

*Introduction: The Double Logic of Remediation*

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"This is not like TV only better," says Lenny Nero in the futuristic film *Strange Days*. "This is life. It's a piece of somebody's life. Pure and uncut, straight from the cerebral cortex. You're there. You're doing it, seeing it, hearing it . . . feeling it." Lenny is touting to a potential customer a technological wonder called "the wire." When the user places the device over her head, its sensors make contact with the perceptual centers in her brain. In its recording mode, the wire captures the sense perceptions of the wearer; in its playback mode, it delivers these recorded perceptions to the wearer. If the ultimate purpose of media is indeed to transfer sense experiences from one person to another, the wire threatens to make all media obsolete. Lenny mentions television, but the same critique would seem to apply to books, paintings, photographs, film, and so on. The wire bypasses all forms of mediation and transmits directly from one consciousness to another.

The film *Strange Days* is less enthusiastic about the wire than Lenny and his customers. Although the wire embodies the desire to get beyond mediation, *Strange Days* offers us a world fascinated by the power and ubiquity of media technologies. Los Angeles in the last two days of 1999, on the eve of "2K," is saturated with cellular phones, voice- and text-based telephone answering systems, radios, and billboard-sized television screens that constitute public media spaces. In this media-filled world, the wire itself is the ultimate mediating technology, despite—or indeed because of—the fact that the wire is designed to efface itself, to disappear from the user's consciousness. When Lenny coaches the "actors" who will appear in a pornographic recording, it becomes clear that the experience the wire offers can be as contrived as a traditional film. Although Lenny insists that the wire is

Figure I.1 A virtual reality head-mounted display. Courtesy of Professor Larry Hodges, GVU Center, Georgia Institute of Technology.



“not TV only better,” the film ends up representing the wire as “film only better.” When Lenny himself puts on the wire and closes his eyes, he experiences the world in a continuous, first-person point-of-view shot, which in film criticism is called the “subjective camera.”

*Strange Days* captures the ambivalent and contradictory ways in which new digital media function for our culture today. The film projects our own cultural moment a few years into the future in order to examine that moment with greater clarity. The wire is just a fanciful extrapolation of contemporary virtual reality, with its goal of unmediated visual experience. The contemporary head-mounted display of virtual reality is considerably less comfortable and fashionable (fig. I.1), and the visual world it generates is far less compelling. Still, contemporary virtual reality is, like the wire in *Strange Days*, an experiment in cinematic point of view. Meanwhile, the proliferation of media in 2K L.A. is only a slight exaggeration of our current media-rich environment, in which digital technologies are proliferating faster than our

cultural, legal, or educational institutions can keep up with them. In addressing our culture's contradictory imperatives for immediacy and hypermediacy, this film demonstrates what we call a double logic of *remediation*. Our culture wants both to multiply its media and to erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them.

In this last decade of the twentieth century, we are in an unusual position to appreciate remediation, because of the rapid development of new digital media and the nearly as rapid response by traditional media. Older electronic and print media are seeking to reaffirm their status within our culture as digital media challenge that status. Both new and old media are invoking the twin logics of immediacy and hypermediacy in their efforts to remake themselves and each other. To fulfill our apparently insatiable desire for immediacy, "live" point-of-view television programs show viewers what it is like to accompany a police officer on a dangerous raid or to be a skydiver or a race car driver hurtling through space. Filmmakers routinely spend tens of millions of dollars to film on location or to recreate period costumes and places in order to make their viewers feel as if they were "really" there. "Webcams" on the Internet pretend to locate us in various natural environments—from a backyard bird feeder in Indianapolis (Fig. I.2) to a panorama in the Canadian Rockies (Fig. I.3). In all these cases, the logic

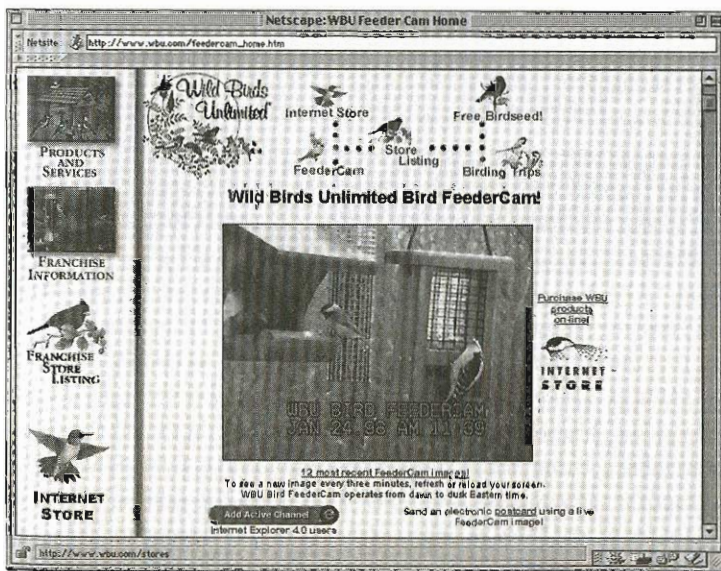
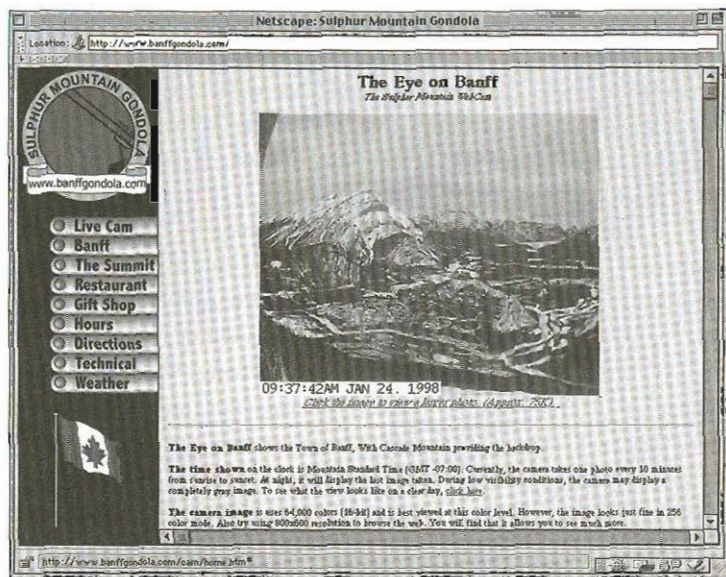


Figure I.2 Bird feeder webcam: the view is updated every three minutes. [http://www.wbu.com/feedercam\\_home.htm](http://www.wbu.com/feedercam_home.htm) January 24, 1998. © 1997, Wild Birds Unlimited. All rights reserved. Used by permission.

Figure I.3 Sulphur Mountain webcam, providing a repeatedly updated view of a mountain in the Canadian Rockies in Banff, Alberta. <http://www.banffgondola.com/> January 24, 1998. © 1998, Sulphur Mountain Gondola. All rights reserved. Used by permission.



of immediacy dictates that the medium itself should disappear and leave us in the presence of the thing represented: sitting in the race car or standing on a mountaintop.

Yet these same old and new media often refuse to leave us alone. Many web sites are riots of diverse media forms—graphics, digitized photographs, animation, and video—all set up in pages whose graphic design principles recall the psychedelic 1960s or dada in the 1910s and 1920s (Fig. I.4; Fig. I.5). Hollywood films, such as *Natural Born Killers* and *Strange Days*, mix media and styles unabashedly. Televised news programs feature multiple video streams, split-screen displays, composites of graphics and text—a welter of media that is somehow meant to make the news more perspicuous. Even webcams, which operate under the logic of immediacy, can be embedded in a hypermediated web site (Fig. I.6), where the user can select from a “jukebox” of webcam images to generate her own paneled display.

As the webcam jukebox shows, our two seemingly contradictory logics not only coexist in digital media today but are mutually dependent. Immediacy depends on hypermediacy. In the effort to create a seamless moving image, filmmakers combine live-action footage with computer compositing and two- and three-dimensional computer graphics. In the effort to be up to the minute and complete, television

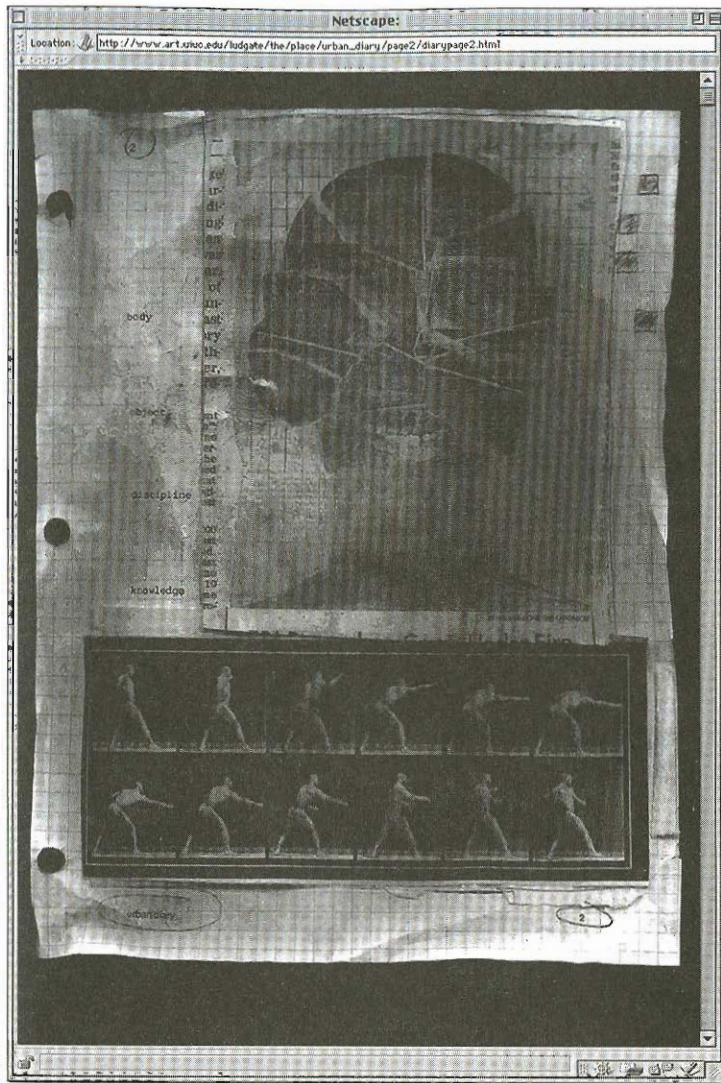


Figure I.4 A page from Joseph Squire's *Urban Diary*. [http://gertrude.art.uiuc.edu/ludgate/the/place/urban\\_diary/intro.html](http://gertrude.art.uiuc.edu/ludgate/the/place/urban_diary/intro.html) January 24, 1998. © 1995 Urban Desires. Used by permission.

Figure I.5 An image from the RGB Gallery at the Hotwired web site: a collection of digital art. <http://www.hotwired.com/rgb/opp/> ++++++ January 24, 1998. © 1994–1998 Wired Digital, Inc. All rights reserved.

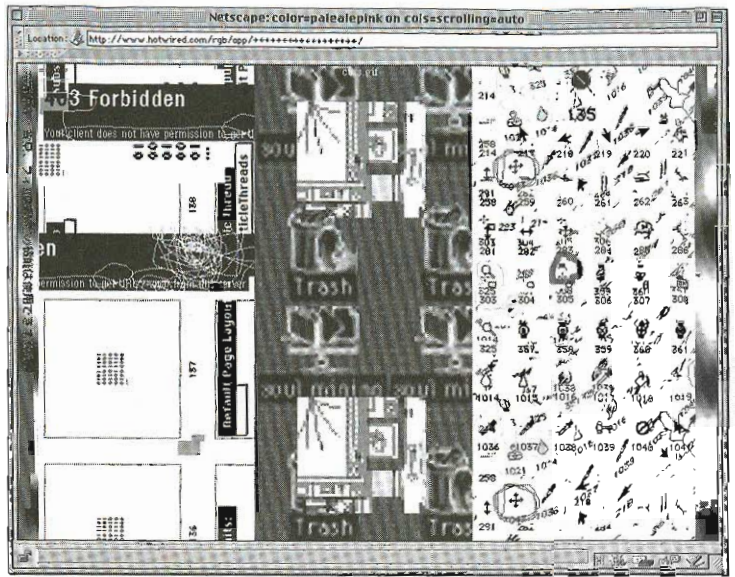


Figure I.6 This webcam jukebox allows the user to combine three individual webcams of her choosing. <http://wct.images.com/jukebox> January 29, 1998. © 1998, Kamal A. Mostafa. All rights reserved. Used by permission.

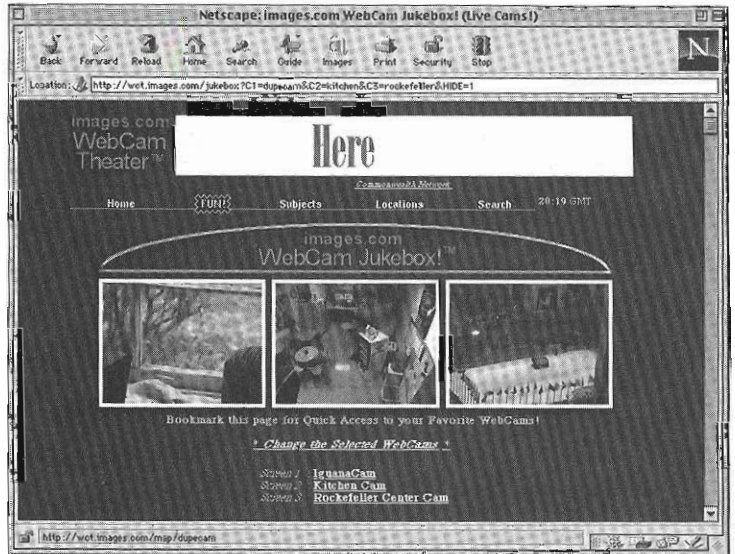




Figure I.7 The CNN Interactive web site. © 1998 Cable News Network, Inc. All rights reserved. Used by permission of CNN.

news producers assemble on the screen ribbons of text, photographs, graphics, and even audio without a video signal when necessary (as was the case during the Persian Gulf War). At the same time, even the most hypermediated productions strive for their own brand of immediacy. Directors of music videos rely on multiple media and elaborate editing to create an immediate and apparently spontaneous style; they take great pains to achieve the sense of “liveness” that characterizes rock music. The desire for immediacy leads digital media to borrow avidly from each other as well as from their analog predecessors such as film, television, and photography. Whenever one medium seems to have convinced viewers of its immediacy, other media try to appropriate that conviction. The CNN site is hypermediated—arranging text, graphics, and video in multiple panes and windows and joining them with numerous hyperlinks; yet the web site borrows its sense of immediacy from the televised CNN newscasts. At the same time televised newscasts are coming to resemble web pages in their hypermediacy (fig. I.7 and I.8). The team of web editors and designers, working in the same building in Atlanta from which the television news networks are also administered, clearly want their technology to be “television only better.” Similarly,



Figure 1.8 CNN Headline News.  
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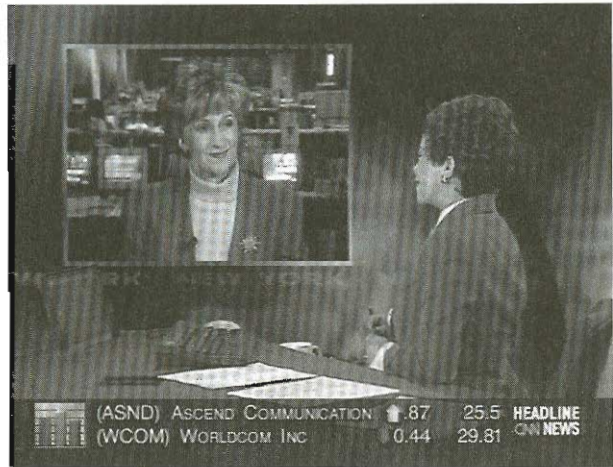
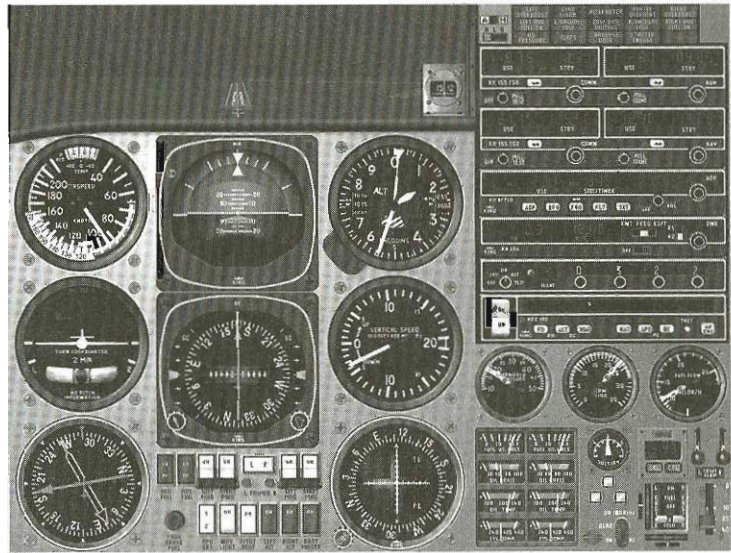


Figure 1.9 Photorealistic Piper Seneca III Module: the interface for a flight simulator. © 1998 Initiative Computing AG, Switzerland. Reprinted with permission.



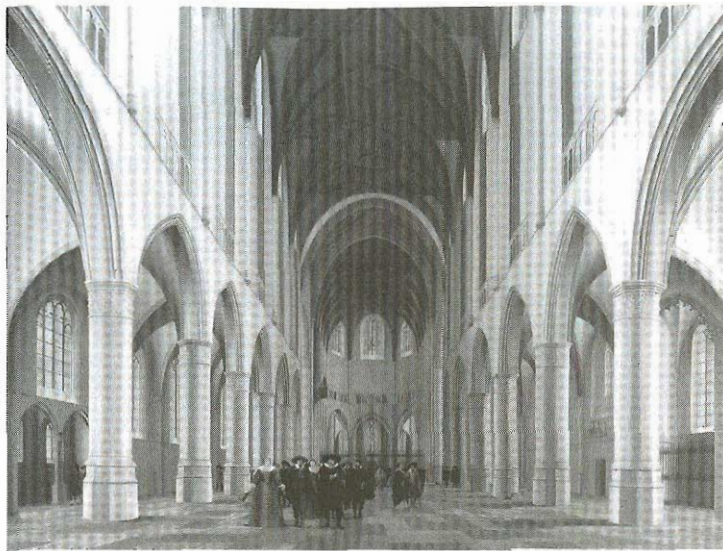
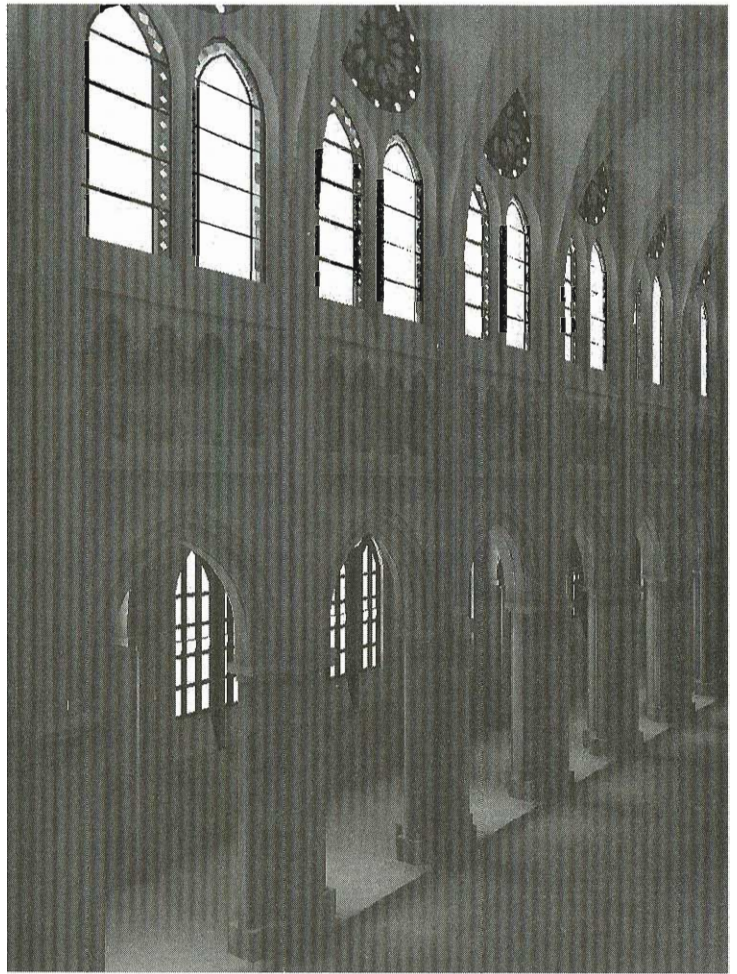


Figure I.10 Saenredam, Pieter Jansz. "S. Bavo in Haarlem" 1631. The John G. Johnson Collection, Philadelphia Museum of Art. Used by permission.

one of the most popular genres of computer games is the flight simulator (fig. I.9). The action unfolds in real time, as the player is required to monitor the instruments and fly the plane. The game promises to show the player "what it is like to be" a pilot, and yet in what does the immediacy of the experience consist? As in a real plane, the simulated cockpit is full of dials to read and switches to flip. As in a real plane, the experience of the game is that of working an interface, so that the immediacy of this experience is pure hypermediacy.

Remediation did not begin with the introduction of digital media. We can identify the same process throughout the last several hundred years of Western visual representation. A painting by the seventeenth-century artist Pieter Saenredam, a photograph by Edward Weston, and a computer system for virtual reality are different in many important ways, but they are all attempts to achieve immediacy by ignoring or denying the presence of the medium and the act of mediation. All of them seek to put the viewer in the same space as the objects viewed. The illusionistic painter employs linear perspective and "realistic" lighting (fig. I.10), while the computer graphics specialist mathematizes linear perspective and creates "models" of shading and illumination (fig. I.11; plate 1). Furthermore, the goal of the computer graphics specialist is to do as well as, and eventually better than, the painter or even the photographer.

Figure I.11 A photorealistic computer graphic: the nave of Chartres Cathedral, by John Wallace and John Lin. © 1989, Hewlett-Packard Co. Used by permission.



Like immediacy, hypermediacy also has its history. A medieval illuminated manuscript, a seventeenth-century painting by David Bailly, and a buttoned and windowed multimedia application are all expressions of a fascination with media. In medieval manuscripts, the large initial capital letters may be elaborately decorated, but they still constitute part of the text itself, and we are challenged to appreciate the integration of text and image (fig. I.12; plate 2). In many multimedia applications, icons and graphics perform the same dual role (as in figure I.13; plate 3), in which the images peek out at us through the word ARKANSAS. This dual role has a history in popular graphic design, as a



Figure I.12 A page from a Book of Hours, circa 1450. © Robert W. Woodruff Library, Emory University. Used by permission.

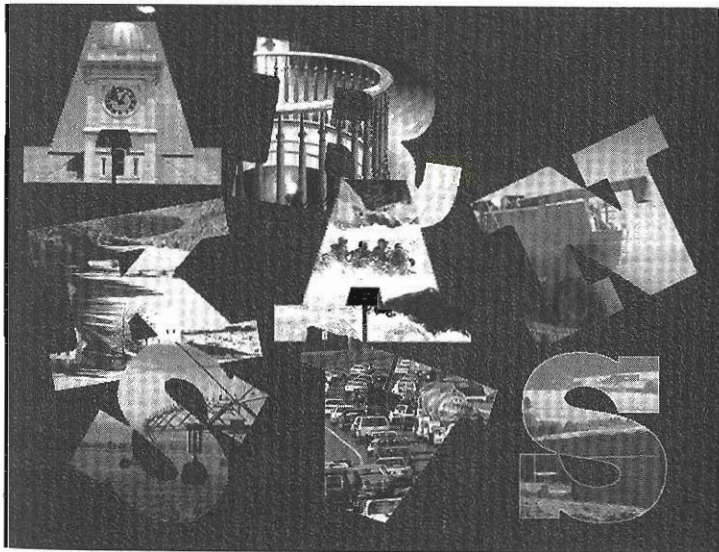
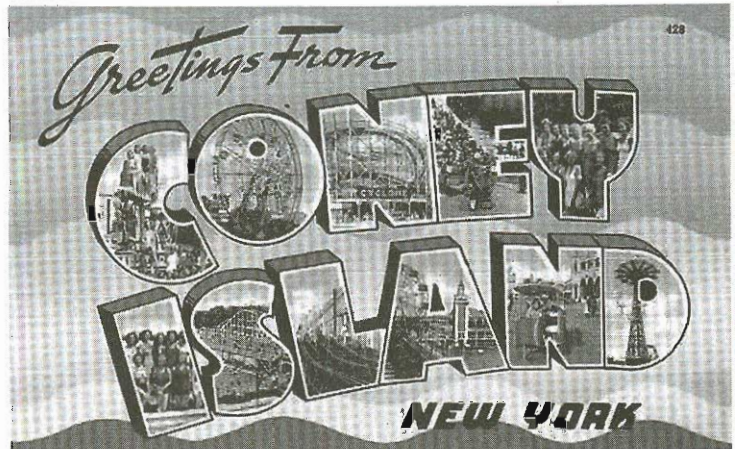



Figure I.13 Arkansas: the splash (opening) screen for a multimedia celebration of the state.

Figure I.14 A Coney Island postcard from the 1910s. <http://naid.spsr.ucla.edu/coneyisland/histarc.htm> January 24, 1998.



postcard of Coney Island from the early twentieth-century shows (fig. I.14). Today as in the past, designers of hypermediated forms ask us to take pleasure in the act of mediation, and even our popular culture does take pleasure. Some hypermediated art has been and remains an elite taste, but the elaborate stage productions of many rock stars are among many examples of hypermediated events that appeal to millions.

In the chapters that follow, we examine the process of remediation in contemporary media. In part I, we place the concept of remediation within the traditions of recent literary and cultural theory. Readers who are less interested in theory may want to turn directly to part II, which illustrates the work of remediation in such media as computer graphics, film, television, the World Wide Web, and virtual reality. These illustrative chapters should make sense even without the fuller explanations of transparent immediacy, hypermediacy, and remediation provided in part I. In part III, which is again more theoretical, we consider how new digital media are participating in our culture's redefinition of self. Because readers may choose not to read the book in linear order, we have provided references—the printed equivalent of hyperlinks—to connect points made in the theoretical chapters with examples in the illustrative chapters, as well as some references from each illustrative chapter to others. This link directs the reader to part II.  **p. 85**

Our primary concern will be with visual technologies, such as computer graphics and the World Wide Web. We will argue that these new media are doing exactly what their predecessors have done: pre-

senting themselves as refashioned and improved versions of other media. Digital visual media can best be understood through the ways in which they honor, rival, and revise linear-perspective painting, photography, film, television, and print. No medium today, and certainly no single media event, seems to do its cultural work in isolation from other media, any more than it works in isolation from other social and economic forces. What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media.

*Networks of Remediation*

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Television, film, computer graphics, digital photography, and virtual reality: our culture recognizes and uses all of these technologies as media. This cultural recognition comes not only from the way in which each of the technologies functions in itself, but also from the way in which each relates to other media. Each participates in a network of technical, social, and economic contexts; this network constitutes the medium as a technology.

#### WHAT IS A MEDIUM?

We offer this simple definition: a medium is that which remediates. It is that which appropriates the techniques, forms, and social significance of other media and attempts to rival or refashion them in the name of the real. A medium in our culture can never operate in isolation, because it must enter into relationships of respect and rivalry with other media. There may be or may have been cultures in which a single form of representation (perhaps painting or song) exists with little or no reference to other media. Such *isolation does not seem possible for us today*, when we cannot even recognize the representational power of a medium except with reference to other media. If someone were to invent a new device for visual representation, its inventors, users, and economic backers would inevitably try to position this device over against film, television, and the various forms of digital graphics. They would inevitably claim that it was better in some way at achieving the real or the authentic, and their claim would involve a redefinition of the real or authentic that favors the new device. Until they had done this, it would not be apparent that the device was a medium at all.



In the past fifty years, we have seen the digital computer undergo this process of "mediatization." The programmable digital computer was invented in the 1940s as a calculating engine (ENIAC, EDSAC, and so on); by the 1950s, the machine was also being used for billing and accounting in large corporations and bureaucracies. At that time, proponents began to understand the computer as a new writing technology; that was in fact the message of the artificial intelligence movement, which began as early as 1950 with A. M. Turing's famous essay, "Computing Machinery and Intelligence." The important cultural contribution of artificial intelligence was not that the computer could be a new kind of mind, but rather that it could be a symbol manipulator and could therefore remediate earlier technologies of arbitrary symbol manipulation, such as handwriting and printing.

As long as computers remained expensive and rare, available only to a limited group of experts in large institutions, their remediating functions were limited. In the 1970s, the first word processors appeared, and in the 1980s the desktop computer. The computer could then become a medium because it could enter into the social and economic fabric of business culture and remediate the typewriter almost out of existence.

Although the computational device itself, even the "user-friendly" word processor, was not a medium, that device, together with its social and cultural functions, did constitute a new medium. (Furthermore, in the 1980s and 1990s the digital computer has taken on new technical and social functions and is being constituted as a second medium, or series of media, for visual or sensory representation.)

The cultural work of defining a new medium may go on during and in a sense even before the invention of the device itself. The technologists working on the device may have some sense of where it might fit in the economy of media, what it might remediate, as fifteenth- and sixteenth-century printers did in their project to remediate the manuscript and as the inventors of photography did in the nineteenth century. Or they might be working on a device for a different purpose altogether, and they or someone else might realize its potential for constituting a new medium. In some cases the potential might emerge only slowly as the device evolved and changed (as with radio and the telephone). All sorts of cultural relationships with existing media are possible. The only thing that seems impossible is to have no relationship at all.

The cultural studies of popular media (for example, *Media Culture* by Douglas Kellner) have been right to insist on close ties between the formal and material characteristics of media, their "content," and their economic and social functions. Indeed, the various elements are so tightly bound that they can never be entirely separated; a medium is a hybrid in Latour's sense. To say, for example, that the commercial funding of American television is the cause of its insipid content (or induces individuals to identify with dominant ideologies, or whatever) is already to separate the technical form of television (as the creation and distribution of programs on television sets) from its economic expression. In fact, commercial financing is an inseparable aspect of the medium of American television, as are its many social uses (TV dinners, occupying the children, defining shopping habits). We do not mean that one could not design a different system, say public financing, but rather that, in the unlikely event that it were ever established, public financing would redefine American television as a technology or medium. This does not mean that the mode of financing *causes* American television to be what it is, but rather that the character of a technology such as television is articulated through a network of formal, material, and social practices.

Whenever we focus on one aspect of a medium (and its relationships of remediation with other media), we must remember to include its other aspects in our discourse. In the case of film, for example, when we look at what happens on the screen (in a darkened theater), we can see how film refashions the definitions of immediacy that were offered by stage drama, photography, and painting. However, when the film ends, the lights come on, and we stroll back into the lobby of, say, a suburban mall theater, we recognize that the process of remediation is not over. We are confronted with all sorts of images (posters, computer games, and videoscreens), as well as social and economic artifacts (the choice of films offered and the pricing strategy for tickets and refreshments). **p. 173** These do not simply provide context for the film itself; they take part in the constitution of the medium of film as we understand it in the United States today. We must be able to recognize the hybrid character of film without claiming that any one aspect is more important than the others. This is the claim implicit in most cultural studies analyses of popular media: that film and television embody or carry economic and cultural ideologies and that we should study media principally in order to uncover and learn to resist their ideologies

(Kellner, 1995). Although it is true that the formal qualities of the medium reflect their social and economic significance, it is equally true that the social and economic aspects reflect the formal or technical qualities.

#### THE MATERIAL AND ECONOMIC DIMENSIONS OF REMEDIATION

The economic aspects of remediation have already been acknowledged and explored by cultural theorists. Each new medium has to find its economic place by replacing or supplementing what is already available, and popular acceptance, and therefore economic success, can come only by convincing consumers that the new medium improves on the experience of older ones. At the same time, the economic success of workers depends on the new medium's acquired status. Thus, web designers currently command higher salaries than technical writers and graphic designers for print; it is in their interest to promote the belief that digital media can not only replace printed documents, but vastly improve on them.

Similarly, the whole entertainment industry's understanding of remediation as repurposing reveals the inseparability of the economic from the social and material. The entertainment industry defines repurposing as pouring a familiar content into another media form; a comic book series is repurposed as a live-action movie, a televised cartoon, a video game, and a set of action toys. The goal is not to replace the earlier forms, to which the company may own the rights, but rather to spread the content over as many markets as possible. Each of those forms takes part of its meaning from the other products in a process of honorific remediation and at the same time makes a tacit claim to offer an experience that the other forms cannot. Together these products constitute a hypermediated environment in which the repurposed content is available to all the senses at once, a kind of mock *Gesamtkunstwerk*. For the repurposing of blockbuster movies such as the Batman series, the goal is to have the child watching a Batman video while wearing a Batman cape, eating a fast-food meal with a Batman promotional wrapper, and playing with a Batman toy. The goal is literally to engage all of the child's senses.

We can also consider repurposing in microeconomic terms as the refashioning of materials and practices. When artists or technicians create the apparatus for a new medium, they do so with reference to previous media, borrowing and adapting materials and techniques whenever possible. Thus, Gutenberg and the first generation of printers borrowed the letterforms and layout from the manuscript and con-

structured the printed book as the “manuscript only better.” They borrowed the materials too. Paper had long been used for manuscripts, and techniques of binding remained the same (Steinberg, 1959). After winning their rather easy battle of remediation, printers in the late fifteenth and early sixteenth centuries moved away from the manuscript model by simplifying letterforms and regularizing the layout. A manuscript page was dark with the ink of letters formed by hand; these printers learned to use ink sparingly to achieve a highly legible page. In the case of photography, Talbot, one of the pioneers, justified his invention because of his dissatisfaction with a contemporary device for making accurate perspective drawings by hand, and the name “camera” was his remediation of the *camera lucida* (Trachtenberg 1980, 27; Kemp 1990, 200). Film technicians and producers remediated both photography and the practices of stage plays. We have noted that early films were once called photoplays, which expresses this combined remediation; the term *mise-en-scène* was also borrowed from stage production to refer to the film director’s control of the visual appearance. In computer graphics, paint programs borrowed techniques and names from manual painting or graphic design practices: paintbrush, airbrush, color palette, filters, and so on. World Wide Web designers have remediated graphic design as it was practiced for printed newspapers and magazines, which themselves in some cases have reappropriated the graphic design of the World Wide Web.

### THE SOCIAL DIMENSION

The remediation of material practice is inseparable from the remediation of social arrangements, in the first instance because practitioners in the new medium may want to claim the status of those who worked in an earlier medium. Film stars hope to be seen as artists, as skilled as stage actors, and, at least from the 1950s on, many film directors want to be regarded as “authors” of their films. In turn, actors and directors of television dramas want their work to be accorded the status of dramatic film. On stage, in film, or on television, the mark of being a true author or actor is “moving” the audience: offering an experience that the audience finds authentic. Film and television actors and directors could also lay claim to improving on stage drama, in the sense that their newer media handle popular subjects in accessible ways and appeal to a public that twentieth-century stage drama could no longer attract. Meanwhile, computer game makers hope that their interactive products will someday achieve the status of first-run films, and there is even

an attempt to lure film stars to play in these narrative computer productions. Game makers can cite the wide appeal of their games as evidence of the success of their remediations.

The status of the photographer in the nineteenth and twentieth centuries presents a more complicated case. In their rivalry with painting, some photographers (such as Henry Peach Robinson) sought to be regarded as artists, while others (such as Lewis Hine, Edward Weston, and August Sander) promoted themselves instead as social historians or even natural scientists. Their internal disagreements were over both the material and formal basis of their medium and the social nature of the remediation that photography undertook. Meanwhile, the viewer was being refashioned into the role of photographer. Daguerre himself suggested that "everyone, with the aid of the daguerreotype, will make a view of his castle or country-house; people will form collections of all kinds, which will be the more precious because art cannot imitate their accuracy and perfection of detail. . . . The leisured class will find it a most attractive occupation, and although the result is obtained by chemical means, the little work it entails will greatly please ladies" (Trachtenberg 1980, 12–13). Daguerre had from the outset a sense of the social aspects of remediation that his invention would entail, although his "everyone" seemed to include only men and women of the leisured class. The formal remediation—that the daguerreotype captures more detail than a painting—meant that the technology would better serve the needs of the wealthy collector, an emerging, nineteenth-century type. Daguerre may not have been precisely right with his prediction. With Eastman, photography later became a pastime for a larger and less wealthy middle class.<sup>1</sup> The important point is that even one of its inventors realized very early that photography was about social practices as well as technical details.

1. Eastman had figured out how to automate or "blackbox" not only the mechanical but also the commercial aspects of his photographic system (Latour 1987, 115, 122, 124, 131).

The two logics of remediation have a social dimension for the viewers as well as the practitioners. We have so far used the term *immediacy* in two senses: one epistemological, the other psychological. In the epistemological sense, immediacy is transparency: the absence of mediation or representation. It is the notion that a medium could erase itself and leave the viewer in the presence of the objects represented, so that he could know the objects directly. In its psychological sense, immediacy names the viewer's feeling that the medium has disappeared and the objects are present to him, a feeling that his experience is therefore authentic. Hypermediacy also has two corresponding senses. In its epistemological sense, hypermediacy is opacity—the fact that knowl-

edge of the world comes to us through media. The viewer acknowledges that she is in the presence of a medium and learns through acts of mediation or indeed learns about mediation itself. The psychological sense of hypermediacy is the experience that she has in and of the presence of media; it is the insistence that the experience of the medium is itself an experience of the real. The appeal to authenticity of experience is what brings the logics of immediacy and hypermediacy together.

This appeal is socially constructed, for it is clear that not only individuals, but also various social groups can vary in their definitions of the authentic. What seems immediate to one group is highly mediated to another. In our culture, children may interpret cartoons and picture books under the logic of transparent immediacy, while adults will not. Even among adults, more sophisticated groups may experience a media event as hypermediated, while a less sophisticated group still opts for immediacy. In the mid-1990s a film became widely available (even in video stores) that purported to show the autopsy by American doctors of an alien creature. When both sides in the UFO debate pored over the film, their argument really concerned the logic by which the film should be read. Critics were looking for signs of mediation or staging—for example, that the telephone on the wall was of the wrong kind for the supposed date of the autopsy. Believers, on the other hand, were trying to establish that the film was a transparent recording of a “real” event. All debates about UFO films and photographs turn on the question of transparency.

The experience of hypermediacy also depends on the social construction of the media used. Staged rock productions are hypermediated events, which no one interprets as transparent in the sense that the media are to be forgotten or erased. But by entering into an immediate relationship with the media themselves—the sound, the lights, the televised images—rock fans achieve an experience they regard as authentic. Others remain distanced from that experience, either repelled or simply unmoved. This distancing depends at least in part on social grouping. For example, those on the American religious right are compelled by their construction of rock music to remain distanced. They may claim that the sinfulness of rock music lies primarily in its lyrics, but it is the nature of hypermediated experience that really troubles them. Rock music expects, if it does not require, that the viewer/listener be intimately involved in the hypermediacy—that she “abandon herself” to the music. This abandonment is all the more threatening because there is nothing offered beyond the medium—no world into

which the user can enter—as there is in conventional representational media, such as linear-perspective painting. What rock music seems to offer (and indeed what Wagnerian opera offered to the nineteenth-century German audiences, or flute music in the Lydian mode to Plato's Greeks) is pure experience, pure authenticity, real in a sense that the listener's perception cannot itself be deceived.

Photography provides an important example of the social debate that can surround the logics of immediacy and hypermediacy. When Niepce, Daguerre, Talbot, and others claimed immediacy for their new medium, they were seeking to control its social construction. A long and complicated debate followed, with important figures such as Baudelaire arguing in opposition, but in general the case for immediacy succeeded, and Western societies accepted the idea that a photograph truly captures the world. Digital photography is now challenging that claim to immediacy (p. 104), so that a new kind of hybrid is emerging whose social and practical meanings have to be reworked. Even prior to the advent of digital photography, there has been an argument for decades about whether the Western technologies of drawing and photography are governed by convention or by the intrinsic principles of human vision and Euclidean space: whether these techniques capture the world scientifically, as it appears "in the light." Although strict social constructionists and many other postmodern writers take it as dogma that linear-perspective representations are as artificial and arbitrary as any others, some psychologists and art historians still believe otherwise. An empirical test of the question has been to show perspective drawings, photographs, or films to subjects from cultures (often in Africa) that had never seen them. The results of the relatively few experiments have been mixed. When shown a photograph or perspective drawing for the first time, subjects sometimes had trouble interpreting the images, although after a few minutes or a few tries they could handle the images more easily. In other experiments subjects have had little trouble understanding films that employ editing conventions (Hagen 1980, vol. 1; Messaris 1994).

Such experiments suggest to us that neither the social nor the technical aspect of mediation should be reduced to the other. Both Western and African subjects clearly use their innate visual systems to process the information in the image, but it is also clear that the images are socially constructed. For the Westerners, photography and linear-perspective drawing are media that are constructed as transparent. The images are transparent, however, only because Westerners have already

learned to overlook, or “look through,” the conventions that they appear on paper and offer a static, monocular view. When the same images were handed to the African subjects, they were at first experienced as hypermediated. Some of the subjects had never seen paper before, so that the very idea of paper carrying an image was foreign to them (Mesaris 1994). After that initial phase, when the subjects had adjusted and could read the images “properly,” the media would still not necessarily be transparent in our sense, because the African subjects would not have had the opportunity to build the collective response that Western culture now has to perspective painting, photography, and realistic film. However, the fact that the subjects could learn so quickly to interpret the images in the Western fashion indicates that the images do take advantage of properties of the propagation of light that are the same in the developing countries as in the West. What counts as transparent or as hypermediated depends on social construction, but the social construction of immediacy is not arbitrary or oblivious to technical details. It has been relatively easy to construct linear perspective as transparent and natural, precisely because the construction can mobilize the (Western) physics of light and vision.

The social dimension of immediacy and hypermediacy is as important as their formal and technical dimensions. However, there is no need to deny the importance of the latter in order to appreciate the former, no need to reduce the technical and psychological dimensions to the social. It is not helpful to seek to reduce any aspect of media to any other. This applies equally to the economics of media, to which traditional Marxists (and capitalists) seek to reduce all other aspects. Furthermore, by seeking to recognize all aspects of media and mediation, we can best respond to, although we cannot conclusively settle, the vexing question of technological determinism.

#### THE WORK OF ART IN THE AGE OF REMEDIATION

Before taking up the question of technological determinism, we need to say more about remediation's political dimension. Remediation is not replication or mechanical reproduction; however, we cannot discuss its social and political dimensions without pausing to reflect on Walter Benjamin's influential essay “The Work of Art in the Age of Mechanical Reproduction” (1969). Benjamin's argument is that mechanical reproduction produces a fundamental change in the nature of art, a change that destroys the artwork's “aura” by removing it from the context of ritual and tradition in which art had been historically embedded.



Citing photography and especially cinema, Benjamin posits that technology creates a new kind of political or revolutionary potential for mass art, a potential that can also be dangerous, as his concluding discussion of Marinetti and the futurists warns us.

Benjamin's argument that technologies of mechanical reproduction are politically enabling has its counterpart today in the claim by some enthusiasts that new media, particularly the Internet, will bring about a new kind of democracy. For example, according to Howard Rheingold (1994), "The political significance of [computer-mediated communication] lies in its capacity to challenge the existing political hierarchy's monopoly on powerful communications media, and perhaps thus revitalize citizen-based democracy" (14). In the most extreme version of this argument, we find John Perry Barlow proclaiming in his "Declaration of Independence" ([http://www.eff.org/pub/Publications/John.Perry.Barlow/barlow\\_0296.declaration](http://www.eff.org/pub/Publications/John.Perry.Barlow/barlow_0296.declaration) April 17, 1998) that cyberspace is a new political territory in which the laws of industrial capitalism no longer apply and that a new political order lies on (or perhaps just beyond) our monitors. These Internet and new media enthusiasts are more naive, or at least less subtle, than Benjamin, for they are arguing that digital technology offers us a transparent democracy, in which the medium of political representation disappears and citizens can communicate their political will directly with each other or with their government. Benjamin believed that film educates its mass audience through a more complex dynamic.

Benjamin begins with the assertion that film technology, or mechanical reproduction in general, breaks down the aura of the work of art by eliding or erasing the distance between the work and its viewer. Removed from the cathedral or museum, the work of art is now closer to the viewer. At first glance, Benjamin seems to be suggesting that mechanical reproduction is responding to and even satisfying a desire for transparent immediacy—that removing the aura makes the work of art formally less mediated and psychologically more immediate. On the other hand, Benjamin's mechanical reproduction also seems to evoke a fascination with media. In the case of film, he describes the viewer as distracted by the rapid succession of scenes, as simultaneously entranced and aroused by the mediation of film. For just this reason, Benjamin contrasts seeing a film with viewing a painting. Unlike a filmgoer, the viewer of a painting is absorbed into the work, as if the medium had disappeared. Perhaps for Benjamin, the immediacy offered by film is the immediacy that we have identified as growing out of the fascination with media: the acknowledged experience of mediation.

Furthermore, film for Benjamin is a medium that demonstrates the inseparability of technology and reality. He emphasizes the complicated apparatus surrounding the production of film, as a result of which there is no unity or wholeness in the surrounding scene. It requires elaborate camera work, editing, and other forms of reproduction to make film appear seamless, to make its mediation disappear. Ironically, although filmmakers work hard to conceal the signs of material and technological mediation, their final product calls attention (through the rapid succession of images) to its aesthetic, temporal, and formal mediation in a way that traditional painting does not. For Benjamin, the painter and the cameraman practice very different crafts:

*The painter maintains in his work a natural distance from reality, the cameraman penetrates deeply into its web. There is a tremendous difference between the pictures they obtain. That of the painter is a total one, that of the cameraman consists of multiple fragments which are assembled under a new law. Thus, for contemporary man the representation of reality by the film is incomparably more significant than that of the painter, since it offers, precisely because of the thoroughgoing permeation of reality with mechanical equipment, an aspect of reality which is free of all equipment. And that is what one is entitled to ask from a work of art. (233–234)*

Benjamin encourages us to reformulate his question: What are we entitled to ask from a work of art in an “age of remediation”? Benjamin still seems to believe both that it is possible to get past mediation to “an aspect of reality which is free of all equipment” and that political revolution may come about through such an achievement. In a period such as ours today, in which media and the process of mediation are more frankly acknowledged and appreciated, the aesthetic goal and its political consequences seem to be different. The work of art today seems to offer “an aspect of reality which cannot be freed from mediation or remediation,” at the same time that new media seek to present us precisely with “an aspect of reality which is free from all mediation.” Thus remediation does not destroy the aura of a work of art; instead it always refashions that aura in another media form.

#### TECHNOLOGICAL DETERMINISM

If Benjamin's essay has often been read as an expression of the technological determinism implicit in classical Marxist thought, more recent scholars have been concerned to avoid the charge of determinism. Even two decades ago, British Marxist Raymond Williams (1975) made an

influential argument against the notion that new technologies “are discovered, by an essentially internal process of research and development, which then sets the conditions for social change and progress” (13). He was protesting against a view that was popular in the 1960s and 1970s and remains so today. Whether they are blaming or praising technology, politicians, futurologists, and the print and electronic media fall easily into the rhetoric of technological determinism. Enthusiasts for cyberspace such as John Perry Barlow credit the Internet with creating a new culture, while conservative politicians speak as if the Internet itself had called forth a new form of pornography. Meanwhile, Williams and others have convinced almost all historians, social scientists, and humanists, with the result that technological determinism has been one feature of traditional Marxism rejected by postmodern theory and cultural studies. Whenever it is made, the charge is now considered fatal: nothing good can come of technological determinism, because the claim that technology causes social change is regarded as a justification for the excesses of technologically driven capitalism in the late twentieth century.

Williams was reacting above all to McLuhan's (1964) then influential theory of media as “extensions of man.” For Williams, McLuhan had isolated and abstracted media from their social contexts, as if media could work directly on some abstract definition of human nature. Williams (1975) objected that in McLuhan's work, “as in the whole formalist tradition, the media were never really seen as practices. All specific practice was subsumed by an arbitrarily assigned psychic function, and this had the effect of dissolving not only specific but general intentions. . . . All media operations are in effect dissociated; they are simply physical events in an abstracted sensorium, and are distinguishable only by their variable sense-ratios” (127). In *Understanding Media* (1964) McLuhan did often claim that media change us, and he continues to influence popular versions of technological determinism today. Although he was regarded as a radical in the 1960s, McLuhan has now been adopted as a patron saint of the information industry. In the 1960s, his phrase “global village” sounded like a justification of social protest and “flower power.” Today, communications giants happily borrow the phrase in their advertising. The idea that new electronic technologies of communication will determine our social organization is clearly not threatening to corporations that produce and market those technologies.

In *Understanding Media*, on the other hand, McLuhan often notices intricate correspondences involving media and cultural artifacts.

Although Williams is right that McLuhan returns repeatedly to the claim that media bring about cultural change, the chapters of *Understanding Media* are filled with contemporary as well as historical examples, from popular and literary culture. Some of McLuhan's correspondences are still worth considering, for they point to the ways in which one medium remediates others (especially print, radio, film, and television). Often the remediations involve the social practices that accompany media—for example, how a contemporary American family views television or film. We can let go of the premise of cause and effect and still examine the interrelationships among media for which McLuhan argues. We need not be afraid of McLuhan's "formalism," as long as we remember that technical forms are only one aspect of technologies that are simultaneously social and economic. McLuhan's notion that media are extensions of the human sensorium can even be regarded as an anticipation of Donna Haraway's cyborg. McLuhan did bring to our attention the fact that media take their meaning through interactions with the senses and the body, although feminist writers since the 1970s have elaborated this idea in ways that McLuhan did not envision. In short, we can reject McLuhan's determinism and still appreciate his analysis of the remediating power of various media.

We need to keep in mind, however, the other half of Williams's critique. Williams (1975) also warned against the notion of "determined technology [which] has a similar one-sided, one-way version of human process. Determination is a real social process but never . . . [functions] as a wholly controlling, wholly predicting set of causes" (130). He argued that social forces "set limits and exert pressures, but neither wholly control nor wholly predict the outcome" (130).

In an effort to avoid both technological determinism and determined technology, we propose to treat social forces and technical forms as two aspects of the same phenomenon: to explore *digital technologies* themselves as hybrids of technical, material, social, and economic facets. Thus, virtual reality is not only a head-mounted display and computer hardware and software; it is also the sum of the entertainment and training uses to which this hardware and software is put, and it is *the institutional and entrepreneurial capital devoted to these uses*. Finally, virtual reality enacts a subjective, point-of-view aesthetic that our culture has come to associate with new media in general. These facets of the cultural meaning of virtual reality are so closely associated that it is unproductive to try to tease them apart. Like a quark, no one facet can exist in isolation; any argument forceful enough to detach one facet from its network of affiliations would necessarily bind that facet into

some other cultural network. Because our digital technologies of representation are simultaneously material artifacts and social constructions, there is no need to insist on any aspect as cause or effect.

It is difficult, however, to hold in relief all the aspects of a technology at any one rhetorical moment. Readers of this book will find sentences in which a technology is used as the subject of an action verb. We have tried to avoid the most egregious generalizations of the kind that make McLuhan so appalling to Raymond Williams and his followers. When we do write something like “digital media are challenging the status of television and film,” we are asking readers to treat this as shorthand. A longer, and less felicitous, version would be that “the individuals, groups, and institutions that create and use digital media treat these media as improved forms of television and film.” Media *do* have agency, but that agency is constrained and hybrid. To say that digital media “challenge” earlier media is the rhetoric of technological determinism only if technology is considered in isolation. In all cases we mean to say that the agency for cultural change is located in the interaction of formal, material, and economic logics that slip into and out of the grasp of individuals and social groups.

Nevertheless, our rhetoric and our strategy foreground new media in a way that may prove unacceptable to many postmodern theorists, because of their suspicion, inherited in large part perhaps from the influential Frankfurt School, that high technology has become a principal obstacle to social progress and economic justice. We cannot hope to allay this suspicion; in fact, if our argument is successful, we will exacerbate it. We believe that the cultural significance of the new digital media cannot be condemned or praised in isolation, precisely because these media are hybrids that draw on so many aspects of our culture. To condemn new media is to condemn contemporary culture itself—in a kind of jeremiad that has made a few humanists wealthy but has not helped to explain our current cultural moment. We are attempting to explore, not to pass judgment on, the twin logics of remediation at work on the eve of the twenty-first century.

#### THE REMEDIATION OF THE GENDERED GAZE

One more key theoretical issue remains to be touched on: the implications of gender for our understanding of remediation. Among the best-known illustrations of the Renaissance theory of linear perspective is the Dürer woodcut in which the male draftsman objectifies and mathematically dissects his female model (cf. Alpers 1982, 184–185, 187;



Figure 3.1 A draftsman drawing a nude from Albrecht Dürer, *Unterweisung der Messung*, Nuremberg, 1538.

Haraway 1997, 182–183). (See fig. 3.1.) In this image, the artist's desire for immediacy is evident in his clinical gaze, which seems to want to analyze and control, if not possess, its female object. The woodcut suggests the possibility that technologies of transparent immediacy based on linear perspective, such as perspective painting, photography, and film, or computer graphics and virtual reality, may all be enacting the so-called male gaze, excluding women from full participation as subjects and maintaining them as objects.

Beginning with Alberti's window, transparent immediacy itself may be a gendered notion. Martin Jay (1988) has suggested that Albertian technical perspective joined with Descartes's philosophical dualism to constitute "Cartesian perspectivalism"—a way of seeing that characterized Western culture at least until the coming of modernism in the twentieth century (p. 21). Evelyn Fox Keller and Christine Grontkowski (1996) have associated Descartes's dualism with the privileging of the visual and also with Western, masculinist science (187–202). They also point out that "there is a movement among a number of feminists to sharpen what, until now, had only been a vague sentiment . . . : that the logic of the visual is a male logic. According to one critic [Luce Irigaray], what is absent from the logic . . . is women's desire" (187). For these feminists, then, the desire for visual immediacy is a male desire that takes on an overt sexual meaning when the object of representation, and therefore desire, is a woman, as in the Dürer woodcut.

Film is the medium for which feminist theorists have delivered perhaps the most powerful and sustained critique of the male gaze. In

the 1970s, in a now-classic essay, Laura Mulvey argued that Hollywood film almost inevitably enacts that way of looking, because both the camera work and the narrative structure cause the viewers to identify with the usually male main character and to join him in his visual examination of women:

*The actual image of woman as (passive) raw material for the (active) gaze of man takes the argument a step further into the content and structure of representation, adding a further layer of ideological significance demanded by the patriarchal order in its favorite cinematic form—illusionistic narrative film. . . . Although none of these interacting layers is intrinsic to film, it is only in the film form that they can reach a perfect and beautiful contradiction, thanks to the possibility in the cinema of shifting the emphasis of the look. The place of the look defines cinema, the possibility of varying it and exposing it. This is what makes cinema quite different in its voyeuristic potential from, say, striptease, theatre, shows, and so on. Going far beyond highlighting a woman's to-be-looked-at-ness, cinema builds the way she is to be looked at into the spectacle itself. . . . Cinematic codes create a gaze, a world and an object, thereby producing an illusion cut to the measure of desire. (1989, 25)*


The desire of which Mulvey speaks certainly seems to be what we call the desire for immediacy, which then becomes a male desire to possess, or perhaps to destroy, the female. The case is clearest in detective films, such as Hitchcock's *Vertigo* (1958), in which the detective follows, observes, and not coincidentally falls in love with the woman he is asked to investigate. Through Hitchcock's transparent style, we share the detective's gaze and perhaps his desire for both cognitive and sexual immediacy, which is the real subject of the film. © p. 150 Mulvey suggests that film is the definitive medium for representing this desire, because only film can offer a mobile and shifting point of view. She exaggerates somewhat. Striptease (and perhaps the theater in general) would also seem to build the way woman is to be looked at into the spectacle itself. What else is striptease, in fact, but a highly stylized structure for gazing at women? Nevertheless, film's claim to immediacy is that it defines and controls the structure of the gaze with greater precision. Mulvey is in fact arguing that film remediates striptease and the theater (we would add photography and painting) through its ability to change point of view, and, because of this remediation, it offers a new path to satisfying a familiar desire.


It may well be that film and other technologies of transparent immediacy enact a gendered form of looking. On the other hand, visual media can pursue other routes to immediacy than perfect transparency. Television's claim to immediacy depends not only on its transparency (conventional television is not as visually precise as film), but also on its ability to present events "live." ⊕ p. 187. The immediacy of such new media as computer games and the World Wide Web is supposed to come through interactivity—the fact that these media can change their point of view in response to the viewer or user. Indeed, interactivity even forms part of virtual reality's claim to immediacy. Finally, there is the immediacy that comes through hypermediacy—an immediacy that grows out of the frank acknowledgment of the medium and is not based on the perfect visual re-creation of the world. In such cases, we do not look *through* the medium in linear perspective; rather, we look *at* the medium or at a multiplicity of media that may appear in windows on a computer screen or in the fragmented elements of a collage or a photomontage. We do not gaze; rather, we glance here and there at the various manifestations of the media. This immediacy is not based on a desire to control and appropriate the female form, or any form, and may not be univocally gendered.<sup>2</sup>

Even within the cinema, there can be a hypermediacy of which Mulvey does not take adequate account. Recent film theorists such as Linda Williams (1995, 1–22) have criticized Mulvey's influential view for not attending to the multiplicity of possible viewers and viewing positions. Early film defined an alternative viewing position, which Tom Gunning (1995) has called the "cinema of attractions," and to which recent Hollywood film is returning with the help of computer graphics. ⊕ p. 155 Other theorists argue that we need to understand the filmic gaze in the context of other media or mediated experiences—for example, in the early days of film, the pleasures of strolling along boulevards and through arcades, of looking into shops, and of visiting museums and other exhibits (Friedberg 1995, 59–83; Schwartz 1995, 87–113). Vanessa Schwartz goes on to compare our contemporary cinema to the mediated spaces of shopping malls. ⊕ p. 174 Paul Young (1998) has argued that some early films were concerned with the potential rivalry of the telegraph, wireless, and radio. In other words, from its beginnings the cinema has entered into remediating relationships with a variety of other forms, and these relationships may encourage ways of looking other than the appropriating male gaze.

2. For psychoanalysis, immediacy may not be gendered in any univocal way. In Freudian terms, the desire for immediacy may well be a kind of prephallic desire to unite with the mother or return to the womb. This desire can be shared by women. Even in Lacanian terms, the desire for wholeness—the desire to get back behind the psychic split defined by the mirror stage—is something that both men and women can feel, although in different ways.



The model offered by Christian Metz and Laura Mulvey treats the cinema as a medium in isolation. In fact, they understand the viewer's experience of film as one of enforced isolation: he sits in a darkened theater and falls under the imaginary spell of the cinematic apparatus. However, in our media-saturated culture, we see film through other media and other media through film in a play of mutual remediations. The experience of transparent immediacy remains important in contemporary Hollywood film, but it is not the sole experience that even Hollywood film offers. Even for a male viewer, a recurring fascination with the medium distances and frames the viewing experience; the viewer oscillates between a desire for immediacy and a fascination with the medium. This distancing and framing occur not only for the spectator in the darkened theater, but also during all the other manifestations that precede and follow that supposedly isolated experience: the previews playing on monitors in the lobby of the theater; the home viewing of whole films on videocassette; the appearance of trailers, film stills, and information on the World Wide Web; and so on. These agents of remediation are at work for older films as well as contemporary ones. Perhaps it was still possible in 1958 to view *Vertigo* in relative isolation from other media. (In its early days, television remediated vaudeville and live theater more often than it remediated film.  p. 185) But now even old films are caught in the logic of hypermediacy. In the mid-1990s a remastered version of *Vertigo* was released for the theater, and part of the remastering process included digital enhancing. The movie is available on videocassette and on laser disk, and a search of the Web reveals well over two-thousand web documents that mention Hitchcock's *Vertigo*, some of which include film stills.

As a result of such remediations, we may all experience film and other visual media with something of that multiple consciousness or "double desire" that Teresa de Lauretis (1984, 155) ascribes to the female spectator, who is necessarily shut out from any simple participation in the transparent male gaze (cf. Doane 1991, 17–32). The remediation of the male gaze is apparent in *Strange Days*, when Lenny experiences a wire recording of a brutal rape and murder simultaneously from the points of view of the male assailant and his female victim.  p. 163. The violent potential of the male gaze is not denied, but it is certainly complicated by the remediating power of the wire. The male gaze can be distanced and framed by new media as well—for example, in the Amsterdam webcam, which purports to monitor the windows of rooms occupied by prostitutes (fig. 12.12). Although such a webcam

seems perfectly to enact the male gaze, no one could find this site even mildly erotic. The viewer may certainly be curious about what is going on behind the shades, but his desire for immediacy must pass quickly into a fascination with the medium. © p. 208

Furthermore, it is not clear whether the desire for immediacy must necessarily be expressed in the scopophilia of the male gaze. For if the male gaze takes as its sole purpose to control and possess the female, then the desire for immediacy implies another kind of looking as well. In formal terms, the desire for immediacy is the desire to get beyond the medium to the objects of representation themselves. Different media may enact this desire in different ways. Although linear-perspective painting and film may keep the viewer distant from what he views, in virtual reality the viewer steps through Alberti's window and is placed among the objects of representation. Similarly, the desire for sexual immediacy could aim for a voyeuristic examination of the objects of representation or a union with them. If the aim is voyeuristic, then the spectator is practicing the traditional male gaze. However, if the aim is union, then the desire for immediacy could be interpreted in Lacanian terms as the longing gaze of the mirror stage—a desire to return to an original state of union (with the mother) prior to the split that defined the subject and simultaneously privileged the male realm of the Symbolic over the realm of the Imaginary. The desire for immediacy then becomes the desire to return to the realm of the Imaginary and could well be shared by female spectators.

Finally, if the male gaze is exclusively an exercise in control and possession, the question remains whether such a gaze can be sustained in contemporary visual media, which are constantly remediating one another and therefore reminding us of the futility of believing that any technology of representation can fully erase itself. We may wonder whether the male gaze was ever represented unproblematically even in apparently transparent media. If we look back at the Dürer woodcut, we see that it too is hypermediated, at least to the extent that it does not simply enact the male gaze but represents it. After all, we do not look through the draftsman's eyes in a first-person, point-of-view shot; instead, we see the draftsman in the act of gazing. Since this image is not a motion picture, we cannot have the establishing-shot, point-of-view-shot, reaction-shot sequence that would enact the male gaze more straightforwardly. Instead, we are made conscious of our position as spectators, for our perspective enables us to appreciate the dissecting character of the draftsman's gaze. The subject of this woodcut is the

technique of linear perspective itself, which is what makes the image so amenable to a feminist critique. Once again, the desire for immediacy passes into a fascination with media. In this case, the conventional, heterosexual male gaze leaves itself open to another, hypermediated kind of looking.

All this suggests a psychosexual interpretation of the dichotomy between transparent immediacy and hypermediacy. Transparent immediacy attempts to achieve through linear perspective a single, "right" representation of things. Linear perspective becomes the normal and normative way of looking at the world, while hypermediacy becomes the sum of all the unconventional, unusual, and in some sense deviant ways of looking. Hypermediacy is multiple and deviant in its suggestion of multiplicity—a multiplicity of viewing positions and a multiplicity of relationships to the object in view, including sexual objects. Lorraine Gamman (1989, 12) has suggested that the female gaze can be distinguished from the male gaze by its multiplicity—so much so that it may be not be appropriate to speak of the female gaze at all, but rather of a series of looks from various perspectives.

At the same time, Judith Butler (1990) has argued that heterosexuality itself depends on homosexuality for its cultural meaning. While the socially accepted practice of heterosexuality seeks to exclude other sexual practices as deviant, it is precisely this exclusion that enables heterosexuality to define itself as normal and normative: "For heterosexuality to remain intact as a distinct social form, it *requires* an intelligible conception of homosexuality and also requires the prohibition of that conception in rendering it culturally unintelligible. Within [Butler's revised notion of] psychoanalysis, bisexuality and homosexuality are taken to be primary libidinal dispositions, and heterosexuality is the laborious construction based upon their gradual repression" (77). In the same way, we might argue that linear perspective, which enacts the heterosexual male gaze, depends on hypermediacy, which is defined as an "unnatural" way of looking at the world. As the sum of all unnatural modes of representation, hypermediacy can then be used to justify the immediacy of linear perspective. It would be for this reason that hypermediacy always reemerges in every era, no matter how rigorously technologies of transparency may try to exclude it. Transparency needs hypermediacy.