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Remediation

Understanding New Media

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The World Wide Web has already passed through several stages, each of which refashions some earlier media. The Web today is eclectic and inclusive and continues to borrow from and remEDIATE almost any visual and verbal medium we can name. What is constantly changing is the ratio among the media that the Web favors for its remEDIATIONS; what remains the same is the promise of immediacy through the flexibility and liveness of the Web's networked communication. The liveness of the Web is a refashioned version of the liveness of broadcast television.

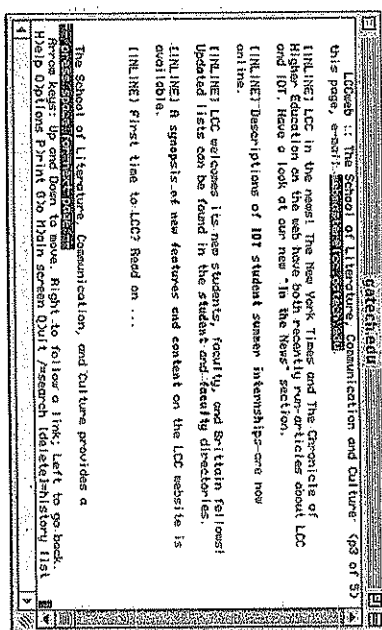
Ⓢ p. 187

TEXT AND GRAPHIC DESIGN

The Internet itself, as a communications system and as a cultural symbol, remEDIATES the telegraph. We still picture the Internet as a reticule of electric lines covering the industrialized world, as the telegraph first did in the nineteenth century, even though the Internet today consists of a variety of data links, including lines above ground, buried cables, and microwave and satellite links. Prior to the World Wide Web, the services of the Internet (such as email and simple file transfer) refashioned principally alphabetic media (the book, the letter, the technical report). Although it was possible to transmit digital graphics, most users were limited to ASCII text. And because the Internet could not pretend to offer the range of materials available in print, it had to rely on speed of communication as the only advantage in its remEDIATION. This speed was most telling in electronic mail, by far the most popular use of the Internet even into the early 1990s.

In its obscure first years, the Web too remEDIATED only textual communication. A CERN physicist, Tims Berners-Lee, proposed the

Figure 12.1 The Lynx text-only presentation of the home page of the School of Literature, Communication, and Culture at the Georgia Institute of Technology. <http://www.lcc.gatech.edu>, January 25, 1998.



World Wide Web hypertext service so that scientists could more readily share their papers and numerical data. The earliest browsers, such as Lynx, presented only text on web pages (fig. 12.1). However, in 1993, Marc Andreessen and colleagues at the University of Illinois created the first graphical browser, the forerunner of Netscape, which permitted static images to appear along with text on the page (fig. 12.2). (Hafner and Lyon 1996, 257–258, 263). This apparently minor addition had two momentous consequences. First, the Web began to engage a much larger audience of users, including most academics and researchers, who were already using email, and soon a large fraction of technically literate people throughout the industrialized world. Without graphics on the World Wide Web, there would not now be tens of millions of Internet users, nor would there be much interest from the business community. The second consequence, related to the first, was that the World Wide Web could now refashion a larger class of earlier media. In addition to the letter and the scientific report, it could now mediate the magazine, the newspaper, and graphic advertising. Internet magazines and news services became popular and important genres. The tradition to which web designers now looked for inspiration was graphic design for print, and the principles of web page design became similar to those for laying out magazine articles, advertisements, and title pages (fig. 12.3, plate 16). Even the differences, such as the smaller space and poorer resolution of the computer screen, were analyzed in a vocabulary provided by graphic design.

Graphic designers brought to the Web their obsession with visual perfection, which expressed itself in this new medium as a need to

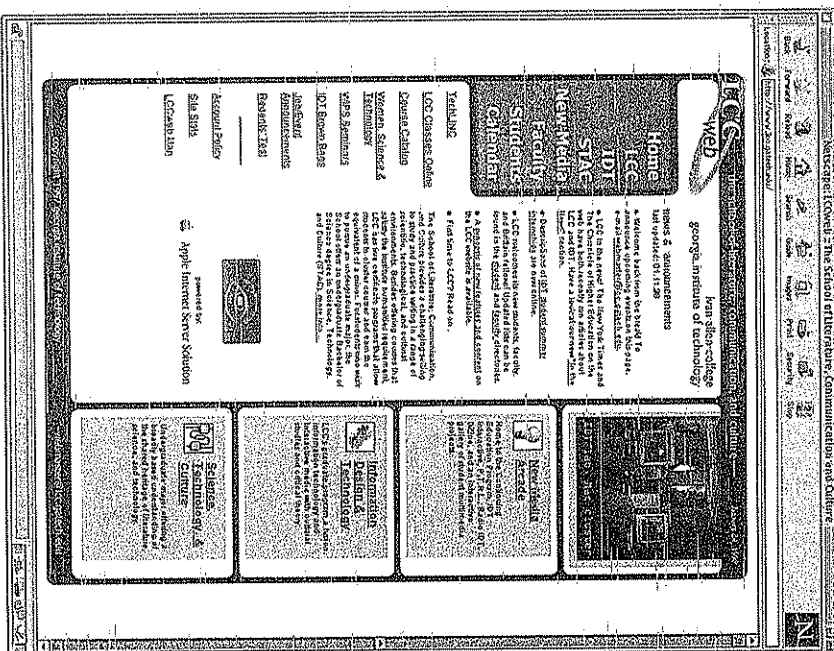
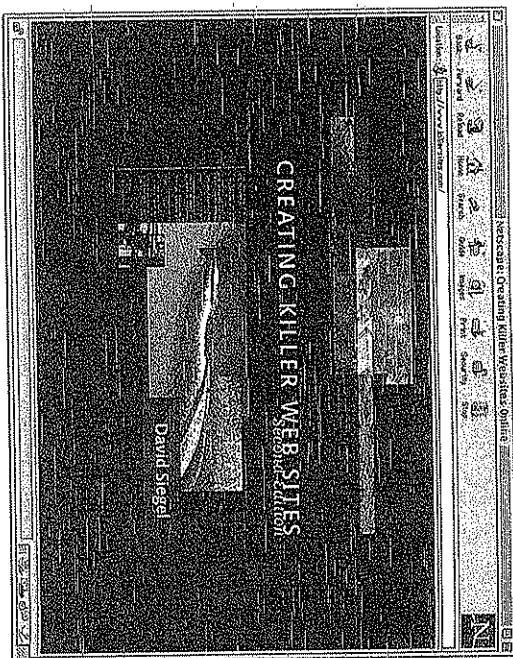


Figure 12.2 The Netscape presentation of the LCC home page as in figure 12.1.

Figure 12.3 Graphic design on the Web: the *Creating Killer Web Sites* splash (opening) screen. <http://www.killersites.com> January 28, 1998. © 1998 David Siegel. Used by permission.



while public libraries themselves were expanding their definition of appropriate materials and even including Internet terminals in reading rooms.

Traditional graphic design could not account for moving images, so the Internet and World Wide Web necessarily passed into a new phase when they began to deliver animation, fuller interactivity, and digital video and audio. The old remediations were not abandoned. The Web still refashions the personal letter, the book, and the magazine, but now it also refashions and reforms CD-ROM or DVD multimedia, radio, film, and television. It rivals all these forms by promising greater immediacy and by recontextualizing them in the encompassing electronic environment of cyberspace.

THE VARIETY OF REMEDIATIONS ON THE WORLD WIDE WEB

There are a number of possible strategies for remediation, from respectful to radical, and designers for the World Wide Web have adopted each of these strategies at various times. © p. 44 There have been and remain many web sites that highlight other media without any apparent critique. This respectful attitude is most common in remediations of more venerable media: the printed book, static graphics, paintings, and photographs. The purpose of Project Gutenberg is to collect pure verbal versions of "classic" texts; the site adds little in the way of graphic orna-

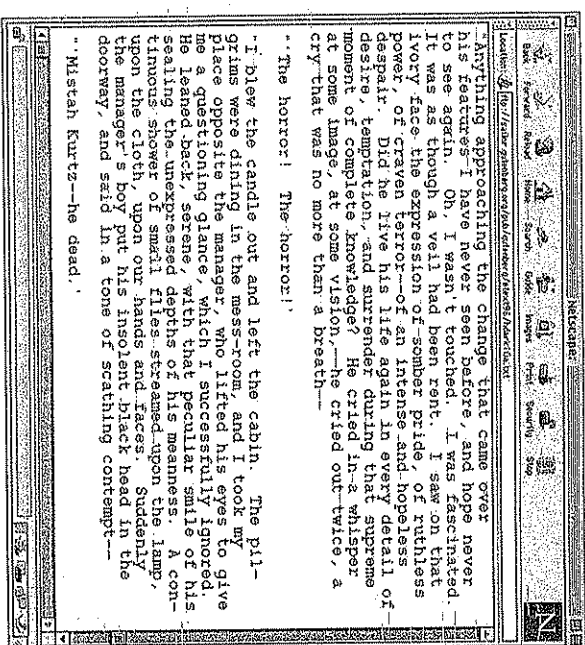
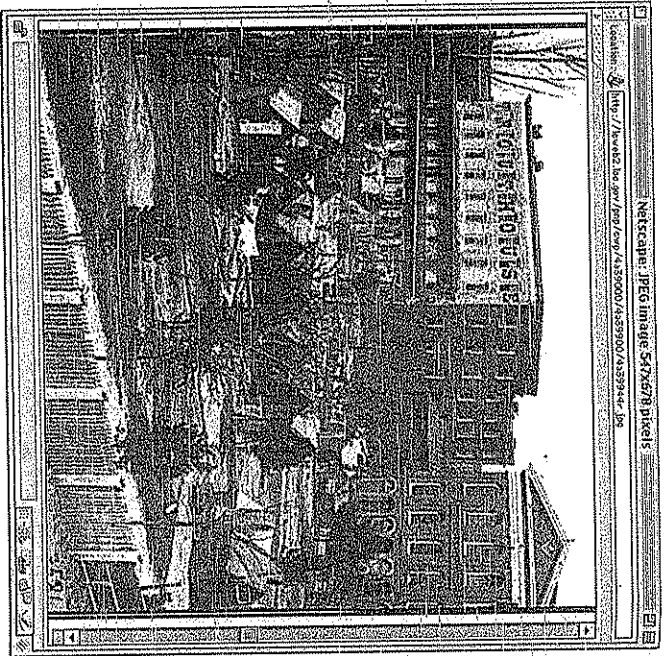


Figure 12.4 *Hearth of Darkness* from Project Gutenberg. <http://www.promo.net/pg/> January 24, 1998. © 1997 Project Gutenberg. All rights reserved. Used by permission.

mentation, so as not to distract from the alphabetic texts themselves (fig. 12.4). Its editor, Michael Hart, has called the computer a "Replacer Technology," because it can reproduce texts infinitely and without adding errors (<http://www.promo.net/pg/history.html> January 13, 1998). Hart's replication is nothing other than respectful remediation. CETH—the Center for Electronic Texts in the Humanities—is another example of respectful remediation (<http://www.ceth.rutgers.edu/> January 13, 1998). Such textual databases in fact preceded the introduction of the Web and at first relied on earlier services of the Internet or even digital tape to achieve their respectful remediations of the book. We can also point to the web site for the American Memory Project of the Library of Congress (<http://lcweb2.loc.gov/ammem.html> January 13, 1998), which preserves documents, prints, and early photographs, as well as some early films and sound recordings (fig. 12.5). And there are many virtual museums and art galleries that offer a sampling of digitized images, often laid out in some arrangement that reflects the physical space of the building itself.

Perhaps developers of these web sites and our popular culture at large are inclined to be respectful precisely because these media are

Figure 12.5 A Civil War photograph: Atlanta, Ga. Trust House, Masonic Hall, and Federal encampment on Decatur Street. Library of Congress, American Memory. <http://www.loc.gov/rr/amem/>. © Library of Congress, Prints & Photographs Division.



regarded as played out and therefore not likely to threaten the new digital media. In reproducing classic texts made for print or oil paintings hanging on a museum wall, the Web can fulfill an archival function without giving up its own claim to being revolutionary. Web designers feel less need to compete with "classic" authors or photographers because these modes of representation already seem complete. There are also film archives, as in the American Memory Project, although the Web's relationship to film is more complicated and contentious.

The remediation of print is by no means sacrosanct in this new medium. Web newspapers, magazines, and encyclopedias, for example, do seek to improve on the printed versions. Thus, the encyclopedia in CD-ROM, DVD, or Web form makes predictable claims to both transparency and hypermediacy. All electronic encyclopedias are hypermediated and can claim to move the reader to desired information more efficiently by means of string searches or by hyperlinks. This hypermediacy is the main improvement offered by most web encyclopedias—for example, by the Britannica Online, which, although it

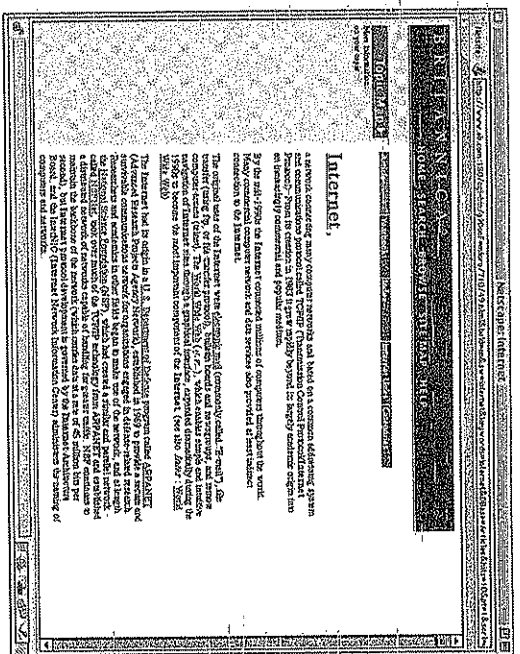


Figure 12.6 A page from the Britannica web site. Reprinted with permission from Britannica Online, Version 98.1.1. © 1997 by Encyclopædia Britannica, Inc.

contains some video, is primarily a collection of textual articles with static graphics (fig. 12.6). The CD-ROM or DVD encyclopedias, however, promise a new transparency through the animation, video, and audio that cannot appear in a printed version. **P. 46** The user can hear Martin Luther King's voice or the cry of a particular exotic bird; she can see digitized video of a volcanic eruption or the first landing on the moon. The claim here is that the electronic encyclopedia can bring her closer to the event by offering such transparent media instead of mere prose. Such multimedia encyclopedias are also beginning to appear on the Web.

Web and Internet applications refashion the newer perceptual media of radio, television, and telephone more aggressively than they refashion print. With radio and television, the claim is not that the Internet provides a new transparency, although the quality of the audio (if not video) is already approaching the level that broadcasting or cable can provide. However, on the Internet, the listener has greater control over her listening or viewing experience of radio. It is an immediacy that she achieves through the hypermediacy of the windowed interface. She now listens to Internet radio with a mouse in one hand while she looks at a web page; she reads rubrics as she listens and may change the order of the materials by clicking on the links provided. Similar interfaces for Internet television already exist and will no doubt flourish as

soon as the bandwidth to the home can handle full-screen, full-motion images. With the Internet phone services, more senses come into play, as the user makes, retrieves, and modifies calls through a graphical user interface. The main claim of improvement, however, is economic: the Internet phone is cheaper to use for long-distance calls.

WEB CAMERAS

Like other digital media, the Web may radically remediate its predecessors while failing to acknowledge them at all. The so-called web cameras only occasionally acknowledge their cultural role as "television only better." Apparently frivolous, web cameras are in fact deeply revealing of the nature of the Web as a mediator. Trained on some corner of the world—a hamster in a cage, a coffee machine, or the traffic on an expressway—web cameras take up the monitoring function of television and video. Broadcast television and closed-circuit video still perform this cultural task both publicly and privately. Security cameras guard the interior and exterior of buildings and private homes, while we have come to expect that news networks such as CNN will provide us with a constant video stream for any important natural or human disaster. **P. 189** Television monitors the commonplace as well as the disastrous; it both transforms the commonplace into an event (the Weather Channel) and makes the disastrous commonplace (with its endless coverage of developing tropical storms or forest fires).

Now the Web and related services on the Internet have begun to supplement and rival broadcast television in this role. Because streaming video on the Web is relatively cheap, we can now afford to monitor quotidian events more closely than ever. And, as always, the Internet can offer its user an interactivity that is not available with conventional broadcast television. At some sites the visitor can even adjust the camera's view herself.

In comparison with the viewing of film, the monitoring function of television is relatively private, since we watch television in our living room rather than in a public place. **P. 185** An indication of this difference is the way in which the VCR turns film into television. Watching a film amid the distractions and conversations of the living room often becomes an experience of casual monitoring rather than intense viewing. Yet the World Wide Web offers an even more private experience than television, because the individual browser is often alone with her machine, and in any case only one person can conduct the interaction. Web cameras are in some ways better monitors than televi-

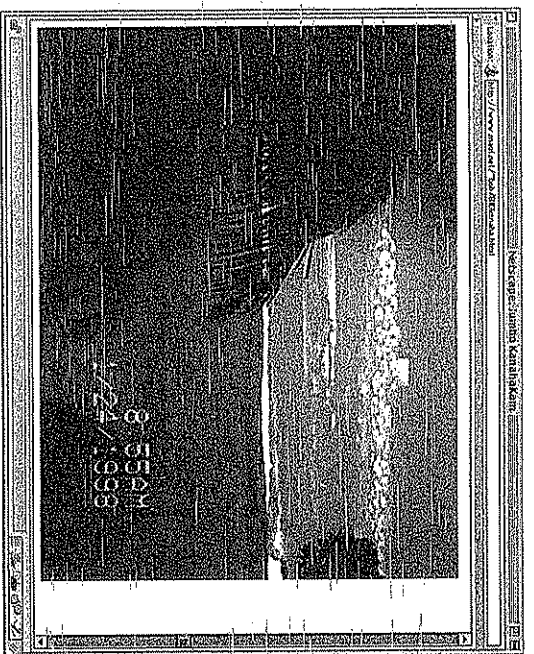


Figure 12.7 The Jumbo Kanaha Kam: a web camera on the island of Maui. <http://www.maui.net/~bob/BIGkanaha.html> January 24, 1998. © 1998 readysetnet. Used by permission.

sion, and indeed there are even web sites that allow the viewer to monitor television shows as they progress. Web cameras are now often in stop motion, but full-motion video eventually will put the Web in direct competition with broadcast and cable television (Reid 1997).

Web cameras would seem to operate under the logic of transparency, as each provides an unedited stream of images that makes some part of the physical world transparent to the Internet. Many cameras are pointed at nature sites such as mountains and beaches, despite the fact that, except for the daily changes in lighting and seasonal changes in the weather, there are few changes to monitor. The function of these nature cameras is to put the viewer in touch with the exotic or the remote, a service performed by photography and film in the last hundred years. Thus, a series of "robot cameras" on Maui track the conditions in paradise at sixty-minute intervals (fig. 12.7), while another camera takes the viewer to the perpetually frozen Mawson Station in Antarctica (fig. 12.8). In 1997, when the Mars Pathfinder became the first spacecraft to land on another planet after the widespread deployment of the Web, the site operated by the Jet Propulsion Laboratory became the world's most distant and exotic web camera (fig. 12.9). The site received millions of "hits" in the first days after the landing, even though there was nothing to see but a rocky desert and an undifferenti-

Figure 12.9 The Mars Pathfinder web site. <http://mpfwww.jpl.nasa.gov>. © 1998, NASA Jet Propulsion Laboratory. All rights reserved. Used by permission.

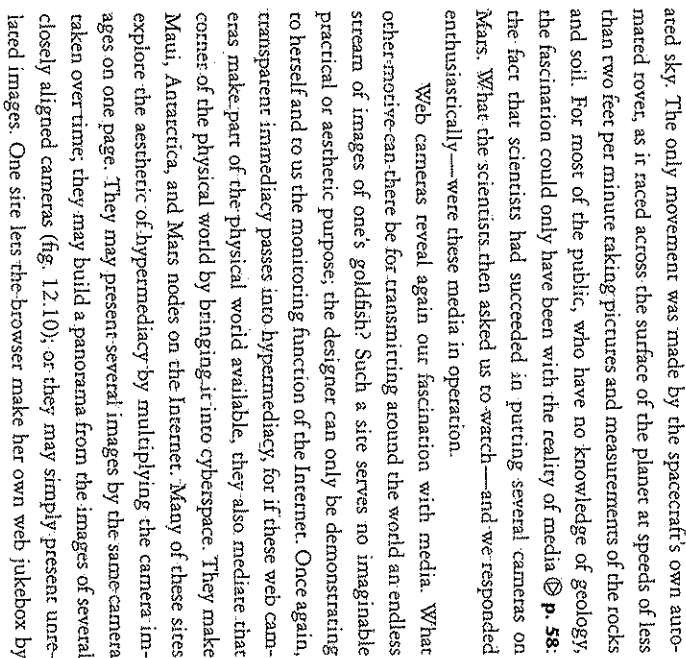
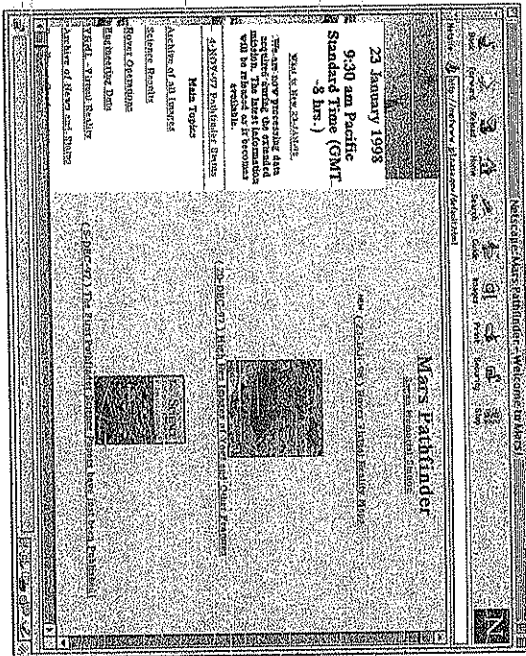
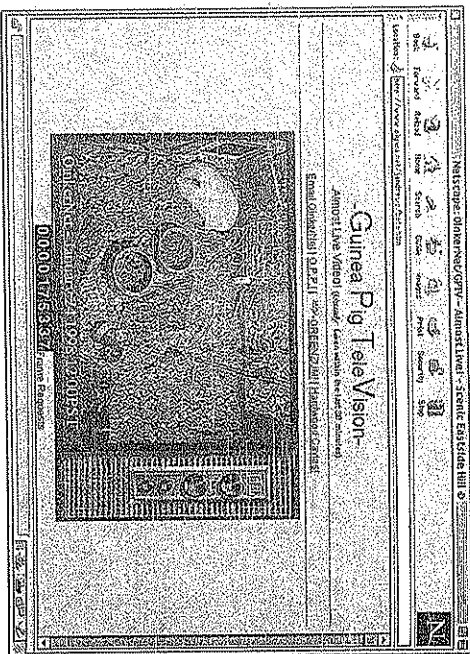


Figure 12.10 A panoramic view by the Miami Beach Cam. <http://video-monitoring.com> January 24, 1998. © 1997, Eidman Video Systems, Inc. Used by permission.

Figure 12.11 Guinea Pig Television. <http://www.ojywa.net/jandrews/beta.htm> January 24, 1998. © 1995–1998 Scenic Eastside Hill/OinkerNet. All rights reserved. Used by permission.



placing any three cameras side by side (fig. 1.6). These techniques make us conscious of each web camera as a mediating technology. The "Guinea Pig Television" site goes further in playfully acknowledging the Web's remediation of television, because the designer has put the animals on view inside the graphic frame of a television set (fig. 12.11).

Many web cameras are trained on built environments rather than natural ones: city squares, highways, college dorms, and doughnut shops. These sites have their agenda in remediating our social spaces and in defining their oscillations between transparency and hypermediacy. We will limit ourselves to one example: a site from the Netherlands that purports to be a view of the red-light district in Amsterdam (fig. 12.12). Here the prostitutes put the shade up when they are available and pull it down when they are with a customer. As the site monitors the shade, it enacts the two logics of remediation. When the shade is up, the window becomes transparent, and the web image expresses quite literally the viewer's desire for sexual as well as visual immediacy. **Fig. 78** When the shade is down, the viewer can examine only the window itself and consider what may be going on inside. The image becomes a representation of the desire for immediacy, which the web site produces, thwarts, and then reproduces.

THE HETEROGENEITY OF THE WEB

The ultimate ambition of the Web designer seems to be to integrate and absorb all other media. Even in the cases of respectful remediation,

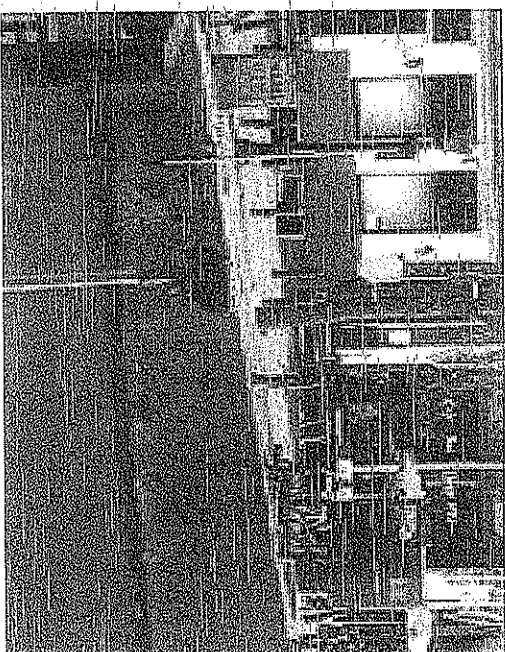


Figure 12.12 A web camera trained on two windows in the red-light district of Amsterdam.

the user may be left to wonder why she ever needs to return to the original medium. When all classic texts finally become available online, why return to the printed library? On the other hand, there are economic and cultural forces that work against the designer's desire to absorb everything into the Web. Museums in need of physical patrons may post only a small number of items on their web sites, and the text may point out that the reproductions on the Web cannot do justice to the originals. Many organizations develop web sites whose role is to complement other media products they own. Newspapers and television networks maintain extensive sites, but surely have no plans to discontinue their printed papers or televised broadcasts, although they may start wholly new ventures on the Web (Reid 1997). Instead, their earlier and newer media both rival and support each other. CNN's web pages contain audio and video clips from the same feeds, available to their television network; the front page and the web site of *USA Today* are similar in style and content (fig. 1.6 and 1.7); and so on.

The hybrid and inclusive character of the Web does not make it any easier for our legal and legislative institutions to control this new technology; they would prefer to understand the Web by simple analogy to one earlier medium. The controversy over the censorship of the World Wide Web in the United States has really been a debate over the appropriate analogy: is the Web a new kind of television, newspaper, or

indeed a virtual street corner? In striking down the Communications Decency Act in 1997, the Supreme Court decided that the Internet deserved the freedom of expression accorded to print rather than television. American television is censored for sexual content, ostensibly because it is so accessible to children, but in fact because of its assumed immediacy. In its ruling, the Court was endorsing the unstated assumption that visual media are more immediate than words and that visual pornography is therefore more threatening than verbal. The justices accepted the notion that the Internet is essentially a verbal medium with some pictures—a characterization that was only partly true in 1997 and is becoming less accurate as streaming audio and video, Java applets, and VRML proliferate. If the Internet and the Web remained as they were in the mid-1990s, then the decision striking down the Communications Decency Act could have been the last judicial word. But the increasing remediation of television on the Internet will likely mean a continued debate. It will be interesting to see whether legislatures and courts continue to regard the Internet as a book as it comes to look more and more like television—and as television comes to look more and more like it. The powerful cultural forces that fear the immediacy of the image can only become more alarmed. On the other hand, the Internet is not comfortable with the logic of transparency, and so pornography on the Internet will always oscillate between visual immediacy and the irony and self-referentiality of the Amsterdam web camera.

The cultural expectation that the Web remediate all earlier media means that the web interface can never be completely transparent. The strategy that dominates on the Web is hypermediacy, attaining the real by filling each window with widgets and filling the screen with windows. Hypermediacy is also the predominant strategy of broadcast television. Insofar as the Web is like television, it is committed to monitoring the real and the quotidian. Indeed, while television may still (barely) distinguish between the physical reality and its mediated presentation, the Web is even more aggressive in breaking down that barrier and insisting on the reality of mediation itself. Everything, from the snow fields of Antarctica to the deserts of Mars, finds its way on to the Web.