

The Work of Art in the Age of Digital Reproduction

Editor's Message

The Web is filled with images—diagrams, drawings, photographs, computer animations, virtual reality, and, increasingly, streaming video. The ability of the Web to display all sorts of images in full color, often with moving or interactive aspects, is one of its great attributes and what makes it much more than simply a system for exchanging alphabetic text.

Oddly though, the proliferation of images, especially those we see on commercial sites and in the all-too-common banner and pop-up ads, obscures the capacity of the Web as a medium for sharing many other forms of art. Beneath the glitzy, commercial veneer the Web has become a major art medium: Serious students of art can examine art products across genres, cultures, and time; artists of all ages can present their work to larger audiences; all those interested in developing new forms of expression can experiment and extend the palette of possibilities; and anyone can explore art forms that are difficult to access otherwise.

Art on the Web can be a boon to teaching across the curriculum. There are many sites using art to offer new ways to approach the study of literature, history, culture, philosophy, and the sciences. Most important, these sites remind us of the importance of the aesthetic dimensions of learning.

This month's column investigates only a few of the ways that artists and appreciators of art are using the Web. How is the combination of digital media and new communication technologies changing the practices of making, understanding, and responding to art? It is impossible in a few pages to convey the richness and diversity of art online, but perhaps this brief tour can suggest another dimension of our expanding notion of literacy in the information age.

From Hand to Mechanical to Digital Reproductions of Art

At the time of writing this column, Walter Benjamin is getting much attention because of new critical studies and translations of his work. Much of that work is complex, fragmentary, and ultimately unfinished, perhaps not unlike the changing society he sought to understand. Nevertheless, his analysis of art and reproduction, written 65 years ago, is still relevant to discussions of Internet literacy.

In 1927 Benjamin began work on his famous Arcades project (Buck-Morss, 1991), in which he studied the social life of 19th-century Paris through its arcades (the prototype of today's shopping malls). The work eventually expanded to include the entire physical and historical "assemblage" of Paris from the catacombs to the Eiffel Tower. As he sought to understand the interplay of historical, political, aesthetic, and technological forces, he foreshadowed the "information ecologies" ideas of today (Nardi & O'Day, 1999).

Mechanical Reproduction of Art

One of Benjamin's most accessible and well-known essays is "The Work of Art in the Age of Mechanical Reproduction," written in 1935 (Benjamin, 1968). In that essay, he asked what happens to our experience of art, and to the artwork itself, when it becomes easy to reproduce it. He began with the argument that works of art were always reproducible. Students or apprentices learn how to replicate the work of their teachers, master artists and crafters reproduce their work for others, and third parties copy works for monetary gain or fame.

Nevertheless, the number of copies of a given work of art was always small. Moreover, it was usually possible to determine the authenticity and uniqueness of a given work. The painting by Leonardo da Vinci known as the *Mona Lisa* hangs in the Louvre Museum in Paris. Handmade copies or forgeries were easily detected. Furthermore, what the *Mona Lisa* has meant to generations of people has been closely tied to its unique physical positioning. Unfortunately, for many that has meant seeing it in a crowded room with dozens of people jostling for a glimpse.

Benjamin argued that the age of mechanical reproduction changed not only our aesthetic experience of art but also art's political functions, its commodity value, and the social relations constructed around it. He built on the work of the poet Paul Valéry, who earlier had written about the effects of lithography,

photography, and other techniques in changing our relation to images. His words could be applied to the use of the Internet today:

Just as water, gas, and electricity are brought into our houses from far off to satisfy our need in response to a minimal effort, so we shall be supplied with visual or auditory images, which will appear and disappear at a simple movement of the hand, hardly more than a sign. (Valéry, 1964, p. 226)

For Benjamin in 1935, the technologies of the phonograph, radio, and film only added to the prevalence of mechanical reproduction. The *Mona Lisa* could now be experienced at the cinema or on a postcard, each reproduction altering the future experience of the original.

New capacities for reproduction appeared with television and with advances in filmmaking and publishing. John Berger examined these in his work, which built on Benjamin's courses. *Ways of Seeing* (Berger, Blomberg, Fox, Dibb, & Hollis, 1972) was based on his British Broadcasting Corporation television series that expanded the ways of viewing and interpreting visual art. Through many examples, Berger showed that art both reflects and shapes our social world, that the contexts for viewing are critical, and that the expanded possibilities for reproduction have fundamentally altered the functions of visual learning.

Berger did not know about the Internet when he worked on this series and book, but his ideas extend easily into consideration of the new technologies. He would probably say that the new digital forms have vastly extended what art can mean, not simply by making art products available to wider audiences, but by spawning a diverse array of new ways of seeing.

Digital Reproduction

Today, the process of mechanical reproduction is expanded through electronic or digital reproduction. Benjamin's essay is not only reproduced in various print collections, including the paperbound *Illuminations* (1968), but also in multiple digital forms (see http://pixels.filmtv.ucla.edu/community/julian_scaff/benjamin.html and http://Web.bentley.edu/empl/c/rcrooks/toolbox/common_knowledge/general_communication/benjamin.html).

Each of these presents the same text, but in different formats and contexts that change its meaning. The images from *Ways of Seeing* are online, too. In contrast to those of the television series, they are easily accessible and can be viewed

at leisure in any order. In contrast to those in the book, images are in color and can be viewed in various sizes or by focusing in on image details.

Digital reproduction brings several new elements to the process of diffusing art. First, people can reproduce art much more quickly than they could in the time of Valéry or Benjamin. Second, they can make many more copies, such that the *Mona Lisa* is reproduced on countless websites created by students, and then reproduced again by each visitor to the site as he or she calls up that webpage image. Taken together, the ability to reproduce images quickly and multiply leads to what U.S. Senator Charles Mathias called the “Era of Promiscuous Publication” (Post, 1996). In one reading of the future this will make copyright unenforceable. In another, it leads to technological restrictions on copying that could bring an end to the “Fair Use Doctrine,” which permits individuals to make reasonable personal use of any image they have obtained legally.

A third element of digital reproduction is the capacity of the user, or viewer, to manipulate the work of art and thus control the context of viewing. Software allows users to adjust the image size and the resolution, to focus in on minute details, to extract portions of an image, to combine one image with another, and to surround the image with a new textual or visual context.

What do all these changes mean for the development of art? What are the implications for artists and students of art? How do they change the meaning of literacy in the information age? Jonathan Zittrain has said that discussions of technology always have two phases. First, we say “It’s too early to tell” and soon after “It’s too late to do anything about it.” His solution to this is to focus on addressing the first before the second arrives (Allis, 2000).

Other Views

Our fine arts were developed, their types and uses were established, in times very different from the present, by men whose power of action upon things was insignificant in comparison with ours. But the amazing growth of our techniques, the adaptability and precision they have attained, the ideas and habits they are creating, make it a certainty that profound changes are impending in the ancient craft of the Beautiful. In all the arts there is a physical component that can no longer be considered or treated as it used to be, which cannot remain unaffected by our modern knowledge and power. For the last twenty years neither matter nor space nor time has been what it was from time immemorial. We must expect great innovations to transform the entire technique of the arts, thereby affecting artistic invention itself and perhaps even bringing about an amazing change in our very notion of art. (Valéry, 1964, p. 225)

Even the most perfect reproduction of a work of art is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be. (Benjamin, 1968, p. 220)

[F]or the first time in world history, mechanical reproduction emancipates the work of art from its parasitical dependence on ritual. To an ever greater degree the work of art reproduced becomes the work of art designed for reproducibility. From a photographic negative, for example, one can make any number of prints; to ask for the “authentic” print makes no sense. But the instant the criterion of authenticity ceases to be applicable to artistic production, the total function of art is reversed. Instead of being based on ritual, it begins to be based on another practice—politics. (Benjamin, 1968, p. 224)

Website of the Month

Christopher Witcombe’s site (<http://witcombe.sbc.edu>) is one of the best organized and most comprehensive resources providing pathways to art across the centuries, cultures, media, and genres. It relies on existing collections in various museums, galleries, television stations, journals, and other organizations throughout the world.

When you visit the site, you can find images of clay tablets with early writing from Mesopotamia. You can visit the caves of Elephanta, near Bombay, containing reliefs, sculptures, and a temple to the Hindu god Siva. These cave works date to the Silhara kings from 9 to 12 A.D. You can also see the “Lost Cities of the South” in the Public Broadcasting Service series on Africa narrated by Henry Louis Gates, Jr. Or you can visit Judy Chicago’s *The Dinner Party* exhibition from 1974–1979.

Where You Can Find Art on the Web

Many other sites show Web art or talk about art. Open Directory alone lists 154,675 sites. Here are just a few starting points.

- The Heidelberg Project at <http://www.heidelberg.org> is an outdoor art environment in the middle of Detroit, Michigan, USA. Cars painted in polka dots, houses clothed in rainbows, and the outdoors turned into a sculpture garden become an unusual and beautiful urban environment. The environment also generates controversy, which you can read about at the site. The story of this site and its Web counterpart

is a good illustration of how digital reproduction reshapes the political potential of art.

- The Web Gallery of Art at <http://www.kfki.hu/~arthp/index.html> is “a virtual museum and searchable database of European painting and sculpture of the Gothic, Renaissance, and Baroque periods (1200–1700), currently containing over 6,500 reproductions. Biographies, commentaries, guided tours are available” (according to the website).
- The Boston Cyberarts Festival at <http://www.bostoncyberarts.org> shows how the Web opens up new dimensions for art. The site “shows art in which the computer is integral to the art piece,” including art that can only exist in the context of the Internet, art that is experienced as a navigable three-dimensional space, performance art, and sculpture and images conceived in relation to information technology. There is an online gallery featuring interactive exhibits by well-known “cyberworld” artists, such as Andy Deck and Mark Napier. Joseph Squier’s “The Place,” a classic piece of Web artwork, is presented there and at <http://theplace.walkerart.org>.
- Expression on the Web: A Continuum of Space Resources at <http://www.SpaceArt.org> is a site containing unusual works by artists who focus on images inspired by astronomy and space travel. There are also links to sites about astronauts and space in general.
- Clip Art sites, such as <http://www.artclipart.com>, provide extensive libraries of art that you can print out or use to make websites, brochures, and classroom newspapers.
- The Dia Center for the Arts in New York at <http://www.diacenter.org> has supported projects in many artistic media and created a site for interdisciplinary art and criticism. *Dia*, from the Greek word meaning “through,” reflects the Dia Center’s efforts to realize unusual art projects. The website is very well designed and presents a number of fascinating works with dynamic visual and auditory elements.
- Not for Ourselves Alone: The Story of Elizabeth Cady Stanton and Susan B. Anthony at <http://www.pbs.org/stantonanthony> is a site associated with a U.S. television documentary made by Ken Burns. The site allows viewers to follow events in the women’s suffrage move-

ment by seeing the photographs used in the documentary and by reading historic documents and essays.

- The International Museum of Collage, Assemblage and Construction (IMCAC) at <http://ontologicalmuseum.org/museum/collage> is a department of the Ontological Museum (Museo Ontologico) located in Cuernavaca, Morelos, Mexico, about one hour south of Mexico City. "The IMCAC is dedicated to the collection, study and exhibition of collage, assemblage, construction, montage, photo-montage, digital collage, and other constructive arts" (according to the website).

The Faces of Tomorrow project creates opportunities for young people to make and share art, and to create collective art pieces. It is a project of Boston Cyberarts, Inc., a nonprofit organization that organizes the Boston Cyberarts Festival mentioned earlier in this column. Since its debut at the 1999 festival, numerous arts programs, school groups, and afterschool programs have used this unique interdisciplinary project with middle school students.

As the site says, "Submit your face, your hopes and dreams, your curiosities and questions, your wonderings and speculations—in the form of a face." Young artists can become part of this collective art project by submitting an image created through drawing, photography, computer graphics, or any means that yields a digital image of the appropriate size (360 pixels square). Viewers can then call up individual images.

Glossary

Cyberart: a term used to denote art that uses, builds on, talks about, or in some other interesting way relates to the computer, Internet, or Web. See Rodney Chang's list of 72 propositions in his definition of *cyberart* (<http://www.lastplace.com/page48.htm>).

Image viewer: a program that allows the computer to display and control a visual image. There are many varieties. The major ones have plug-in versions that can be incorporated into a Web browser. Some simply display an image; others allow seamless panning and zooming on an image.

VRML art: art integrating audio and video for 3D digital imaging. Many different forms exist, making use of various "viewers" to display the art. The person experiencing the artwork can do so in a manner akin to exploring a real space, hence the "VR," or virtual

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Glossary (cont.)

reality, designator. Today, VRML art is included in many websites as a supplement to other content, not only as a separate art presentation. It is also being integrated with physical exhibitions of art in galleries and museums.

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