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Remediation

Understanding New Media

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Computer Games

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The term *computer game* covers a range of forms, including violent action games, strategy games, role-playing and narrative games, erotic and frankly pornographic applications, card games, puzzles and skill-testing exercises, and educational software. Some of these forms are clear repurposings of early games. Some computer games restage famous board games, from Monopoly to Trivial Pursuit; others enact war games (including reenactments of World War II, the Civil War, and so on), which were first introduced and are still played as intricate board games. There are digital versions of every popular American sport from golf to football, which remediate on at least two levels. Because sports themselves are staged events and at the same time televised performances, the computerized versions can refashion our experience of both.

Computer games are delivered on a variety of platforms, which are themselves multiply remediating artifacts: arcade machines, video units that connect to a television set, CD-ROM (or DVD) applications for desktop computers, games sites and servers on the Internet to be received by desktop computers or televisions with set-top boxes, and portable games units. In all their forms and with all their modes of delivery, digital games illustrate the commodification of the computer.

Arcade and Video Games

Games were introduced first in arcades and then as home video units in the early 1970s (Herz 1997, 14), a time when only organizations and businesses could afford fully programmable mainframes and minicomputers. (The first do-it-yourself computer kits, such as the Altair 8800, also date from this time, but they were of interest only to skilled hobbyists.) The ongoing development of arcade and home games paralleled or

anticipated the development of the desktop computer and its interface. These games in fact repurposed the mainframe and the mini as well as the desktop computer, with an implicit suggestion that gaming, or at least an immediately responsive, graphical interface, is what computing should really be about.

As games became more graphically sophisticated, the desktop computer did too, so that the remediations were at times mutual. Sometimes the desktop computer would run ahead of the games (the Macintosh interface in 1984 was more graphically sophisticated than many contemporary games); sometimes the visual presence and interactive strategies of the games would suggest new paths for the desktop interface. Finally, the portable units, such as the Nintendo Game Boy introduced in 1989 (Herz 1997, 21), repurposed the pocket calculator and the portable computer, with a claim to immediacy of experience through the intense, almost hypnotic involvement of the user.

The earliest games in arcades were not at all photorealistic; indeed, they just managed to break out of one dimension into the second. Although the famous game Pong consisted of nothing more than lines and circles on an empty field, it nevertheless liberated the user from the conventions of contemporary computers, which were still programmed with punched cards or at best through a dumb terminal with a command-line interface. In Pong, it was as if the circles and lines had flown off the command line and could ricochet around the screen (fig. 4.1). Although the graphics were primitive, Pong and other first-generation games were hypermediated in that they called attention to an interface that seemed at the time to be moving at a frenetic pace. No one confused Pong with a game of tennis or Ping-Pong in the physical world. Nevertheless, it was a genuine surprise to watch a dot on the screen behave like a ball, bouncing off each striking paddle or ricocheting off the side of the screen and returning on an appropriate trajectory. There was a vast difference between this graphic behavior and the operations of a traditional computer, which manipulated symbols and presented its results only in rows of alphanumeric characters on the screen or on perforated printer paper. The game suggested new formal and cultural purposes for digital technology.

Soon the arcade games became fully two-dimensional, with figures cruising, running, or hopping around as inhabitants of an electronic Flatland, thus anticipating and then later refashioning the desktop interface as it evolved in the 1980s. In the popular PACMAN, for example, the amoeba-like figures can be seen as weird desktop icons, repurposed from the sedate task of representing data files and directories and set in motion to gobble up or be gobbled (fig. 4.2). Like all the other action games from this era, PACMAN is completely opaque; there is nothing behind or beyond the interface, as there appears to be with a perspective painting or photograph. The game is an interface, and so for the player the immediacy of the experience can come only through acknowledging the medium. © p. 31

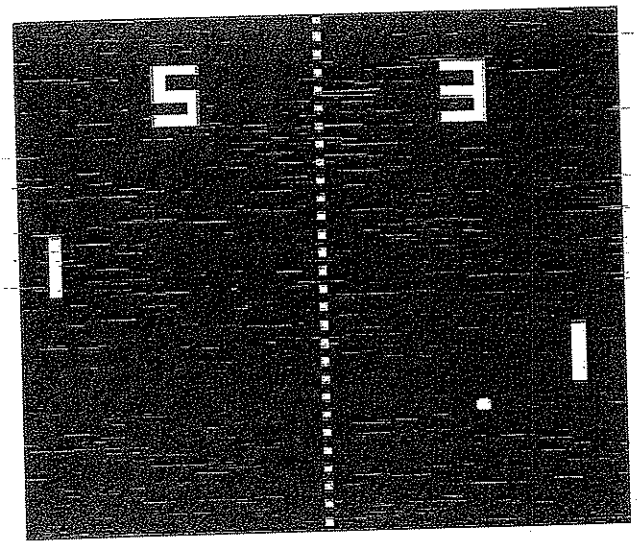
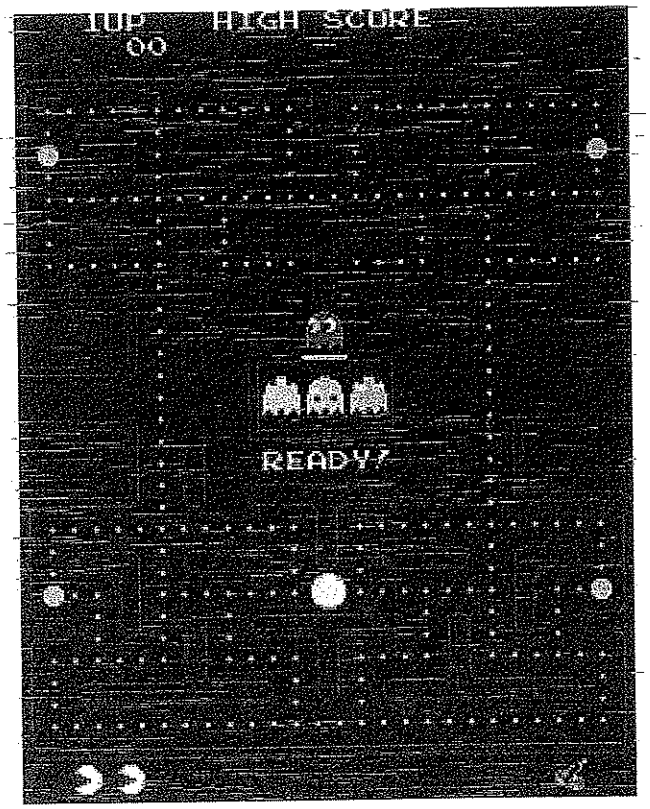


Figure 4.1 Pong, an early video game. © 1998, Sherri Locker/FOX News. Used by permission.

Action games in arcades, on video units, and on computers have continued to require the user's intimate involvement with the interface. Some developers have created more visually complicated games without showing any particular concern to pursue transparency. Others have worked toward a three-dimensional transparency, toward producing in the user a feeling of immersion through linear perspective and a first-person point of view. In addition to remediating the computer itself, these games also remediate television and film. In fact, the distinction between the more hypermediated and the more transparent games often turns on whether the primary remediation is television or film.

Video games are played on a repurposed television set, one in which an attached control unit transforms the screen into a different medium. Such video game systems constitute a commodity different from broadcast television shows—one intended for a particular group (boys in their pre- and early teens) and packaged and paid for in a differ-

Figure 4.2 PACMAN, an early video game.



ent way. The game units co-opt broadcast television to offer a kind of entertainment whose characteristics include simple but violent narratives and tightly coupled interaction between the player and the screen. At least for its audience of young users, the interactivity is an improvement over conventional television. Although the remote control for a conventional set allows the viewer only to change channels, reduce the sound, and make other relatively minor alterations in the video stream, the joysticks, keyboards, and trackballs of the games refashion and magnify the player's sense of control. Video games, as well as the action-style arcade and computer games, nevertheless continue to show the influence of conventional television.

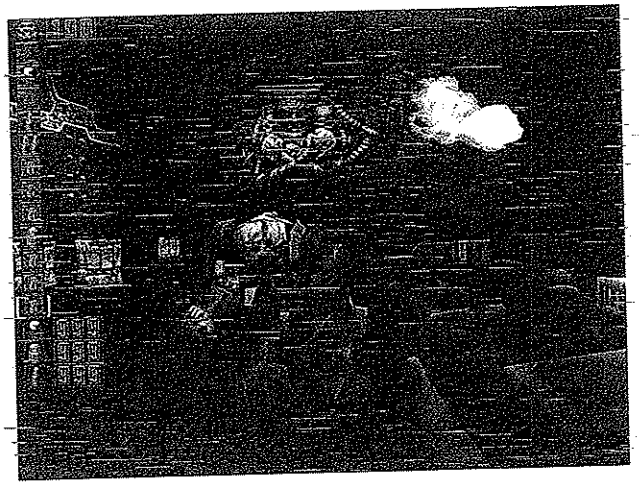


Figure 4.3 Quake II. Texture graphics and artwork © 1997, 1998 Id Software, Inc. All rights reserved. Used with permission.

Television operates more often under the logic of hypermediacy than does film. For a variety of reasons, television readily acknowledges itself as a medium, and action-style games are like television in this willingness to acknowledge their own mediation. Like television, these games function in real time: either the player tries explicitly to "beat the clock" or faces some other limitation, such as the amount of ammunition, which defines the rushed pace of the game. Finally, like television, these games are about monitoring the world. Television and video cameras monitor continuously the visual scene at which they are pointed. © p. 187 In the same way, players of action-style games are called on to conduct an ongoing surveillance. They are assigned explicitly or implicitly the role of security guards, whose simple task is to shoot anything that appears threatening. Because the ultimate threat is that the enemy will destroy the equilibrium of the system and eventually halt the game by destroying the player himself, the player must constantly scan the visual field and direct his fire appropriately. Ideologically, the player is asked to defend or reestablish the status quo, so that even though the violence of the games appears to be antisocial, the ultimate message is not. It is a message that has prevailed from the early games such as *Space Invaders* in the 1970s to such games as *Doom* and *Quake* in the 1990s (fig. 4.3). For decades, action games have played out the most aggressive form of televisual monitoring.

In the 1980s, first arcade games and then video and computer games began to exploit three-dimensional graphics and so to define a space that could be continuous with the user. Designers could then make the games remediate not only the monitoring function of all video, but also the narrative functions of television and film. An early example was *Dragon's Lair,* which contained short segments of linear video (Herz 1997, 147). Arcade games and video games have not exploited the possibilities of interactive narrative as have computer games, however, probably because the arcade and the living room are too public and noisy. Interactive narrative games favor a single user with the time and the solitude to solve puzzles and make choices. These more thoughtful games remediate film rather than video.

Interactive Film

Graphic, role-playing computer games derive their narrative structure from earlier textual games (*Zork* and similar adventure games), which themselves come from fantasy literature, such as Tolkien's *The Lord of the Rings.* Their visual tradition is that of three-dimensional graphics and ultimately, therefore, the tradition of realistic, perspective painting. Such games seek the real, sometimes through transparency and sometimes through hypermediacy—sometimes by encouraging the player to look through the surface of the screen and sometimes by dwelling on the surface with its multiplicity of mediated objects. This combination is what makes Tolkien's trilogy such an attractive model for game designers and players. Although the books describe a world of fantastic events and characters with a photorealistic attention to detail, the text calls attention to itself with its antiquated prose and poetry. The elements of immediacy and hypermediacy combine to create an effect that many computer game designers have consciously or unconsciously imitated. This is the case with the extraordinarily popular and influential *Myst,* which is compelling because it simultaneously remediates several media on several levels (cf. Smith forthcoming). *Myst* combines three-dimensional, static graphics with text, digital video, and sound to refashion illusionistic painting, film, and, somewhat surprisingly, the book as well. Almost certainly without the conscious intent of its authors, *Myst* turns out to be an allegory about the remediation of the book in an age of digital graphics.

The logic of immediacy requires that the acts of mediation be concealed, and *Myst* is about concealment, about hidden puzzles whose solutions open up new graphic worlds and bring the player closer to

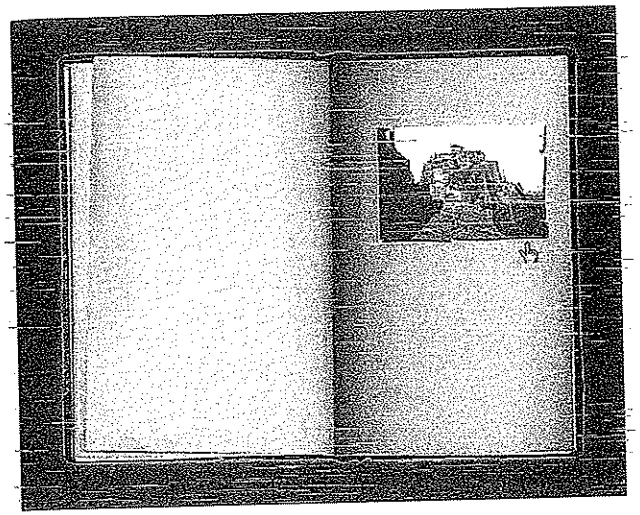


Figure 4.4 Myst island contained within the Myst book. © 1993 Cyan Inc. Myst® Cyan Inc. Reprinted with permission.

solving the mystery of the father and his two sons. "Myst" is not only the name of the game, but also the name of the book that tumbles into a crevice during the game's cinematic opening credits. The book then opens to reveal the island, as books in movies in the 1930s often opened to reveal a picture that then became the first scene of the film (fig. 4.4). There is a whole library on Myst island, some of whose books describe worlds that the father has created. Two strange volumes actually contain his evil sons—we can see them as noisy video images inside the pages of the books—while the father, named Atrus, is trapped elsewhere (fig. 4.5). The concealment in *Myst* comes through containment, replication, and changes of scale. Like a series of nested Russian dolls, the Myst book contains the island, which in turn contains the library, which contains the books, which contain the sons. At the same time, the game makes unwitting allusions to the literature of generational conflict from the *Oresteia* to *Finnegans Wake.* The game and the allusions begin with the literal fall of Atrus into the crevice, where the falling father morphs into the falling book. The father thus becomes the book that becomes the game. Eventually the player discovers that the two volumes that contain the brothers are incomplete: their videos are faulty because their pages have been scattered. So the player must hunt for these pages throughout the *Myst* worlds. If the player retrieves a

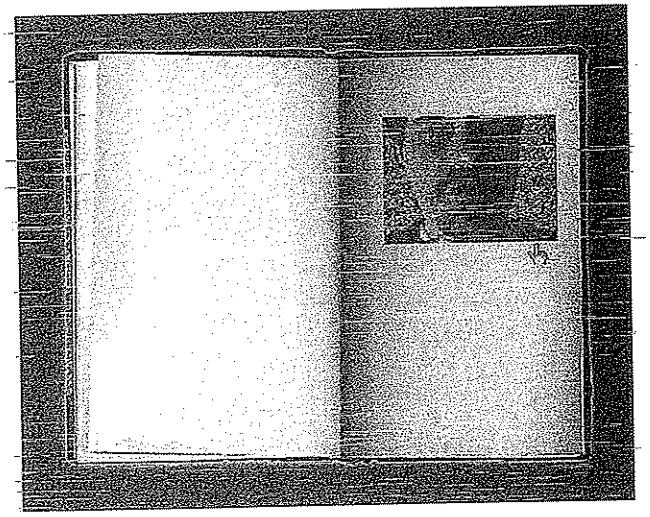


Figure 4.5 One of the sons of Atrus in *Myst*. © 1993 Cyan Inc. Myst ® Cyan Inc. Reprinted with permission.

certain page from another world, she can gain access to a chamber where the father has been imprisoned by his sons. The father then goes back to the library and apparently destroys the two books that hold his sons. If the player makes the mistake of trusting either son and places all of the blue or red pages in one son's book, then that son escapes and the player must take his place, trapped in the book.

The allegory is obvious: the book as a text should be replaced by the book as a window onto a visually realized world. Books operate best (or as best they can) under the logic of immediacy, but computer graphics are more immediate and therefore better. If the player wins by helping the father destroy the brothers' books, she transcends the book as a texture of symbols and is allowed to remain in the world of computer graphics. If she fails, she is trapped forever in the book itself—the worst possible fate in the age of graphics. In the course of playing, what the Myst player is actually discovering are the moments and strategies by which the computer game remediates the printed book.

In denying the book, *Myst* is also affirming the book's great rival in the twentieth century: film. *Myst*'s refashioning of film is subtle. The game offers very little digitized video (although the video it offers is strategically important) and instead presents the player with a series of tableaux that change only when she clicks. Still, there is no question that the game draws heavily on such detective films as *Vertigo* and *Chinatown*, which present the detective as voyeur. *Myst* is an interactive detective film in which the player is cast in the role of detective. It is also a film "shot" entirely in the first person, in itself a remediation of the Hollywood style, where first-person point of view is used only sparingly—except in special cases, such as *Strange Days* recently and some film noir in the 1940s. (See Telotte, 1989.) Like many of the other role-playing games, *Myst* is in effect claiming that it can succeed where film noir failed: that it can constitute the player as an active participant in the visual scene. As Lenny in *Strange Days* might put it, *Myst* is trying to be "like film only better."

Myst tries to improve on film by redefining the standard by which we judge film. In many instances of remediation, the new medium must try to convince the viewer to accept a new standard, for the older medium is inevitably superior when judged by its own traditions. In *Myst*, for example, the mystery is singularly lacking in the rhythmic variations we find in the traditional film. If anything, the game's narrative stillness is like the arrested time in such unusual (and by Hollywood standards unsuccessful) films as Antonioni's *L'Avventura*, *Blow-up*, and *The Passenger*. *Myst* sustains almost to the end the single moment in which the detective is on the verge of making a discovery, although our viewing habits from film tell us that that moment cannot last indefinitely. We expect some revelation and probably some violence, and our expectation is the source of the game's quiet suspense. When we enter a dark passage on Myst island, we expect a creature to come out of the darkness at us—but nothing ever comes.

Unlike in Antonioni's films, however, resolution *is* possible in *Myst*, through the solution of a series of puzzles. These puzzles constitute the player as a detective only in the shallow sense, for they do not move the player deeper into the mystery, into a mystery of self. When the player does find and free the father, she does not learn anything about herself. And unlike in *Blow-up*, the player of *Myst* ultimately rejects the logic of mediation in favor of the logic of the transparent, which the father Atrus affirms by destroying the books.

The purpose of *Myst*'s remediation of film is not principally to comment on film; the creators of *Myst* may not even be aware of specific affiliations of their game to films made a generation ago. However, the game is undeniably an exercise in cinematic point of view, and even the vaguest acquaintance with the Hollywood style is enough for a player to appreciate *Myst*'s appropriation and remediation of it. The feeling of

immediacy in *Myst,* as in other games of this genre, is generated in large part by the player's expectations derived from the medium of film. It is not really as if the player were on Myst island, which after all looks like no island on earth; it is as if the player were in a film about Myst island. The game can only attempt to satisfy the viewer's desire for immediacy by seeming to put her in a film. Her sense of immediacy comes only through an awareness of mediation.

Myst is by no means the only example of a computer game that remediates film, although it is unusually resonant with the history of film. Myst's sequel, *Riven,* appears to reiterate the strategy of the first game, employing the same interface of pointing and clicking through static images (and in some cases video). But the images are more photorealistic and the game in general is even more calculated in its pursuit of immediacy.

We might also have examined *The Last Express,* which is more overtly filmic than *Myst* or *Riven.* Although the characters and backgrounds are graphic stills and animations (in some cases generated from filmed figures by motion capture), the mise-en-scène and the "camera shots" are entirely consistent with the Hollywood style (fig. 4.6). The player clearly feels herself to be in a film—as usual, a film of mystery or detection. The plot recalls Hitchcock or Graham Greene: the player is given the role of an American expatriate who must assume the identity of his friend aboard the Orient Express on the eve of World War I. At the beginning, the American character knows nothing about the plot in which he is implicated with the discovery of his friend's murder. In typical Hitchcock fashion, he must learn more while avoiding arrest by the police and whatever danger killed his friend. He must learn in real time as the train moves across Europe—by walking up and down the corridors, meeting people who seem to know him, and eavesdropping on conversations that may provide useful information. One of the most compelling features of *The Last Express* is the way in which a filmic sense of plot is integrated with the monitoring function that computer games have in common with television.

In addition to such resonant examples as *Myst* and *The Last Express,* there are now hundreds of less innovative games, many based explicitly on Hollywood originals. Some of these, such as *Blade Runner,* use three-dimensional graphics to recreate the atmosphere and cinematic style of the original film. Others string together segments of live-action film, as does *Star Trek Borg: The Interactive Movie,* which is shot entirely from the first-person point of view of the player as a character.

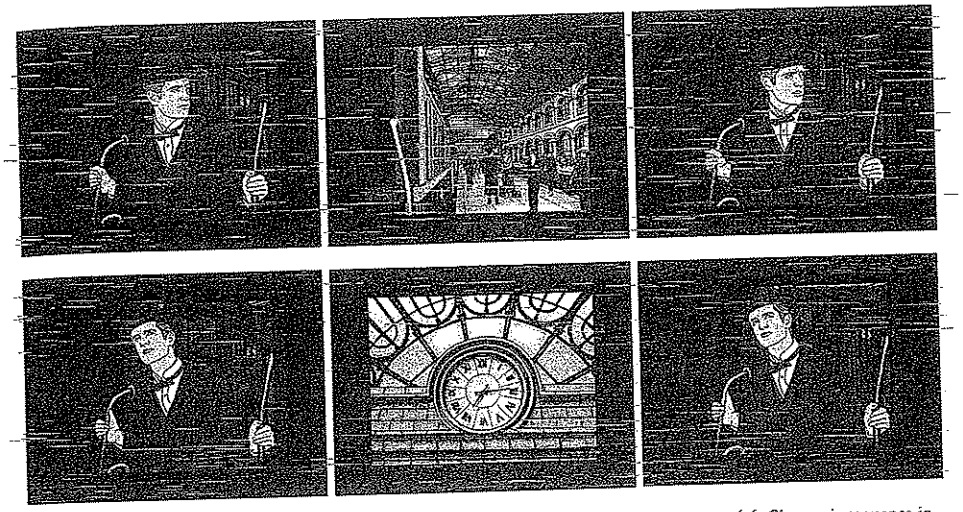


Figure 4.6 Cinematic sequence in *The Last Express.* Graphics/images courtesy of The Last Express ®, a game by Jordan Mechner. © 1997 Broderbund Software, Inc. All rights reserved. Used by permission.

Just as photorealism has defined reality as being in a photograph, interactive films define it as being in a movie. In games such as *Borg,* the player as character is addressed by fellow characters in the scenes, and her choices change the course of events. Typically, conventional filmed scenes establish the narrative line, while the player's action at various decision points will determine which filmed scenes will be presented next. Although the interaction between the player and the filmed scene is clumsy, the goal of this genre is to close such gaps and give the player the sense that she has "fallen into a movie." Role-playing computer games are attempting to move from hypermediacy to immediacy by concealing the signs of their mediation.

Sex, Violence, and Computer Games

Computer games have become popular visual media, and so erotic and violent computer games are open to the same pressure for public censorship that affects film and television. The charge that the games promote violence in society has been repeated since the early 1980s, even by a surgeon general of the United States (Herz 1997, 184), when action games became graphically sophisticated. In addition, religious conservatives and some feminists are critical of erotic games. Computer games come under attack precisely because they remediate the two genres (film and television) that American society has come to regard as imme-

diate and therefore potentially threatening. Books are not censored as strictly as film and television because for our visual culture the written word does not have the immediacy that a moving picture has.

In fact, mainstream American culture seems to have established a hierarchy of media according to their assumed immediacy, a hierarchy revealed in particular by erotic representation. Written or printed pornography without illustrations is regarded as the least immediate. Graphic pornography, such as comic books and illustrated sex manuals, comes next. The major cultural line is clearly crossed with photography. Erotic photographs are subject to censorship or possible criminal charges in ways that graphic art and books no longer are. This cultural reaction stems from a belief in the immediacy of photography. The assumption is that the human models must have actually performed the act revealed in the photograph and that the image is caused by the reflected light that traveled from their bodies to the film. It is as if the erotic impulse could pass through the photograph to touch the viewer. Film and video are even more threatening because they are regarded as photographs in motion.

The place of digital technology in this hierarchy has been shifting over the past two decades. When the technology was used primarily to store and retrieve alphanumeric information, the closest analogy was the book. When digital technology became graphic, it could take on the cultural status of erotic picture books or photographs. Now, computer applications are setting these erotic graphics and digitized images in motion, with, as always, the promise of an interactivity not possible with linear video. As the computer offers greater visual immediacy, it becomes a greater threat to those in our culture who fear erotic immediacy.

Pornography has been among the first expressions of two recent media, the VCR and the graphical World Wide Web, as well as the stereoscope in the nineteenth century. It is true that in the last two centuries practitioners of each new visual medium have sought out content that will demonstrate its powers of immediacy, so that pornography has been one (tempting) test of immediacy. Today, enthusiasts for computer graphics and virtual reality hold out eroticism as an indication of progress, when they speak of cybersex or "teledildonics" (Rheingold 1991, 345–353). Depictions of violence offer another test of immediacy, one that for our culture is somehow felt to be less threatening than sex. Hence, scenes of violence permit popular film, television, and now computer games to demonstrate their powers of immediacy before a wider audience.

Designers in digital media can choose to represent sex through either the logic of transparency or the logic of hypermediacy. The obvious impulse is to seek immediacy through transparency, to try to erase the interface from the user's consciousness so that the experience seems as authentic as possible. In fact, in choosing to remediate film, the computer game designer is also choosing to reenact the sexually aggressive male gaze that has been associated with traditional film. Ⓟ p. 78 Erasure of the medium is difficult for computer games, as it is for film, because in both the experience must be represented visually without the crucial sense of touch. Feminist critics have argued that film and computer environments are disembodied visual experiences. Ⓟ p. 236 In the case of film, the camera work—point-of-view shots, unusual camera angles, and so on—is used to attempt to make up for the lack of the body. These shots are set up in the name of transparency but often create a hypermediated effect. There is, for example, an erotic cliché in Hollywood cinema, in which the camera moves with such intimacy over entangled bodies that it is difficult to determine exactly what part of whose body is being viewed. The bodies become abstract forms, making the viewer aware of the medium of film. It is perhaps not surprising that film would use detailed editing to strive for the immediacy of sex. Computer games, which still cannot match professional film in camera work and editing, rely instead on their special claim to immediacy through interactivity. They allow the player to intervene in the action and so to define a role unlike the one offered by film, video, or photography.

One of the early erotic programs, *Virtual Valerie,* offers a simple branching structure and graphics primitive by today's standards. It remains interesting, however, for the way in which it oscillates between transparency and hypermediacy. Terry Harpold (1998) has called *Valerie* an example of "programmed failure," because the first release was programmed to reboot the computer if the player failed to satisfy Valerie. This failure abruptly denies the player any illusion of immediacy and reminds him that he is merely interacting with a computer program.

Erotic computer games, such as *Valerie,* promise immediacy through transparency, but this promise is always compromised by the failure of the interface to remain transparent, just as film or video sex is compromised by its failure. The result is often, perhaps always, that the program reverts to its other strategy of hypermediacy—poking fun at its own failure or using multimedia or self-conscious camera work to call attention to itself as a medium. Representations of violence also revert to hypermediacy, in computer games as in film. The violence is

stylized, performed by cartoon-like characters and controlled by elaborate, "unrealistic" rules of interaction (with joystick, keyboard, or mouse). Games that depict flight simulation in jet fighters (such as *A-10 Attack!*) revel in the hypermediacy of violence, as the players must destroy their targets by engaging the complicated cockpit controls of the jet.

The Social Spaces of Computer Games

Arcade games, home video games, and desktop computer games each operate within their own social space. Arcade games are usually grouped in a commercial space, such as a shopping mall or an airport. © p. 166 An arcade hall is a collection of mechanical, mechanical-electronic, and fully electronic games, in which the electronic versions remediate the earlier mechanical forms such as pinball. All the games together create a frenzied atmosphere of light and sound, the young adolescent equivalent of nightclubs, which the players are too young to visit. Nightclubs, of course, with their rock music and elaborate lighting effects, are also experiments in hypermediacy. Home video games must be played where the television is located, which is often a relatively large and public room. Although only one or two people can actively participate, everyone who sits in or walks through the room shares the experience of the game. In an action game, everyone in the room gets caught up in the act of monitoring the environment. As with conventional television, the home video game becomes the focus of the room's attention and redefines the social space. Desktop computer games, played where the computer is located in an office or perhaps a bedroom, are comparatively antisocial, for they are often designed for a single player.

On the other hand, desktop games may use networking to expand their social space beyond the confines of the office or bedroom (Foster 1997). *Myst,* with no network connection and providing only for a solitary player occupying a single (though mobile) point of view, cannot begin to address the social dimension of film, the collective experience of an audience. Ironically, the violent and tremendously popular *Doom* (and its successor, *Quake*) is in this sense more socially conscious than *Myst.* With *Doom* you can play with one or more networked partners, with whom you share the work of eliminating monsters, and, if you get in the way of the other players' weapons, you too can be eliminated. *Doom* defines community as a community of killers, the high-tech version of a tribe of paleolithic hunters. Like MUDs and MOOs, *Doom* is socially shared in another sense. It allows experienced users to build new architectural "levels," in which the game of destruction can continue. There is an entire community of such users on the Internet who construct and share the vast environment that *Doom* has become. The game's capacity to absorb authors and forge them into a community is in fact an implied improvement over traditional cinema, in which the viewers cannot reshape or add to the narrative structure. Networked games make a claim to improve on the social practice not only of other computer games, but of television and film as well.

The Internet promises to assimilate the social space of gaming to the space of MUDs and MOOs, as computer games connected to the network can serve as sites for "virtual communities." According to its promotional web site, the role-playing game *Ultima Online*

> *allows literally thousands of people to exist simultaneously in the same fantasy game world over the Internet.*
>
> *Players can enjoy true social interaction with other participants in real time—form adventuring parties, engage in battles with other players, take on perilous quests, or chat in a tavern over a goblet of virtual wine.*
>
> *Other elements of the game constantly evolve—a functioning virtual ecology drives monsters to roam in search of food if it's scarce, and world events are inter-related through a closed economic system and limited resources.*
>
> Ultima Online *allows players to indulge in a continuous, ever-changing game world, complete with day and night, light and shadow effects, 3-D terrain and 16-bit color SVGA graphics. (http://www.owo.com/info/index.html January 11, 1998)*

Like MUDs and MOOs, *Ultima Online* and other such game worlds promise transparent immediacy through real-time interactive graphics or text. (Yet promises of transparency and hypermediacy are surprisingly juxtaposed. *Ultima*'s virtual kingdom comes complete with "day and night" as well as sixteen-bit color graphics.) Like other manifestations of cyberspace, a networked role-playing game such as *Ultima Online* offers its players a world parallel to, yet distinct from, their contemporary social and physical space, a world with its own ecology, economics, and perhaps even physics. The rhetoric of escape is common among enthusiasts for many forms of cyberspace: virtual reality, MUDs and MOOs, role-playing games, and even newsgroups and email. All of these manifestations are supposed to provide a new and authentic experience while at the same time they divorce us from the physical world.

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Arcade games, home video games, and desktop computer games each operate within their own social space. Arcade games are usually grouped in a commercial space, such as a shopping mall or an airport. ▷ p. 166 An arcade hall is a collection of mechanical, mechanical-electronic, and fully-electronic games, in which the electronic versions remediate the earlier mechanical forms such as pinball. All the games together create a frenzied atmosphere of light and sound, the young adolescent equivalent of nightclubs, which the players are too young to visit. Nightclubs, of course, with their rock music and elaborate lighting effects, are also experiments in hypermediacy. Home video games must be played where the television is located, which is often a relatively large and public room. Although only one or two people can actively participate, everyone who sits in or walks through the room shares the experience of the game. In an action game, everyone in the room gets caught up in the act of monitoring the environment. As with conventional television, the home video game becomes the focus of the room's attention and redefines the social space. Desktop computer games, played where the computer is located in an office or perhaps a bedroom, are comparatively antisocial, for they are often designed for a single player.

On the other hand, desktop games may use networking to expand their social space beyond the confines of the office or bedroom (Foster 1997). *Myst*, with no network connection and providing only for a solitary player occupying a single (though mobile) point of view, cannot begin to address the social dimension of film, the collective experience of an audience. Ironically, the violent and tremendously popular *Doom* (and its successor, *Quake*) is in this sense more socially conscious than *Myst*. With *Doom* you can play with one or more networked partners, with whom you share the work of eliminating monsters, and, if you get in the way of the other players' weapons, you too can be eliminated. *Doom* defines community as a community of killers, the high-tech version of a tribe of paleolithic hunters. Like MUDs and MOOs, *Doom* is socially shared in another sense. It allows experienced users to build new architectural "levels," in which the game of destruction can continue. There is an entire community of such users on the Internet who construct and share the vast environment that *Doom* has become. The game's capacity to absorb authors and forge them into a community is in fact an implied improvement over traditional cinema, in which the viewers cannot reshape or add to the narrative structure. Networked games make a claim to improve on the social practice not only of other computer games, but of television and film as well.

The Internet promises to assimilate the social space of gaming to the space of MUDs and MOOs, as computer games connected to the network can serve as sites for "virtual communities." According to its promotional web site, the role-playing game *Ultima Online*

> *allows literally thousands of people to exist simultaneously in the same fantasy game world over the Internet.*
>
> *Players can enjoy true social interaction with other participants in real time—form adventuring parties, engage in battles with other players, take on perilous quests, or chat in a tavern over a goblet of virtual wine.*
>
> *Other elements of the game constantly evolve—a functioning virtual ecology drives monsters to roam in search of food if it's scarce, and world events are inter-related through a closed economic system and limited resources.*
>
> Ultima Online *allows players to indulge in a continuous, ever-changing game world, complete with day and night, light and shadow effects, 3-D terrain and 16-bit color SVGA graphics.* (*http://www.owo.com/info/index.html January 11, 1998*)

Like MUDs and MOOs, *Ultima Online* and other such game worlds promise transparent immediacy through real-time interactive graphics or text. (Yet promises of transparency and hypermediacy are surprisingly juxtaposed. *Ultima*'s virtual kingdom comes complete with "day and night" as well as sixteen-bit color graphics.) Like other manifestations of cyberspace, a networked role-playing game such as *Ultima Online* offers its players a world parallel to, yet distinct from, their contemporary social and physical space, a world with its own ecology, economics, and perhaps even physics. The rhetoric of escape is common among enthusiasts for many forms of cyberspace: virtual reality, MUDs and MOOs, role-playing games, and even newsgroups and email. All of these manifestations are supposed to provide a new and authentic experience while at the same time they divorce us from the physical world.