick-change* (pp. 183-207). Minneapolis, MN: University of Minnesota Press.
- Gadamer, Hans-Georg (1975). *Truth and method*. New York: Seabury Press.
- Genette, Gerard (1997). *Palimpsests*. [Channa Newman & Claude Doubinsky, Trans.]. Lincoln, NB: University of Nebraska Press. (Original work published 1982).
- Gifford, James (1996). Quake tectonics. *Feed Magazine*. Retrieved on July 18, 2001, from [http://www.feedmag.com/html/feedline/96.09gifford/96.09gifford\\_master.html](http://www.feedmag.com/html/feedline/96.09gifford/96.09gifford_master.html)
- Graetz, J. Martin (1981). The origin of spacewar! Retrieved on May 25, 2001, from <http://www.enteract.com/~enflore/spacewar/spacewar.html>.
- Gray, Ann (1992). *Video playtime: The gendering of a leisure technology*. New York: Routledge.
- Greenfeld, Karl Taro (1995). *Speed tribes: Days and nights with Japan's next generation*. New York: HarperCollins Publishing.

- Greenfield, Patricia M. (1991). *Mind and media: The effects of television, video games, and computers*. Cambridge, MA: Harvard University Press.
- Grossman, Dave (1999). *Stop teaching our kids to kill: A call to action against TV, movie and video game violence*. New York: Crown Publishers.
- Gunning, Tom (1989). An aesthetic of astonishment: Early films and the (in)credulous spectator. *Art & Text*, 34, 31-45.
- Gunning, Tom (1990). The cinema of attractions: Early film, its spectator and the avant-garde. In Thomas Elsaesser & Adam Barker (Eds.), *Early cinema: Space-frame-narrative* (pp. 58-68). London: British Film Institute.
- Gunning, Tom (1998). Early American film. In John Hill & Pamela Church (Eds.), *The Oxford guide to film studies* (pp. 87-101). New York: Oxford University Press.
- Hancock, Hugh (2000). Machinima cutscene creation. *Gamasutra*. Retrieved on June 22, 2001, from [http://www.gamasutra.com/features/20001006/hancock\\_01.htm](http://www.gamasutra.com/features/20001006/hancock_01.htm)
- Hancock, Hugh (2001). Featured film: Metal gear solid 2 trailer. *Machinima.com*. Retrieved on June 20, 2001, from <http://machinima.com/articles/Featuredfilm.MGS2.Trailer/Index.shtml>.
- Haddon, Leslie (1981). Electronic and computer games: The history of an interactive medium. *Screen*, 29(2), 52-73.
- Harrington Richard (1992, March 7). The lawnmower man [Review of the motion picture *The Lawnmower Man*]. *The Washington Post*, p. 12.
- Haumersen, Tina (2000). The representation of females in gaming. *Gamespy*. Retrieved on September 15, 2001, from <http://www.gamespy.com/editorials/september00/females/>
- Heim, Michael (1992). *The metaphysics of virtual reality*. New York: Oxford University Press.
- Herman, Leonard (2001). *Phoenix: The fall and rise of video games*. Springfield, NJ: Rolenta Press.
- Herold, Charles (2001, August 30). Crossing into cinema and real life. *The New York Times*, pp. 23-24.



- Herz, Jessie C. (1997). *Joystick nation: How video games ate our quarters, won our hearts, and rewired our minds*. New York: Little Brown & Company.
- Herz, Jessie C. (1999, December 23). Movies and games, so alike, so different. *The New York Times*, p. 15.
- Holden, Stephen (1999, December 24). Titus: Cruelty hath a human face, a human heart [Review of the motion picture *Titus*]. *The New York Times*, p. 23.
- Huizinga, Johan (1950). *Homo ludens: A study of the play element in culture*. New York: Roy Publishers.
- Haney, Lynn (1984). *The last starfighter storybook*. New York: Putnam.
- Huxley, Aldous (1953). *Brave new world*. New York: Bantham.
- IDSA (2000) State of the industry report 2000-2001. *Interactive Digital Software Association*, Washington, DC.
- Jameson, Fredric (1991). *Postmodernism, or the cultural logic of late capitalism*. Durham, NC: Duke University Press.
- Jenkins, Henry (1997). Complete freedom of movement: Videogames as gendered play spaces. Retrieved on May 14, 2001, from <http://web.mit.edu/21fms/www/faculty/henry3/pub/complete.html>.
- Jenkins, Henry (2000a). Art form for the digital age. *Technology Review*, 104(5), p. 43.
- Jenkins, Henry (2000b). Digital renaissance: Convergence? I diverge. *Technology Review*, 119(6), p. 45.
- Johnson, Steven (1997). *Interface culture: How new technology transforms the way we create and communicate*. New York: Basic Books.
- Kaminsky, Stuart M. (1974). *American film genres*. New York: Dell.
- Kaplans, Judith (1983). The image of amusement arcades and differences in male and female videogame playing. *Journal of Popular Culture*, 17(1), 93-98.
- Kaufmann, Stanley & Menstell, Bruce (Eds.) (1972). *American film criticism*. New York: Liverlight.
- Kinder, Marsha (1990). *Playing with power in movies, television, and video games*.

- Berkeley: University of California Press.
- Kitses, Jim (1970). *Horizons west*. Bloomington, IN: Indiana University Press.
- Kristeva, Julia (1980). *Desire in language: A semiotic approach to literature and art*. New York: Columbia University Press.
- Kroker, Arthur & Weinstein, Michael (1994). *Data trash: The theory of the virtual class*. New York: St. Martin's Press.
- Kroll, Jack (2000, March 15). Emotion engine? I don't think so. *Newsweek*, pp.13-14.
- Kuhn, Annette (Ed.) (1990). *Alien zone: Cultural theory and contemporary science fiction cinema*. New York: Verso.
- Kuhn, Annette (Ed.) (2000). *Alien zone II: The spaces of science fiction cinema*. New York: Verso.
- Laplante, Alice & Seidner, Rich (1999). *Playing for profit: How digital entertainment is making big business out of child's play*. New York: John Wiley & Sons.
- Laurel, Brenda (1991). *Computers as theatre*. New York: Addison-Wesley.
- Le Diberder, Alain & Le Diberder, Francois (1993). *Qui a peur des jeux vidéo? [Who is afraid of video games?]*. Paris: La Découverte.
- Levy, Pierre (1998). *Becoming virtual: Reality in the digital age*. New York: Plenum Trade.
- Levy, Steven (1994). *Hackers: Heroes of the computer revolution*. New York: Viking.
- Lévi-Strauss, Claude (1967). *Structural anthropology* [Claire Jacobson & Brooke Grundfest Schoepf, Trans]. Garden City, NY: Anchor-Doubleday. (Original work published 1958)
- Lévi-Strauss, Claude (1969). *The raw and the cooked*. London: Cape.
- Liotard, Jean-François (1988). *The postmodern condition: A report on knowledge*. Minneapolis: University of Minneapolis Press.
- Lowery, Sharon & DeFleur, Marie Louise (1983). *Milestones in mass communications research: Media effects*. New York: Longman.

- Manovich, Lev (1999). What is digital cinema? In Peter Lunenfeld (Ed.), *The digital dialectic* (pp. 172-192). Cambridge, MA: MIT Press.
- Manovich, Lev (2001). *The language of new media*. Cambridge, MA: MIT Press.
- Marshall, David & Morris, Sue (2000). Editorial: Game. *M/C: A Journal of Media and Culture*, 3(5). Retrieved on February 15, 2001, from <http://www.api-network.com/mc/0010/edit.html>
- McLuhan, Marshall (1964). *Understanding media: The extensions of man*. New York: Mentor.
- Mesch, Claudia (2000). Racing Berlin: The games of *run Lola run*. *M/C: A Journal of Media and Culture*, 3(3). Retrieved on February 21, 2001, from <http://www.api-network.com/mc/0006/speed.html>
- Mitchell, Elvis (2001, June 15). Hey guys, wanna see a babe swing a bungee [Review of the motion picture *Lara Croft: Tomb Raider*]. *The New York Times*, p. 18.
- Mitchell, William J. (1995). *City of bits: Space, place, and the infobahn*. Cambridge, MA: MIT Press.
- Morse, Margaret (1994). What do cyborgs eat? Oral logic in an information society. In Gretchen Bender & Timothy Druckery (Eds.), *Cultures on the brink: Ideologies of technology*. Seattle: Bay Press.
- Murray, Janet (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. Cambridge, MA: MIT Press.
- Nachbar, Jack; Weiser, Deborah; Wright, John (1978). *The popular culture reader*. Bowling Green, OH: Bowling Green University Popular Press.
- Nassaw, David (1993). *Going out: The rise and fall of public amusements*. New York: Basic Books.
- Negroponte, Nicholas (1995). *Being digital*. New York: Alfred A. Knopf.
- Newman, Kim (2001, June). Extra texture. *Sight & Sound*, p. 4.
- Nichols Bill (2000). The work of culture in the age of cybernetic systems. In John Thornton Caldwell (Ed.), *Electronic media and technoculture* (pp. 91-112). New Brunswick, NJ: Rutgers University Press.
- Ovid (1986). *Metamorphoses* [A.D. Melville, Trans.]. New York: Oxford University

Press.

- Packer, Randall & Jordan, Ken (2001). *Multimedia: From Wagner to virtual reality*. New York: W.W. Norton.
- Pearce, Celia (1998). Beyond shoot your friends: A call to arms in the battle against violence. In Clark Dodsworth (Ed.), *Digital illusion: Entertaining the future with high technology* (pp. 209-228). New York: Addison Wesley.
- Pesce, Mark (2000). *The playful world: Interactive toys and the future of the imagination*. New York: Ballantine Books.
- Plato (1974). *The republic*. Indianapolis, IN: Hackett.
- Poole, Steve (2000). *Trigger happy: Video games and the future of entertainment*. New York: Revolution Arcade Publishing.
- Propp, Vladimir (1990). *The morphology of the folk tale*. Austin, TX: University of Texas Press.
- Quittner, Joshua (1999, May 10). Are video games really so bad? *Time*, pp. 50-59.
- Reid, Elizabeth (1995). Virtual worlds: Culture and imagination. In Steven Jones (Ed.), *CyberSociety: Computer, mediated communication and community* (pp. 164-183). Thousand Oaks, CA: Sage.
- Rheingold, Howard (1991). *The virtual community: Homesteading on the electronic frontier*. Reading, MA: Addison-Wesley.
- Robinett, Warren. (1998). Interactivity and individual viewpoint in shared virtual world: The big screen versus networked personal displays. In Clark Dodsworth (Ed.), *Digital illusion: Entertaining the future with high technology* (pp. 331-342). New York: Addison Wesley.
- Robins, Kevin (1996). *Into the image. Culture and politics in the field of vision*. London: Routledge.
- Romney, Jonathan (2000, March). Being John Malkovich movie review. *Sight and Sound*, p. 45.
- Rosemberg, Scott (1995, January). The latest action heroes. *Wired*, p. 34.
- Rowley, Stephen (1998). Action films/action games. Retrieved on May 15, 2001, from [http://home.mira.net/~satadaca/action.htm#N\\_5](http://home.mira.net/~satadaca/action.htm#N_5).

- Rucker, Rudy (2000). Pac Man. In *Gnar!* (pp. 56-63). New York: Four Walls Eight Windows.
- Ruppersberg, Hugh (1990). The alien messiah. In Annette Kuhn (Ed.), *Alien zone. Cultural theory and contemporary science fiction* (pp. 32-38). New York: Verso.
- Ryan, Marie-Laure (2000). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Johns Hopkins University Press.
- Ryan, Michael & Kellner, Douglas (1990). Technophobia. In Annette Kuhn (Ed), *Alien zone: Cultural theory and contemporary science fiction* (pp. 58-65). New York: Verso.
- Sandin, Daniel (1998). Digital illusion: Virtual reality, and cinema. In Clark Dodsworth (Ed.), *Digital illusion. Entertaining the future with high technology* (pp. 1-12). New York: Addison Wesley.
- Schwabach, Bob (2001, May 13). Don't bet your cybersavings on video game spinoffs. *The New York Times*, pp. 4-20.
- Schelde, Per (1993). *Androids, humanoids, and other science fiction monsters. Science and soul in science fiction films*. New York: New York University Press.
- Sedaris, David (2000). *Me talk pretty one day*. New York: Little Brown.
- Sellers, John (2001). *Arcade fever: The fan's guide to the golden age of video games*. New York: Running Press.
- Selnow, G. W. (1984). Playing video games: The electronic friend. *Journal of Communication*, 34(2), 148-156.
- Selnow, G. W. (1987). The fall and rise of video games. *Journal of Popular Culture*, 21, 53-60.
- Schatz, Thomas (1981). *Hollywood genres: Formulas, filmmaking, and the studio system*. Philadelphia: Temple University Press.
- Schroeder, Randy (1996). Play space invaders: Huizinga, Baudrillard, and video games. *Journal of Popular Culture*, 30(3), 143-153.
- Scott, Daniel (1995). The effects of video games on feelings of aggression. *The Journal of Psychology*, 129(2), 121-134.

- Sconce, Jeffrey (2000). *Haunted media: Electronic presence from telegraphy to television*. Durham, NC: Duke University Press.
- Sharet, Christopher (1985). The hero as a pastiche: Myth, male, fantasy and simulacra in mad max and the road warrior. *Journal of Popular Television and Film*, 13(2), 23-28.
- Shaw, Rawn & James Romine (1995). *Playing MUDs on the Internet*. New York: John Wiley.
- Sheff, David (1994). *Game over: Press start to continue*. New York: Game Press.
- Sinyard, Neil (1986). *Filming literature: The art of screen adaptation*. London: Croom Helm.
- Skirrow, Gillian (1986). Hellvision: An analysis of video games. In Colin MacCabe (Ed.), *High theory/low culture. Analyzing popular television and film* (pp.120-132). New York: St. Martin's Press.
- Schleiner, Anne-Marie (1998). Does Lara wear fake polygons? *Switch*. Retrieved on September 26, 2001, from <http://www.opensorcery.net/lara2.html>
- Smith, Sue (1983). Coin detected in pocket: Video games as icons. In Christopher Geist & Steve Nachbar (Eds.), *The popular culture reader* (pp. 145-156). Bowling Green, OH: Bowling Green University Popular Press.
- Sobchack, Vivian (1997). *Screening space: The American science fiction film*. New Brunswick, NJ: Rutgers University Press.
- Sobchack, Vivian (2000). The scene of the screen: Envisioning cinematic and electronic presence. In John Thornton Caldwell (Ed.), *Electronic media and technoculture* (pp. 232-233). New Brunswick, NJ: Rutgers University Press.
- Spielmann, Yvonne (1999). Expanding film into digital media. *Screen*, 40(2), 34-45.
- Stables, Kate (2000, January). Me and my shadows, *Sight & Sound*, pp.12-13.
- Stallabrass, Julian (1996). *Gargantua: Manufactured mass culture*. New York: Verso.
- Stone, Allucqu re Roseanne (1995). *The war of desire and technology at the close of the mechanical age*. Cambridge, MA: MIT Press.

- Strehovec, Janez (1997). Vertigo on purpose: Entertainment in simulators. *Journal of Popular Culture*, 31(1), 34-54.
- Summon, Paul (1996). *Future noir: The making of blade runner*. New York: Harper Prism.
- Toyama, Kevin (2001, September). Videogame U: Our guide to schools for games. In *Next Generation*, pp. 50-56.
- Telotte, J. P. (1990). The doubles of fantasy and the space of desire. In Annette Kuhn (Ed.), *Alien zone: Cultural theory and contemporary science fiction* (pp.152-159). New York: Verso.
- Telotte, J. P. (1995). *Replications: A robotic history of the science fiction film*. Chicago: University of Illinois Press.
- Telotte, J. P. (1999). *A distant technology: Science fiction film and the machine age*. Hanover, NH: Wesleyan University Press.
- Turkle, Sherry (1984). *The second self: Computers and the human spirit*. New York: Simon & Schuster.
- Turkle, Sherry (1995). *Life on the screen*. New York: Simon & Schuster.
- Turner, Graeme (1988). *Film as social practice*. New York: Routledge.
- Warshow, Robert (1970). *The immediate experience*. New York: Atheneum.
- Weinberg, Lawrence (1982). *Tron: The storybook*. New York: Little Simon.
- Winnicott, D.W. (1971). *Playing and reality*. London: Tavistock.
- Wolf, Mark J. (1999). *The entertainment economy: How mega media forces are transforming our lives*. New York: Times Books.
- Wolf, Mark J. P. (2000). *Abstracting reality: Art, communication, and cognition in the digital age*. New York: University Press of America.
- Wolf, Mark J. P. (1997). Inventing space: Toward a taxonomy of on- and off-screen space in video games. *Film Quarterly*, 51(1), 11-23.
- Wright, Kathryn (2000). GDC 2000: Race and gender in games. *Womengamers.com*. Retrieved on September 14, 2001, from <http://www.womengamers.com/articles/racegender.html>.

Wright, Will (1975). *Six guns and society: A structural study of the Western*. Berkeley: University of California Press.

Young, R. Jeffrey (2000). Inhabiting the star wars universe through video game and film. Retrieved May 11, 2001, from <http://www.pressroom.com/~screenager/podrace.htm>



**APPENDIX****FILMOGRAPHY**

- Anderson, Paul T. (1995). *Mortal kombat*. United States: New Line Cinema.
- Araki, Gregg (1995). *Doom generation*. United States: Trimark Pictures.
- Badham, John (1983). *Wargames*. United States: MGM.
- Bare, Richard (1973). *Wicked, wicked*. United States: Metro-Goldwyn Mayer.
- Barron, Steve (1984). *Electric dreams*. United States: Metro-Goldwyn Mayer.
- Bender, Jack (1991). *Child's play 3: Look who's stalking*. Universal Pictures.
- Bigelow, Kathryn. (1995). *Strange days*. United States: 20<sup>th</sup> Century Fox.
- Carpenter, John (1981). *The thing*. United States: Universal Pictures.
- Carpenter, John (1999). *Escape From LA*. United States: Universal Pictures.
- Castle, Nick (1984). *The last starfighter*. United States: Universal.
- Clark, Graydon (1983). *Joysticks*. United States: Jensen Farley Pictures.
- Clouse Robert (1973). *Enter the dragon*. United States: Warner Bros.
- Cronenberg, David (1999). *eXistenZ*. Canada: Universal.
- Dante, Joe (1983). *Twilight zone*. United States: Warner Bros.
- Dante, Joe (1984). *Gremlins*. United States: Warner Bros.
- Dante, Joe (1985). *Explorers*. United States: Warner Bros.
- De Palma, Brian (1984). *Body double*. United States: Columbia Pictures.
- De Souza, Steven (1994). *Street fighter*. United States: Universal.
- Engelbach, Dan (1985). *America 3000*. United States: Cannon Group.
- Fleischer, Richard (1973). *Soylent green*. United States: Metro-Goldwyn-Mayer.

- Flynn, John (1994). *Brainscan*. United States: Columbia Tristar.
- Franklin, Richard (1984). *Cloak and dagger*. United States: Universal.
- Furie, Sidney J. (1986). *Superman IV - The quest for peace*. United States: Cannon Group.
- Fuqua, Anthony (1999). *The replacement killers*. United States: Sony Pictures.
- Heckerling, Amy (1982). *Fast times at Ridgemont high*. United States: Universal Pictures.
- Holland, Tom (1989). *The wizard*. United States: Universal.
- Inkol, Sheldon (1995). *Carver's gate*. Canada: Producers Network Associates.
- Jankel, Annabel & Morton, Rocky (1993). *Super Mario bros*. United States: Buena Vista.
- Kershner, Irvin (1983). *Never say never again*. United States: Warner Bros.
- King, Stephen (1986). *Maximum overdrive*. United States: DEG.
- Lau, Wai Keung (1999). *Lie huo zhan che II - zhi jisu chuanshuo*. [The Legend of Speed]. Hong Kong: NA.
- Lee, Spike (1997). *Clockers*. United States: Warner Bros.
- Leonetti, Joe.(1995). *Mortal kombat: Annihilation*. United States: New Line Cinema.
- Lester, Richard (1975). *The hunter will get you*. United States: Crito Films.
- Lester, Richard (1975). *Juggernaut*. United States: United Artists.
- Levinson, Brian (1992). *Toys*. United States: 20<sup>TH</sup> Century Fox.
- Liman, Doug (1996). *Swingers*. (1997). United States: Independent Pictures.
- Limosin, Francois (1998). *Tokyo eyes*. France/Japan: Euro Space.
- Lisberger, Steven (1982) *Tron*. (1997). United States: Disney.
- Meyer, Russ (1979). *Beneath the valley of the ultravixens*. United States: RM Films International.

- Millar, Gavin (2000). *Complicity*. United Kingdom: Carlton Films.
- Nimoy, Leonard (1984). *Star Trek III: The search for Spock*. United States: Paramount Pictures.
- Oshii, Mamoru (2000). *Avalon*. Japan: Bandai Visual Co.
- Ozawa, Shigehiro (1974). *Gekitotsu! Satsujin ken*. [Street Fighter]. Japan: Toei.
- Pakula, Alan. (1974). *The parallax view*. United States: Paramount Pictures.
- Perry, Fred (1974). *Rancho deluxe*. United States: United Artists.
- Pyun, Albert (1993). *Arcade*. United States: Paramount Pictures.
- Raffill, Stewart (1984). *The Philadelphia experiment*. United States: New World Pictures.
- Reggio, Geoffrey (1982). *Koyaanisqatsi: Life out of balance*. United States: Institute For Regional Education.
- Reitman, Ivan (1984). *Ghostbusters*. United States: Columbia Pictures.
- Renders's, Pierre-Paul (2000) *Thomas in love*. Belgium: Miramax.
- Roberts, Chris (1999). *Wing commander*. United States: 20<sup>th</sup> Century Fox.
- Romero, George A (1978). *Dawn of the dead*. United States: United Film.
- Rosman, Mark (1995). *Evolver*. United States: Trimark Pictures.
- Salvatores, Giuseppe (1997). *Nirvana*. Italy: Cecchi Gori Group/Miramax.
- Sakaguchi, Hironobu (2001). *Final fantasy: The spirits within*. Japan: Sony Pictures.
- Sargent, Joseph (1983). *Nightmares*. United States: Universal.
- Smith Kevin (1997). *Chasing Amy*. United States: View Askew Productions.
- Szwarc, Jeannot (1978). *Jaws 2*. United States: Universal Pictures.
- Tang, Hin Sing (1996). *Gu huo nu zhi jue zhan jiang hu* [Sexy and dangerous]. Hong Kong: Wong Jing's Workshop Ltd.
- Taymor, Julie (1999). *Titus*. England: Clear Blue Sky Productions.

- Tykwer, Tom (1999). *Run Lola run*. Germany: Sony Pictures.
- Verhoeven, Paul (1990). *Total recall*. United States: Tristar Pictures.
- Wachowski, Andrew & Wachowski, Larry. (1999). *The Matrix*. United States: Columbia Pictures.
- Wang, Wayne (2001). *The center of the world*. United States: Artisan Entertainment.
- Warhol, Andy (1967). *Chelsea girls*. United States: Andy Warhol Productions
- Weir, Peter (1993). *Fearless*. United States: Warner Bros.
- West, Simon (2001). *Lara Croft: Tomb raider*. United States: Paramount Pictures.
- Wong, Jing (1993). *Chao ji xue xiao ba wang* [Future Cops]. Hong Kong: Video Search.
- Yip, Wilson (1998). *Sang dut Sau Shut* [Bio Zombie]. Japan: Brilliant Idea Group.
- Yuchich, James (1993). *Double dragon*. United States: Gramercy Pictures.
- Yu-hsun, Chen (1995). *Redai yu* [Tropical fish]. Taiwan: NA.
- Zemeckis, Robert (1985). *Back to the future*. United States: Universal Pictures.
- Zemeckis, Robert (1989). *Back to the future II*. United States: Universal Pictures.

## **Advisor Committee**

### **Primary Advisor**

Prof. Diana **Stover**

Journalism and Mass Communications Department

San José State University

Phone (office): 924-3271

Email: [stover@jmc.sjsu.edu](mailto:stover@jmc.sjsu.edu)

### **Secondary Advisor**

Prof. Cecilia **Baldwin**

Journalism and Mass Communications Department

San José State University

Phone (office): 924-3266

Phone (home): 934-1461

Email: [baldwin@jmc.sjsu.edu](mailto:baldwin@jmc.sjsu.edu)

### **Third Advisor**

Prof. Scot **Guenter**

Humanities Department

San José State University

Phone (office): 924-1366

Phone (home): 295-4070

Email: [sguenter@earthlink.net](mailto:sguenter@earthlink.net)