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A REVIEW OF COPYRIGHT AND THE INTERNET

NEEDHAM J. BODDIE, II, THOMAS C. McTHENIA, JR., FRED B. AMOS, II AND DOUGLAS W. KIM†

INTRODUCTION

I. Internet Law: A Perspective

The expansion of the Internet in size, usage and influence has generated a variety of novel legal questions. As a result, members of the public, various industries and the legal profession have all

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scrambled to understand and address the field of Internet Law. It is the authors' opinion that the term "Internet Law" does not represent a new field or body of law such as tort law, contract law or property law. Internet Law is more or less the application of existing legal doctrines to the new technologies, avenues of commerce, and means of human interaction defined, created and experienced on the Internet. In some of these areas, existing legal structures are being applied, modified or adapted to the Internet, with varying decrees of success, as they have been to prior technological advances such as electricity, the automobile and the computer. In other instances, new technologies and experiences on the Internet have raised questions as to the applicability and efficacy of existing legal rules. This manuscript seeks to address and, at times, offer solutions to some of these selected issues.

II. History and Modern Developments of the Internet

The size of the Internet is impossible to determine at any given moment. Clearly, however, the Internet has experienced extraordinary growth in recent years. In 1981, fewer than 300 computers were linked to the Internet, and by 1989, the number stood at fewer than 90,000 computers. By 1993, over 1,000,000 computers were linked. Today, over 9,400,000 host computers worldwide are estimated to be linked to the Internet. This does not include personal computers accessing the Internet using modems. Reasonable estimates place as many as 40 million people around the world on the Internet and this figure is expected to grow to 200 million by the year 1999.

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2. ACLU, 929 F. Supp. at 823.

3. Id.

4. Id.

5. Id.

6. Id.
A. The Origination of the Internet

The Internet began around 1969 as an experimental project of the Advanced Research Project Agency. This project, was called ARPANET, was developed by the Defense Advanced Research Projects Agency ("DARPA"). As additional networks were developed, DARPA developed rules and procedures, called protocols, for sending and receiving data between these networks and thereby linking them. As these networks increased in size and complexity, it came to be called the "DARPA Internet," and finally just the "Internet." The ARPANET network initially linked computers owned by the military, defense contractors, and university laboratories conducting defense-related research. The network allowed researchers across the country to access extremely powerful supercomputers located at a few key universities and laboratories.

To achieve a decentralized, self-maintaining series of redundant links, the ARPANET encouraged the creation of multiple links to and from each computer or network. Thus, a computer located in Washington, D.C., might be linked to other computers in neighboring states or on the Eastern seaboard. Each of those computers could in turn be linked to other computers, which themselves would be linked to other computers. Such a structure can be visualized as a web of networks, with each location connected through several different paths to the other locations.

The Internet now consists of a confederation of national, regional and local networks running under a standardized set of

8. ACLU, 929 F. Supp. at 823.
9. Id. at 831.
10. Id.
11. The national networks are known as "backbone" networks. One notable backbone network is the NSFnet, which was created in 1986 by the National Science Foundation to serve the research community. NSFnet was originally designed to provide remote access to supercomputer centers located at Cornell University, University of California at San Diego, University of Illinois at Urbana-Champaign, Princeton University, and the Pittsburgh Supercomputer Center. Presently, over a 1,000 regional and local area networks have become connected to NSFnet providing access to researchers at more than 300 universities. Russell L. Kahn, Technical Communicators and the National Research and Education Network—Opportunity Knocks, Technical Communications, First Quarter 1992, at 16.
protocols referred to as the Internet Protocols. Funding for the Internet comes from five federal agencies, various universities and states, and private companies such as IBM and MCI. Although the Internet is subsidized by the federal government, no single entity owns it and there is no central management or control. The Internet currently comprises more than 15,000 individual networks which connect about 9.4 million computers. The number of users is expected to double each year for the foreseeable future. The Internet carried about 540 billion packets of information in 1993.

No single entity, academic, corporate, governmental, or non-profit, administers the Internet. The Internet exists and functions as a result of the fact that hundreds of thousands of separate operators of computers and computer networks independently decided to use common data transfer protocols to exchange communications and information with other computers. There is no centralized storage location, control point, or communications channel for the Internet, and it would not be technically feasible for a single entity to control all of the information conveyed on the Internet. The Internet is not a physical or tangible entity, but rather a giant network which interconnects innumerable smaller groups of networks. These smaller networks have become common place in today's world. For example, a university has computers which are linked to each other for the purpose of exchanging files and messages and sharing equipment such as printers. These networks are referred to as Local Area Networks (LANs) when contained within one physical building and Wide Area Networks (WANs) when they span several buildings.

These communications can occur almost instantaneously and can be directed either to specific individuals, to a broader group of people interested in a particular subject, or to the entire Internet. The vast increase in communications abilities between millions of people has created a situation where copyrighted material is globally available at the touch of a button. An author now needs the

12. The Department of Energy ("DOE"), the Department of Health and Human Services ("HHS"), the National Aeronautics and Space Administration ("NASA"), the National Science Foundation ("NSF"), and DARPA. Each of these agencies operates networks on the Internet.


14. Id.

15. Id.

16. Id.
ability to protect his or her work on a global scale across millions of users.

B. Internet Access

A wide variety of avenues are available to access the Internet. In terms of physical access, there are two common methods to establish an actual link to the Internet. First, one can use a computer or computer terminal that is directly connected to a computer network that is itself directly or indirectly connected to the Internet. Second, one can use a personal computer with a modem\(^\text{17}\) to connect over a telephone line to a computer or computer network that is itself directly or indirectly connected to the Internet. Both direct and modem connections are made available to people by a wide range of academic, governmental, or commercial entities.

The majority of colleges and universities in the United States provide Internet access to students, faculty, researchers, and others.\(^\text{18}\) Such access is often provided using computers located in campus libraries, offices, or computer centers, or by telephone access using a modem from a student’s or professor’s campus or off-campus location.\(^\text{19}\) Students and professors can access information and content provided by the college or university itself, as well as the vast amount of research resources and other information available on the Internet worldwide.

Another common form of access is through one of the major national commercial “online services” such as America Online,\(^\text{20}\) Mindspring, Interpath, and the Microsoft Network. These services charge a modest monthly fee for Internet access.\(^\text{21}\) Although commercial access to the Internet is growing rapidly, many users of the Internet, such as college students and staff, do not individually pay for access.\(^\text{22}\) The modest fees, ease of access and free access through colleges and universities has provided an environment which has led to the explosive growth of the Internet.

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17. A device which converts digital signals to analog signals and vice-versa.
19. Id.
20. America Online (AOL) has recently purchased CompuServe to increase its user base.
21. At the time of this article, Mindspring provided unlimited monthly access for $19.95.
22. Except as a fee incorporated into tuition.
C. Communication Over the Internet

Once one has access to the Internet, there are a wide variety of methods of communication over the Internet. The most common methods of communication on the Internet can be roughly grouped into six categories: one-to-one messaging ("e-mail"); one-to-many messaging ("listserv"); distributed message databases ("USENET news groups"); real time communication ("Internet Relay Chat"); real time remote computer utilization ("telnet"); and remote information retrieval ("ftp", "gopher," and the "World Wide Web"). Most of these methods of communication can be used to transmit text, data, computer programs, sound, visual images and moving video images.

1. One-to-One Messaging: Electronic Mail

One method of communication on the Internet is electronic mail, or e-mail. Using e-mail, one can address and transmit a message to one or more other people. E-mail on the Internet is not routed through a central control point and can take many and varying paths to the recipients. Unlike postal mail, simple e-mail generally is not "sealed" or secure, and can be accessed or viewed on intermediate computers between the sender and recipient. However, current technology such as encryption provides security so that only the sender and receiver know the content of the message.23

2. One-to-Many Messaging: Listservs or Mail Exploders

The Internet also contains automatic mailing list services ("listservs" or "mail exploders") that provide group messaging on a particular subject of interest to a group of people. For example, people can subscribe to a "listserv" mailing list on intellectual property. The subscriber can submit messages on the topic to the listserv and these messages are forwarded (via e-mail), either automatically or through a human moderator, to anyone who has subscribed to the mailing list. A recipient of such a message can reply to the message and have the reply distributed to everyone on the mailing list. Most listserv-type mailing lists automatically forward all incoming messages to all mailing list subscribers.

23. At the time of this writing, there is a debate as to whether attorneys should be forced to encrypt e-mail messages to their clients. A concern exists that transmitting unencrypted e-mail may waive the attorney client privilege if, as some would argue, e-mail is not a secure method of communication.
There are thousands of such mailing list services on the Internet, collectively with hundreds of thousands of subscribers.\(^{24}\)

3. *Distributed Message Databases: USENET News Groups*

Similar in function to listservs are distributed message databases such as "USENET newsgroups." USENET newsgroups are disseminated using ad hoc, peer-to-peer connections between approximately 200,000 computers called USENET "servers". These USENET servers are located around the world. Newsgroups are among the most popular and widespread applications of Internet services and cover all imaginable topics of interest. Like listservs, newsgroups are open discussions and exchanges on particular topics. Users, however, need not subscribe to the discussion mailing list in advance, but can instead access the database at any time. For the moderated newsgroups, all messages to the newsgroup are forwarded to one person who can screen them for relevance to the topics under discussion. For unmoderated newsgroups, when an individual user with access to a USENET server posts a message to a newsgroup, the message is automatically forwarded to all adjacent USENET servers that furnish access to the newsgroup, and it is then propagated to the servers adjacent to those servers, etc. The dissemination of messages to USENET servers around the world is an automated process that does not require direct human intervention or review.

4. *Real time communication: Internet Relay Chat*

Individuals on the Internet can engage in an immediate dialog in "real time" with other people on the Internet. In its simplest forms, "chat" allows one-to-one communications and "Internet Relay Chat" (IRC) allows two or more persons to type messages to each other that almost immediately appear on the others' computer screens. IRC is analogous to a telephone party line, using a computer and keyboard rather than a telephone. This party line has been termed a chat room. With IRC, however, at any one time there are thousands of different chat rooms available, in which collectively tens of thousands of users are engaging in conversations on a vast array of subjects. Moreover, one can create a new chat room to discuss a different topic at any time. Some IRC con-

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\(^{24}\) Users of "open" listservs typically can add or remove their names from the mailing list automatically, with no direct human involvement. Listservs may also be "closed," which only allows for acceptance into the listserv by a human moderator.
5. Real time remote computer utilization

Another method to use information on the Internet is to access and control remote computers in "real time" using "telnet." For example, using telnet, a researcher at a university would be able to use the computing power of a supercomputer located at a different university. A student can use telnet to connect to a remote library to access the library's online card catalog program. Without Internet access, the individual must have a terminal physically connected to a computer. In order to use a different computer, one needs to use a terminal connected to that computer. With the development of telnet, however, any computer on the Internet can serve as a terminal for any other available computer. For example, from Asheville a user could "telnet" to a computer on the Duke campus and the Duke computer would operate as if the individual were using a terminal directly connected to the Duke computer. This allows users access to computer processing power from anywhere in the world.

6. Remote information retrieval

The final major category of communication is the search for and retrieval of information located on remote computers. A simple method uses file transfer protocol ("ftp") to list the names of computer files available on a remote computer and to transfer one or more of those files to an individual's local computer. Another approach uses a program and format named "gopher" to guide an individual's search through the resources available on a remote computer. This technology allows a user to search the files and archives of a remote computer and "download" files physically to a local computer. The protocol provides a consistent and standard system of communication between different computer systems which allows files to be transferred between all systems that can employ ftp.
D. The World Wide Web

The most well-known method of access to the Internet is the World Wide Web ("Web"). The Web utilizes a "hypertext" formatting language called hypertext markup language (HTML), and programs that "browse" the Web can display HTML documents containing text, images, sound, animation and moving video. This language is a dynamic language which takes into consideration the software running on the local computer and formats Web information to match that specific local computer. HTML documents can include links to other types of information or resources, so that while viewing an HTML document that, for example, describes resources available on the Internet, one can "click" using a computer mouse on the description of the resource and immediately be connected to the resource itself. Such "hyperlinks" allow information to be accessed and organized in very flexible ways and allow people to locate and efficiently view related information, even if the information is stored on numerous computers all around the world.

The Web was created to serve as a global, online store of knowledge, containing information from diverse sources. This wealth of information is designed to be accessible to Internet users around the world. Though information on the Web is contained in individual computers, the fact that each of these computers is connected to the Internet allows all of the information to become part of a single body of knowledge. It is currently the most advanced information system developed on the Internet, and has incorporated such previous network information systems as ftp, gopher, wais, and Usenet.

1. History of the world wide web

The Web was originally developed at CERN, the European Particle Physics Laboratory, and was used to allow information-sharing within international teams of researchers and engineers. The Web has extended beyond the scientific and academic community to include communications by individuals, non-profit organizations, and businesses. The World Wide Web is a series of documents stored in different computers all over the Internet. Documents contain information stored in a variety of formats, including text, still images, sounds, and video. An essential ele-

ment of the Web is that every document has an address. Most Web documents contain "links." These are short sections of text or an image which refer to another document. Typically the linked text is blue or underlined when displayed, and when selected by the user, the referenced document is automatically displayed, wherever in the world it actually is stored.

The Web is described as a vast collection of Web pages. A Web page is the contents of a single screen which is viewed by a Web browser. Often these Web pages require a user to scroll down the computer screen to view the entire page. A Web site is a collection of these Web pages much like the organization of a book. The first page viewed when an individual accesses a Web site is referred to as the "home page." The hyperlinks contained on the individual Web pages take the user to either another page in the Web site or to another Web site entirely. From the user's perspective, the user does not know whether the current displayed Web page is part of the Web site or an entirely different Web site. These links from one computer to another, from one document to another across the Internet, are what unify the Web into a single body of knowledge, and what make the Web unique.

2. The web as a medium for publishing

The Web exists fundamentally as a platform on which people and organizations can communicate. When information is made available, it is said to be "published" on the Web, and because of the power of the Web, it can be linked without regard to its status or physical location. Publishing on the Web simply requires that the "publisher" have a computer connected to the Internet that is running Web server software. The Web Server can be as simple as a small personal computer or as complex as a multi-million dollar mainframe. Many Web publishers choose to lease disk storage space in which they place their Web site and thus eliminate the need for actually owning a Web Server.

Information to be published on the Web must also be formatted according to Web standards. These standardized formats

26. For example, a Security number.
27. Two of the most popular browsers are Netscape® and Microsoft Internet Explorer®.
28. Many Web pages are nothing more than a collection of Web sites with hyperlinks.
29. The Web was designed with a maximum target time to follow a link of one tenth of a second.
assure that all Web users who want to read the material will be able to view it. Web standards are sophisticated and flexible enough to meet the publishing needs of large corporations, banks, governmental agencies, courts, newspapers and magazines which now publish "online." At the same time, Web publishing is simple enough that thousands of individual users and small community organizations can publish their own personal "home pages," the equivalent of individualized newsletters about that person or organization.

Web publishers can make their Web sites open to the general pool of all Internet users. Many publishers choose to keep their sites open to all in order to give their information the widest potential audience. In the event that the publishers choose to maintain restrictions on access, however, this may be accomplished by assigning specific user names and passwords as a prerequisite to access to the site. Or, in the case of Web sites maintained for internal use of one organization, access will only be allowed from other computers within that organization's local network.

3. Searching the web

A variety of systems have developed that allow users of the Web to search particular information among all of the public sites that are part of the Web. Services such as Yahoo, Magellan, InfoSearch, Webcrawler, and Lycos are all known as "search engines" which allow users to search for Web sites that contain certain key words. For example, a Web user looking for the text of Supreme Court opinions would type the words "Supreme Court" into a search engine and then be presented with a list of Web sites that contain Supreme Court information. This list would actually be a series of links to those sites. Having searched out a number of sites that might contain the desired information, the user would then follow individual links, browsing through the information on each site, until the desired material is found.

Running on tens of thousands of individual computers on the Internet, the Web is what is known as a distributed system. The Web is designed so that organizations with computers containing information can become part of the Web simply by attaching their computers to the Internet and running appropriate Web software. Like the Internet, no single organization controls any membership in the Web, nor is there any single centralized point from which individual Web sites or services can be blocked from the Web.
From a user's perspective, it may appear to be a single, integrated system, but in reality it has no centralized control point.

The Web's open, distributed, decentralized nature stands in sharp contrast to most information systems that have come before it. Private information services, such as Westlaw and Lexis/Nexis, contain large storehouses of knowledge and can be accessed from the Internet with the appropriate passwords and access software. However, these databases are not linked together into a single whole, as is the World Wide Web.

The Web has become popular because of its open, distributed, and easy-to-use nature. Rather than requiring those who seek information to purchase new software or hardware, and to learn a new system for each new database of information they seek to access, the Web environment makes it easy for users to travel from one information site to another. By the same token, the open nature of the Web makes it easy for publishers to reach their intended audiences without having to know in advance what kind of computer or software each potential reader will be using.

E. Content on the Internet

The Internet is not exclusively, nor even primarily, a means of commercial communication. Many commercial entities maintain Web sites to inform potential consumers about their goods and services, or to solicit purchases, but many other Web sites exist solely for the dissemination of non-commercial information. The other forms of Internet communication, e-mail, bulletin boards, newsgroups and chat rooms, frequently have non-commercial goals. The Internet is an especially attractive means for not-for-profit entities or public interest groups to reach their desired audiences.

The Internet provides an easy and inexpensive way for a speaker or author to reach a large audience, potentially of millions. The start-up and operating costs entailed by communication on the Internet are significantly lower than those associated with the use of other forms of mass communication and publishing, such as television, radio, newspapers and magazines. This allows almost anyone to operate their own Web sites, from large companies to small, not-for-profit groups to individuals. Because of the technology underlying the Internet, the statutory term "content provider," which is equivalent to the traditional "speaker," may actually be a hybrid of speakers. Through the use of HTML,
for example, Critical Path\textsuperscript{30} and Stop Prisoner Rape\textsuperscript{31} link their Web sites to several related databases, and a user can immediately jump from the home pages of these organizations to the related databases simply by clicking on a link. Similarly, a newsgroup gathers postings on a particular topic and distributes them to the newsgroup's subscribers. Users of the Carnegie Library\textsuperscript{32} can read online versions of Vanity Fair and Playboy, and America Online's subscribers can peruse the New York Times, Boating, and other periodicals. Critical Path, Stop Prisoner Rape and the Carnegie Library all make available content of other speakers over whom they have little or no editorial control.

Because of the different forms of Internet communication, a user of the Internet may speak or listen interchangeably, blurring the distinction between "speakers" and "listeners" on the Internet. Chat rooms, e-mail, and newsgroups are interactive forms of communication, providing the user with the opportunity both to speak and to listen. Once one has entered cyberspace, one may engage in any dialogue that occurs. In this medium, the receiver can and does become the content provider, and vice-versa. The Internet is therefore a unique and wholly new medium of worldwide human communication.

**CONGRESSIONAL REACTION TO THE INTERNET**


After failing to pass for several years, the High Performance Computing Act of 1991 became law in December 1991.\textsuperscript{33} This Act created a multi-agency High Performance Computing ("HPC") Program.\textsuperscript{34} The primary purpose of this Act is to accelerate research and development of high performance computing research by authorizing federal funding for new supercomputers, advanced

\begin{footnotes}
\item[31.] Stop Prisoner Rape, (visited Apr. 19, 1998) <http://www.spr.org/>.
\item[34.] See §§ 5511-12 (The HPC is to be developed and implemented by the President through the Federal Coordinating Council for Science, Engineering, and Technology ("FCCSET"), which is chaired by the Chairman of the White House Office of Science and Technology Policy ("OSTP").).
\end{footnotes}
software, and a National Research and Education Network (NREN).\textsuperscript{35}

A major focus of the HPC is the development of the NREN.\textsuperscript{36} The goal of the NREN is to link governmental, educational, and research institutions in all fifty states at gigabit per second transmission rates by 1996;\textsuperscript{37} however, only some of the states have reached gigabit per second transmissions rates by early 1998.\textsuperscript{38} Various federal agencies, including the National Science Foundation, the Department of Defense, the Department of Energy, the Department of Commerce, and the National Aeronautics and Space Administration, are overseeing the development of the NREN.\textsuperscript{39} North Carolina announced its Giganet in February of 1997.\textsuperscript{40}

Although the NREN does not provide much in the way of technical assistance, the goals of the NREN are clear: (1) Establish an open access network that will be the backbone of an advanced permanent information infrastructure; (2) Extend use access to supercomputer centers and to other resources such as databases, software libraries, bulletin boards, and computer conferences; (3) Achieve transparency to users through a very high degree of standardization and user-friendly interfaces; and (4) Serve as a test bed for research and development on high-speed networks and high performance computing.\textsuperscript{41}

Because of the enormous initial investment required, the private sector may be reluctant to invest billions of dollars into an Internet without first seeing its potential demonstrated. It is hoped that the creation of the NREN will demonstrate the potential of high-speed fiber computing networks and serve as a catalyst for the development of a general purpose high-speed Superhighway.

\textsuperscript{35} § 5502.
\textsuperscript{36} § 5512.
\textsuperscript{37} § 5512(a).
\textsuperscript{39} § 5512(a).
\textsuperscript{40} North Carolina Research and Educational Network, (visited Apr. 19, 1998), <http://www.ncren.net/about.html>.

In 1993, legislation was introduced in both the Senate and the House of Representatives to amend the HPC Act of 1991. These amendments would establish an interagency program for the development of specific applications of high-speed computing and networking technologies for education, libraries, health care, and other areas. One such application calls for the digitization, organization and storage of large amounts of electronic information in “digital libraries” and for developing software for searching and manipulating this stored information.

The NII Act of 1993 proposes modifying the NREN program to include three components: (1) Research and development of networking software and hardware required for achieving gigabit data transmissions rates; (2) Experimental test bed networks to develop and demonstrate advanced networking technologies and to support applications requiring levels of network capabilities not commercially available; and (3) Support researchers, educators, and students to obtain access to the Internet.

III. Goals 2000

The Federal Government has implemented the “Technology for Education Act of 1994.” The purpose of this Act is to “support a comprehensive system for the acquisition and use by elementary and secondary schools in the United States of technology and technology-enhanced curricula, instruction, and administrative support resources and services to improve the delivery of educational services.” This includes “national leadership with respect to the need for . . . appropriate technology-enhanced curriculum, instruction, and administrative programs to improve learning in the United States, and to promote equal access for all students to educational opportunities in order to achieve the
National Education Goals by the year 2000." As part of this program, Congress has enacted several programs to support technology in the educational systems.

A. Dwight D. Eisenhower Professional Development Program

The Dwight D. Eisenhower Professional Development Program was designed by the Federal Government for the improvement of teaching and learning through sustained and intensive high-quality professional development activities in the core academic subjects at the State and local levels. This Program authorized "grants to State educational agencies for the improvement of teaching and learning through sustained and intensive high-quality professional development activities in the core academic subjects at the State and local levels."

As part of this program, "each application . . . shall include a State plan that is coordinated with the State's plan under other programs assisted under this chapter, [including] the Goals 2000 . . . ." "Each such State plan shall describe how the State will use technology, including the emerging national information infrastructure [the Internet], to enhance the professional development of teachers, and, where appropriate, administrators and pupil services personnel."

B. National Programs For Technology In Education

"The Secretary [is required to] develop and publish not later than 12 months after October 20, 1994, and update when the Secretary determines appropriate, a national long-range plan that supports the overall national technology policy . . . ." The purpose of the policy is "to promote the use of technology in education, training, and lifelong learning, including plans for the educational uses of a national information infrastructure . . . ."
C. Executive Order 12999

In Executive Order 12999, the President stated that the Federal Government is committed to working with the private sector to promote four major developments in American education: making modern computer technology an integral part of every classroom; providing teachers with the professional development they need to use new technologies effectively; connecting classrooms to the National Information Infrastructure; and encouraging the creation of excellent educational software. The Executive Order streamlined the transfer of excess and surplus Federal computer equipment to our Nation's classrooms and encouraged Federal employees to volunteer their time and expertise to assist teachers and to connect classrooms.

NORTH CAROLINA'S DEVELOPMENTS CONCERNING THE INTERNET

I. The North Carolina GigaNet

A 2.4-gigabit network designed to link educational, commercial and government institutions in North Carolina was completed in early 1997 and is now operational, serving as a precursor to the next-generation of the Internet. The portion of the network put into operation in early March 1997 ties together a partially state-supported private technology development center, Microelectronics Center of North Carolina (MCNC), a private university, Duke University, and two public universities, North Carolina State University and the University of North Carolina at Chapel Hill. This effort was launched under the name "the North Carolina GigaNet." The steering committee for the GigaNet includes Duke University, North Carolina State University, the University of North Carolina at Chapel Hill, Cisco Systems, IBM Corporation, Nortel, Time Warner Communications and the North Carolina state government.

62. For additional information concerning the Internet2, see About Internet 2, (visited May 4, 1998) <http://www.internet2.edu/html/about_i2.html>.
64. Id.
65. Id.
66. Id.
The design and construction of GigaNet is designed to provide high speed network access for educational institutions on applications as opposed to merely providing connections. These applications include distance learning, collective research, and new forms of publication. The GigaNet is also designed to help with local Internet access needs. As traditional educational boundaries expand, the GigaNet may become more important to faculty members and students who live and work off-campus.

The North Carolina GigaNet is shown below:

![NC GigaNet Diagram](image)

II. NC-REN (North Carolina Research and Education Network)

NC-REN is a private telecommunications network owned and operated by the Information Technologies Division of MCNC, to interconnect universities, research institutions, graduate centers, nonprofit organizations, government laboratories, and industries in North Carolina. NC-REN is actually two networks: NC-REN Video Network and NC-REN Data Network. Both are carried over NC-REN's private microwave facilities that span 453 path miles from Asheville to Greenville. Parts of the network are currently routed over the North Carolina Information Highway (NCIH).

67. The GigaNet is based on a 2.4 Gbs network using fiber connections provided by Time Warner Communications, Nortel transmission equipment and Cisco switching and routing equipment.


69. Id.

70. Id.

71. The NCIH is a lower speed network which currently connects the State University Systems as well as various research and governmental networks.
NC-REN was developed with the following objectives: (1) To provide and operate an advanced communications network for research and education; (2) To build a collaborative university and industry program; (3) To serve as a test bed for next-generation services and systems; (4) To participate in deployment of the National Research and Education Network (NREN) for North Carolina; and (5) To develop high-performance capabilities in visualization, supercomputing, and distributed systems.72

According to the North Carolina Research and Education Network (NC-REN), the current North Carolina network connects over 70,000 host computers across the state. Private microwave facilities provide T1 to T3 data communications to 5 universities and public and leased OC3 lines utilize ATM SONET for 10Mbs to 155Mbs Internet Service to the other Points of Presence and major colleges and universities. T1 and 56k leased line circuits are used for most of the other educational and research institutions. Currently NC-REN has a two 45Mbs links to the Internet backbone.73

Following is a summary of the connections comprising the network which connects the 16 Universities and the 40 private and community colleges.74

<table>
<thead>
<tr>
<th>COLLEGE OR UNIVERSITY</th>
<th>CONNECTIONS</th>
<th>CONNECTIONS TO POP75</th>
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<tr>
<td>University of North Carolina at Wilmington (UNCW)</td>
<td>10M76 NCIH77 to NC-REN T178 circuit to ECU POP</td>
<td>Cape Fear Community College Hoggard High School</td>
</tr>
<tr>
<td>East Carolina University (ECU)</td>
<td>T1 microwave79 to NC-REN 10M NCIH to NC-REN</td>
<td>Barton College Chowan College Coopers Elementary School Craven Community College Jones County Schools Louisburg College NC Wesleyan College Northside High School</td>
</tr>
<tr>
<td>State Information Processing Service (SIPS)</td>
<td>20M NCIH to NC-REN 10M Ethernet80 to NC-REN</td>
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74. Id.
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<tr>
<th>Institution 1</th>
<th>Service 1</th>
<th>Institution 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth City State University (ECSU)</td>
<td>10M NCIH to NC-REN&lt;br&gt;T1 leased line to ECU</td>
<td>Roanoke Bible College</td>
</tr>
<tr>
<td>North Carolina State University (NCSU)</td>
<td>T3 microwave to NC-REN&lt;br&gt;T1 circuit to FSU&lt;br&gt;POP&lt;br&gt;T1 circuit to MCNC</td>
<td>East Carolina University&lt;br&gt;NC General Assembly&lt;br&gt;Meredith College&lt;br&gt; Mt. Olive College&lt;br&gt;NC Center for Independent Higher Education&lt;br&gt; Peace College&lt;br&gt;St. Augustines College&lt;br&gt;St. Mary's College&lt;br&gt;Shaw University&lt;br&gt;Wake Technical Community College</td>
</tr>
<tr>
<td>Fayetteville State University (FSU)</td>
<td>10M NCIH to NC-REN&lt;br&gt;T1 circuit to UNCP&lt;br&gt;T1 circuit to NCSU</td>
<td>Methodist College&lt;br&gt;Cumberland County Library&lt;br&gt;Lewis-Chapel High School&lt;br&gt;Bladen Community College&lt;br&gt;Campbell University</td>
</tr>
<tr>
<td>University of North Carolina at Pembroke (UNCP)</td>
<td>10M NCIH to UNCW&lt;br&gt;T1 circuit to FSU</td>
<td>St. Andrews Presbyterian College</td>
</tr>
<tr>
<td>University of North Carolina at Chapel Hill (UNC-CH)</td>
<td>155M fiber to NC-REN</td>
<td></td>
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<tr>
<td>University of North Carolina - General Administration (NCGA)</td>
<td>10M NCIH to NC-REN</td>
<td></td>
</tr>
<tr>
<td>Duke University</td>
<td>155M fiber to NC-REN (both primary and back-up)</td>
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<tr>
<td>North Carolina Central University (NCCU)</td>
<td>10M NCIH to NC-REN</td>
<td></td>
</tr>
<tr>
<td>North Carolina A&amp;T State University (NCAT)</td>
<td>T1 microwave to NC-REN&lt;br&gt;5M NCIH to UNCG&lt;br&gt;T1 circuit to UNCC</td>
<td>Bennett College&lt;br&gt;Greensboro Public Library&lt;br&gt;McMichael High School</td>
</tr>
<tr>
<td>University of North Carolina at Greensboro (UNCG)</td>
<td>20M NCIH to NC-REN&lt;br&gt;20M NCIH to BGSM&lt;br&gt;5M NCIH to NCAT&lt;br&gt;T1 circuit to NC-REN</td>
<td>Forsyth County MIS&lt;br&gt;Summitt School&lt;br&gt;Wake Forest University&lt;br&gt;Winston Salem State University</td>
</tr>
<tr>
<td>Winston Salem State University</td>
<td>T1 microwave to NC-REN</td>
<td></td>
</tr>
<tr>
<td>Bowman Gray School of Medicine (BGSM)</td>
<td>20M NCIH to UNCG</td>
<td></td>
</tr>
<tr>
<td>North Carolina School of the Arts</td>
<td>T1 circuit to NC-REN</td>
<td></td>
</tr>
</tbody>
</table>
| University of North Carolina at Charlotte (UNCC) | 4.5M microwave NC-REN  
T1 circuit to ASU  
T1 leased to UNCA  
T1 microwave to NCAT | Belmont Abbey College  
Carolina Medical Center  
Catawba College  
Central Piedmont Community College  
Charlotte Country Day School  
Charlotte/Mecklenburg Library  
Charlotte's Web  
Davidson College  
Gardner-Webb University  
Johnson C. Smith University  
Lenoir-Rhyne College  
Livingston College  
Medical Examiner's Office  
Montreat College  
Providence Day School  
Queen's College  
Wingate University |
| Appalachian State University | 10M NCIH to NC-REN  
T1 circuit to UNCC | Lees-McRae College |
| Western Carolina University | 10M NCIH to NC-REN  
T1 circuit to UNCA  
20M NCIH to UNCA |


76. M indicates Megabit (Mb/s) or "one million units of information (bits) per second." (visited Apr. 10, 1998) <http://www.nando.net/triguide/almanactauditor/terms.html>. Therefore, 10M would indicate ten million bits of information per second.

77. North Carolina Information Highway.

In its simplest definition, the NCIH is nothing more than an extraordinary increase in the capacity to move data over telephone lines. This increase in capacity not only means that data can move faster and in greater quantities, but by providing increased 'bandwidth,' there is the capability to include full motion video images. It is the capability to produce live video images and accompanying audio that has captured the most attention and which holds the greatest promise for innovation and creative use. This high service level is what proponents have most often cited as being the most beneficial aspect of the NCIH, and it is at this level of service to which the user rates have been set. Yet, it is the flexible capacity of the medium which holds the greatest promise.

The North Carolina Information Highway uses state-of-the-art telecommunications technology to provide 'an enormous pipeline' for data, voice, and video and allows information to travel at far greater speeds than have been available. The fiber optic capability employed by NCIH is very fast and virtually limitless in bandwidth. It consists of hair-thin glass fibers connected to sophisticated switching equipment in a configuration which allows information to travel at the speed of light.
Federal and state programs have helped increase the use of the Internet and will continue to result in more copyrighted material being placed upon the Internet. As the Internet continues to

(186,000 miles per second) or the equivalent of two billion parts of data per second. And, unlike the technology it replaces, it requires less maintenance and does not require expensive amplification to maintain the strength and integrity of the signal. The main elements of the fiber for NCIH have already been installed by the telephone companies across the State.

After voice, data, and video are digitized, these electronic signals are converted to optical impulses and transmitted from a site through fiber optic lines (SONET) to ATM switches in the network. SONET is a family of high-speed transmission systems for optical fiber communications. The ATM switch has the flexibility to integrate voice, data, and video on the same network at extremely high speeds. The NCIH is the first network in the world to employ these two advanced technologies on such a large scale.

From there, the signals may go through other switches, depending on the final destination. When reaching the intended site(s), the signals are converted back to their original form and reach the target audience as voice, video, and/or data.

78. T1 indicates a “system using time division multiplexing (carrying several signals at once) to carry 24 digital voice or data channels each at 64 kbs over copper wire; total speed is 1.544 Mb/s which is called DS1.” (visited Apr. 10, 1998) <http://www.nando.net/triguide/almanac/auditor/terms.html>.

79. A method of utilizing microwave beam transmissions between points to complete a network which does not require hard lines, but beamed transmissions.

80. Ethernet is the most widely-installed local area network technology. Now specified in a standard, IEEE 802.3, Ethernet was originally developed by Xerox and then developed further by Xerox, DEC, and Intel. An Ethernet LAN typically uses coaxial cable or special grades of twisted pair wires. The most commonly installed Ethernet systems are called 10BASE-T and provide transmission speeds up to 10M. Devices are connected to the cable and compete for access using a Carrier Sense Multiple Access with Collision Detection (CSMA/CD) protocol. Fast Ethernet or 100BASE-T10 provides transmission speeds up to 100 megabits per second and is typically used for LAN backbone systems, supporting workstations with 10BASE-T cards. Gigabit Ethernet provides an even higher level of backbone support at 1000 megabits per second (1 gigabit or 1 billion bits per second).

(visited Apr. 10, 1998) <http://whatis.com/>. These latter two types are what is utilized by the NC-REN network. IEEE if the Institute of Electrical and Electronics Engineers and it acts as the developer of standards that often become national and international standards including those standards governing computer network protocols.
be used by companies, schools and private individuals, authors have an increased task of protecting their works. The ease with which copyrighted work can be copied complicates and magnifies the task of policing protected work.

COPYRIGHT LAW

Copyright law protects the original expression of ideas.\textsuperscript{81} United States Copyright law is grounded in Article I, section 8, clause 8 of the United States Constitution and is governed by the Copyright Act of 1976 and its subsequent amendments.\textsuperscript{82} Internationally, the United States has adjusted its laws to conform to the Berne Convention for the Protection of Literary and Artistic Works, effective March 1, 1989.\textsuperscript{83}

I. The Purpose of Copyright Law

Federal copyright protection is authorized by the Constitution: "The Congress shall have power . . . To promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."\textsuperscript{84} The fundamental purpose of the constitutional grant of copyright is to encourage individuals to produce and disseminate creative works to the public.\textsuperscript{85} By providing authors with exclusive rights to their works, an incentive is created to make their works available to the public.\textsuperscript{86} "[E]ncouragement of individual effort by personal gain is the best way to advance public welfare through talents of authors and inventors in '[s]cience and useful [a]rts.'"\textsuperscript{87} At odds in this "quid pro quo" arrangement are the competing interests of the public and the copyright owner: protecting the exclusivity of the copyright owner while allowing users to access and use the copy-

\textsuperscript{81} M. Nimmer & D. Nimmer, Nimmer on Copyright § 2.01(A), at 2-7 (1995).
\textsuperscript{84} U.S. Const. art. I, § 8, cl. 8.
\textsuperscript{85} Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975).
\textsuperscript{86} See Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 429 (1984). "The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good." Twentieth Century Music Corp., 422 U.S. at 156.
\textsuperscript{87} Mazer v. Stein, 347 U.S. 201, 219 (1954).
righted work. The Internet significantly enhanced the amount of material which can be received by the public. This increased access has given rise to the myth that if the information is on the Internet, it must not be protected.

II. Works Protected By Federal Copyright Law

A. Originality

Copyright protection arises automatically "in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Copyright covers the original expression of an idea but not the idea itself. The term "original" means that the work was created independently by the author as opposed to copied from other works, and that it possesses some minimal degree of creativity.

The statutory list of works eligible for copyright protection presently includes:

88. Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992) ("The interest of the copyright law is not in simply conferring a monopoly on industrious persons, but in advancing the public welfare through rewarding artistic creativity, in a manner that permits the free use and development of non-protectable ideas and processes." Id. at 711.).

89. Many Internet publishers or providers disseminate information free of charge as opposed to traditional publishing methods where individual copies of information are distributed for a fee. For example, Martindale-Hubbell publishes attorney and law firm information free of charge at <http://www.martindalehubbell.com/>. Also, some traditional electronic publishers are supplementing existing services by providing internet access. For example, LEXIS-NEXIS now provides internet access along with electronic legal and news information services. Even though authors are choosing to provide information free of charge, these works are still given copyright protection by Federal Statutes.


91. § 102(b).

literary works; musical works, including any accompanying words; dramatic works, including any accompanying music; pantomimes and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works.

This list of statutory works has expanded as technology has advanced. The definition of "literary works" in 17 U.S.C. § 101 includes expression represented in digitized format. Text, “Literary works’ are works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, film, tapes, disks, or cards, in which they are embodied.” 17 U.S.C. § 101. This definition includes computer programs, computer data bases, and all digital works. H. R REP. No. 94-1476, at 55 (1976).

The term “musical works” is intended to comprise the music and words, and the copyright owner is entitled to “limit the use of the copyright either to the words or music, or to allow both to be used.” Standard Music Roll Co. v. F.A. Mills, Inc., 241 F. 360, 360 (3d Cir. 1917).

“Audiovisual works’ are works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.” 17 U.S.C. § 101. “Motion pictures’ are audiovisual works consisting of a series of related images which, when shown in succession, impart an impression of motion, together with accompanying sounds, if any.” 17 U.S.C. § 101. This definition encompasses a wide range of cinematographic works embodied in films, tapes, video disks, and other media. H. R. REP. No. 94-1476, at 24 (1976).

“Sound recordings’ are works that result from the fixation of a series of musical, spoken, or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes, or other phonorecords, in which they are embodied.” 17 U.S.C. § 101. Sound recordings are to be distinguished from phonorecords. Phonorecords are the “physical objects in which sounds . . . are fixed . . . ” 17 U.S.C. § 101. Sound recordings are the aggregation of sounds, not the tangible medium of expression. H. REP. No. 94-1476, at 55-56 (1976).

“Architectural works’ is the design of a building as embodied in any tangible medium of expression, including a building, architectural plans, or drawings. The work includes the overall form as well as the arrangement and composition of spaces and elements in the design, but does not include individual standard features.” 17 U.S.C. § 101.

For example, the current list of statutory works has expanded with technological advancement including the addition of sound recordings, motion pictures, electronic music, computer programs, multimedia works and digital works.

sounds, images, video, and data can all be represented in digital format.

B. Fixed In A Tangible Medium

A work is fixed in a tangible medium of expression when it is embodied “in a copy or phonorecord\textsuperscript{100} \ldots [and] is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.”\textsuperscript{101} Examples of works fixed in a tangible medium include: a novel written in manuscript form; a tune reduced to sheet music; a sculpture; a work on audiotape, a record or compact disc; software on disk, a ROM chip, or tape; and the broadcast of any live performance that is simultaneously recorded with the broadcast. Floppy disks, hard disks, compact disks, and tape\textsuperscript{102} are tangible mediums of expression within the meaning of 17 U.S.C. § 102(a). Even works that reside in Random Access Memory (RAM)\textsuperscript{103} only momentarily are considered sufficiently fixed.\textsuperscript{104}

Interactive works are also protected under Federal copyright law if they satisfy the originality requirement because they are considered sufficiently fixed even though the sequence of the action can be altered by the user.\textsuperscript{105} However, the electronic

\textsuperscript{100} Copies and phonorecords together comprise all of the material objects in which copyrightable works are capable of being fixed. H. R. REP. No. 94-1476, at 53 (1976).


\textsuperscript{102} Stern Elecs., Inc. v. Kaufman, 669 F.2d 852, 856 (2d Cir. 1982).

\textsuperscript{103} This type of computer memory only exists when the computer is turned on. Therefore, when a computer is switched off, no infringement from this medium can occur since no information resides in this memory.

\textsuperscript{104} MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993) (The court held that the loading of software into RAM creates a copy under copyright law since “the representation created in RAM is ‘sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.’” Id. at 518.).

\textsuperscript{105} 17 U.S.C. § 102(a) (1994). In a case involving video games, the United States Court of Appeals for the District of Columbia held that a player can only choose from a limited number of sequences the video game allows. Atari Games Corp. v. Oman, 888 F.2d 878 (D.C. Cir. 1989). Furthermore, although there is player interaction with the machine during the play mode which causes the audiovisual presentation to change in some respects from one game to the next in response to the player’s varying participation, there is always a repetitive sequence of a substantial portion of the sights and sounds of the game, and many aspects of the
impulses making up a data stream do not fall within the definition of a copyrightable work, even though they may represent a copyrightable work, because the impulses themselves are not fixed during transmission on a network.\textsuperscript{106} For example, the electronic impulses which are transmitted across the Internet are not sufficiently fixed to be copyrightable. Once the transmission reaches its destination and is stored on a hard drive, the fixation requirement is met.\textsuperscript{107}

C. Ideas and Expressions

Copyright protects the expression of ideas, it does not protect ideas themselves.\textsuperscript{108} Copyright protection is not available for abstract ideas, facts, procedures, processes, methods of operation, concepts, principles or discoveries, regardless of the form in which they are described, explained, illustrated, or embodied.\textsuperscript{109} Copyright law also does not extend to expression which is in the public domain.\textsuperscript{110} However, independent creation of an identical work is copyrightable.\textsuperscript{111} There is no criterion of artistic value or intrinsic quality necessary for copyright protection.

Additionally, works of the Federal Government are not protected by copyright and are considered in the public domain except


\textsuperscript{107} The copyright law recognizes that the fixation requirement can be met by fixing the original expression in any now known or later developed medium. 17 U.S.C. § 102(a). Therefore, the definition of "fixed" allows for new technologies to be developed while still providing copyright protection. It is the authors' opinion that Copyright protection will expand to meet these new technologies.

\textsuperscript{108} § 102(b).

\textsuperscript{109} § 102(b).

\textsuperscript{110} Atari Games Corp. v. Nintendo of America, Inc., 975 F.2d 832, 839 (Fed. Cir. 1992). Works may be in the public domain if they do not meet the original requirement for copyright protection, if copyright protection has expired, or if they fall into certain classes of works that are not copyrightable such as the white pages of a phone book or blank forms such as graph paper. See Twin City Books Corp. v. The Walt Disney Co., 83 F.3d 1162, 1165 (9th Cir. 1996) (held that the copyrightable work fell into the public domain when the copyright was not renewed).

\textsuperscript{111} Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49 (2d Cir. 1936).
in limited circumstances.\textsuperscript{112} Copyright protection also does not extend to useful articles unless the form of expression can be identified separately from, and unless it is capable of existing independently from, the useful article.\textsuperscript{113}

The content of electronic databases may be protected under contract law, such as via the use of on-line licenses. An on-line license requires first-time users to read and "sign" an electronic contract projected on their computer screens before obtaining access. Because users assent to the terms of an on-line license prior to purchasing or using a database or service, the problems of adhesion contracts, commonly associated with "shrink-wrap" licenses, may be avoided.\textsuperscript{114}

\textbf{D. Compilations and Derivative Works}

Other types of works which may be protected under copyright law include compilations and derivative works.\textsuperscript{115} A compilation is defined as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."\textsuperscript{116} An example of a compilation is a computer database.

In \textit{Feist Publications, Inc. v. Rural Telephone Service Co., Inc.},\textsuperscript{117} the Supreme Court held that a telephone directory consisting of an alphabetical listing of telephone subscribers' names, addresses, and telephone numbers was not protectable under copyright where it reproduces material that has been copyrighted or where copyrights have been transferred to the U.S. government by assignment bequest or otherwise. § 105.

\textsuperscript{112} See 17 U.S.C. § 105. Works of the U.S. government are protected by copyright where it reproduces material that has been copyrighted or where copyrights have been transferred to the U.S. government by assignment bequest or otherwise. § 105.

\textsuperscript{113} Carol Barnhart, Inc. v. Economy Cover Corp. 773 F.2d 411, 418 (2d Cir. 1985). For example, dresses are not protectable but the fabric or designs on the material can be protected as the design can exist independently of the dress. Folio Impressions, Inc. v. Byer Cal., 937 F.2d 759 (2d Cir. 1991).

\textsuperscript{114} "Shrink-Wrap" licenses are so named because they are printed somewhere on the packaging in a manner visible to the consumer prior to opening of the package. The validity of these license agreements is entirely predicated on the assumption that the consumer assents to the terms of the license agreement after purchasing the software, but before removing the plastic shrink-wrap or opening the package.


\textsuperscript{116} § 101.

\textsuperscript{117} 499 U.S. 340 (1991) (The publisher of a white-pages telephone directory had copied verbatim the names, telephone numbers, and addresses of another publisher's white-pages telephone directory.).
copyright law. The Court rejected the "sweat of the brow" theory that had evolved to protect those who were industrious in their collection of factual material. In *Feist*, the Supreme Court said the "sweat of the brow" doctrine was in direct opposition to two fundamental copyright axioms: (1) the purpose of copyright is not to reward authors, but to increase the wealth of knowledge of society and; (2) no one may copyright facts or ideas. The Supreme Court held that a telephone directory lacked originality because the manner of selecting and presenting names, addresses and phone numbers, did not have the necessary "modicum of creativity" since the choices and arrangement were "mechanical," "garden-variety," "typical" and "obvious." Thus, copyright does not protect against the use of data from a database unless the data is itself protectable or unless the data is arranged in an original format.

Compilations have a particular application to several aspects of Internet utilization. Commonly, individuals designing and constructing material for presentations, school projects, professional proposals, take material from the Internet and include it in their own work. This, usually, is making a copy. The Internet use may very well have created a copyrighted compilation while infringing the copyright of another author. Just because material is on the Internet does not mean that it is free.

118. *Id.*
119. *Id.* at 359-60.

The right to copyright a book on which one has expended labor does not depend upon whether the materials which he has collected consist of matters which are publici juris, or whether such materials show literary skill or originality, either in thought or in language, or anything more than industrious collection. The man who goes through the streets of a town and puts down the names of each of the inhabitants, with their occupations and their street number, acquires material of which he is the author.

Jeweler's Circular Publ'g Co. v. Keystone Publ'g Co., 281 F. 83 (2d Cir. 1922).

120. *Feist*, 499 U.S. at 352. Although "sweat of the brow" is dead as far as copyright law is concerned, it may still be available under an unfair competition theory. *Id.* at 354; International News Serv. v. Associated Press, 248 U.S. 215 (1918). The right to protect news exists at least for the brief period in which it is hot or current.

121. *Feist*, 499 U.S. at 362-64. "Given that some works must fail [to satisfy the requirements for copyright protection], we cannot imagine a more likely candidate." *Id.* at 364. The alphabetized list followed "an age-old practice, firmly rooted in tradition," one "so commonplace that it has come to be expected as a matter of course," or as "practically inevitable." *Id.* at 363.
E. Protection of Fact-Based Databases

The *Feist* decision does not bode well for those trying to encourage owners of fact-based databases to make their works available on the Internet. Not only may the contents of many databases be unprotectable under copyright law, but the selections and arrangements also may be unprotectable as well, if found to be mechanical and routine.\(^{122}\) Furthermore, a computer database, by its very nature, may have no arrangement to protect. Since the data within a database exist in binary format, both invisible and unintelligible without search and retrieval software, there may not be sufficient originality in the arrangement of the data for copyright protection.\(^{123}\)

A solution for the protection of databases may lie with *sui generis*\(^ {124}\) protection or some form of non-copyright statutory protection for computer databases. For example, in Europe, protection for the contents of databases otherwise unprotectable by copyright law has been proposed. Based on the concept of misappropriation, the contents of databases would be protected from unauthorized extraction and use by others for commercial purposes. Although this proposal did not pass in Europe in 1996 and was expected to be discussed again in April of 1997, to date it has not passed.\(^ {125}\) Furthermore, the United States Patent and Trademark Office has stated that it would not endorse any database protection which prevents all uses of the data contained in the database.

III. The Exclusive Rights of Copyright

Subject to the limitations contained within 17 U.S.C. §§ 107 to 120, "the owner of [a] copyright . . . has the exclusive right to do and to authorize any of the following:

- [T]o reproduce the copyrighted work in copies or phonorecords;
- [T]o prepare derivative works based upon the copyrighted work;
- [T]o distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending; [I]n the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other

\(^{122}\) See *Feist*, 499 U.S. at 362.


\(^{124}\) For example, 17 U.S.C. § 117 (1994) was *sui generis* legislation for computer programs under the Copyright Act of 1976.

audiovisual works, to perform the copyrighted work publicly; in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.126

Just like other property rights, each of these rights can be independently licensed, assigned, sold, or given away, in whole or in part on an exclusive or non-exclusive basis.127 For example, the copyright owner of a novel may grant to a particular theater a non-exclusive license to perform his work as a play. However, the author retains his performance rights with respect to other performers and theaters, and he retains his other exclusive rights, as well.

IV. Copyright Infringement

A. The Exclusive Rights

Copyright infringement occurs when any of the copyright owner’s exclusive rights are violated.128 To establish copyright infringement, the plaintiff must show ownership of a valid copyright129 and “copying” by the defendant.130 “Courts generally use the term ‘copying’ as shorthand for a violation of any of the exclusive rights of the copyright owner (not just the reproduction right).”131

127. Rohmer v. Commissioner of Internal Revenue, 153 F.2d 61, 63 (2d Cir. 1946). “A transfer of copyright ownership, other than by operation of law, is not valid unless an instrument of conveyance, or a note or memorandum of the transfer, is in writing and signed by the owner of the rights conveyed or such owner’s duly authorized agent.” 17 U.S.C. § 204(a) (1994).
The plaintiff may prove the defendant's "copying" either by direct evidence (i.e., either admission of copying by defendant or by testimony of a witness to the infringing act) or, as is most often the case, by indirect evidence through a showing of both of the following: (1) The defendant had access to the plaintiff's copyrighted work;\textsuperscript{132} and (2) The defendant's work is substantially similar to the plaintiff's copyrightable material and one of the exclusive rights of the copyright owner is implicated.\textsuperscript{133}

Because of the very nature of the Internet, access should not prove difficult to establish. Furthermore, it does not matter that users may be unaware of their infringing acts because intent or knowledge is not needed to find copyright infringement.\textsuperscript{134}

B. Exclusive Right To Copy

The exclusive right to copy is not limited to strictly literal copying, "else a plagiarist would escape by immaterial variations."\textsuperscript{135} Therefore, copyright protection extends beyond a literary work's strictly textual form to its non-literal components.\textsuperscript{136} Where the fundamental essence or structure of one work is duplicated in another, courts have found copyright infringement.\textsuperscript{137} In \textit{Stewart v. Abend},\textsuperscript{138} the United States Supreme Court recognized that a motion picture may infringe the copyright in a book by using its unique setting, characters, plot, and sequence of events.\textsuperscript{139} It is immaterial that a defendant does not copy other parts of a plaintiff's work if substantial similarity is established with respect to a substantial element of plaintiff's work.\textsuperscript{140}

\begin{itemize}
\item \textsuperscript{132} Evidence that defendant had a reasonable opportunity to view will satisfy the access element when evidence of actual viewing is unavailable. Smith v. Little, Brown & Co., 245 F. Supp. 451, 458 (S.D.N.Y. 1965).
\item \textsuperscript{133} See Walker v. Time Life Films, Inc., 784 F.2d 44, 48 (2d Cir. 1986). Various tests exist throughout the circuits for establishing substantial similarity. Expert testimony and/or layman's testimony is used depending on the circuit and the subject matter (computer programs, movies, etc.).
\item \textsuperscript{134} Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552, 1559 (M.D. Fla. 1993).
\item \textsuperscript{135} Nichols v. Universal Pictures Co., 45 F.2d 119, 121 (2d Cir. 1930).
\item \textsuperscript{136} Copyright has also been extended to protect the structure, sequence and organization of a computer program. Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222 (3d Cir. 1986).
\item \textsuperscript{137} See \textit{e.g.} Stewart v. Abend, 495 U.S. 207 (1990).
\item \textsuperscript{138} 495 U.S. 207 (1990).
\item \textsuperscript{139} \textit{Id.}
\item \textsuperscript{140} Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 56 (2d Cir. 1936) ("[N]o plagiarist can excuse the wrong by showing how much of his work he did not pirate.")
\end{itemize}
The end result of virtually every transmittal of a work across the Internet will involve the exclusive right to copy. Printing to paper, copying to disk, and loading into memory all amount to reproduction.\textsuperscript{141} Infringement may also occur when a copy of a copy is made.\textsuperscript{142} This subsequent copying presents a problem from an enforcement standpoint. Procedures and mechanisms may be able to adequately control initial copying from a protected work; however, subsequent copying of the copy may be beyond the ability of the copyright owner to monitor.

\section*{C. Exclusive Right to Prepare Derivative Works}

A 'derivative work' is a work based upon one or more pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaboration, or other modifications which, as a whole, represent an original work of authorship, is also a 'derivative work.'\textsuperscript{143}

The exclusive right to prepare derivative works is an important right of protection for many works on the Internet. By definition, digitized pre-existing works are derivative works. For example, the colorization of old black and white movies, the scanning of text and images into digital format, and the conversion of analog recordings into digital recordings are all derivative works based on prior copyrighted or public domain material. Multimedia works, by definition, comprise expression from various media, which can be new or preexisting.

Interactive technologies allow users to modify copyrighted works to the point where the end result is no longer substantially similar to the original copyrighted work. It may be questionable whether such modification constitutes infringement, but it is clear that the initial copying of the copyrighted work into the user's

\begin{flushright}
\textsuperscript{141} 'Copy' for purposes of the Copyright Act must of necessity consist of some tangible material object on which the work is 'fixed,' which requires that the material object must, in some manner, take on the physical aspects of the protected work such that the 'copy' of the work may be perceived by an observer, but the fact that [an] infringing copy may be produced in a medium different from that of the protected work is not, in itself, a bar to recovery. Walker v. University Books, Inc., 602 F.2d 859, 859 (9th Cir. 1979).
\textsuperscript{142} Pye v. Mitchell, 574 F.2d 476, 481 (9th Cir. 1978).
\end{flushright}
computer is a violation of the reproduction right. The case law does not establish whether the ultimate derivative work must be substantially similar to the original work to be an infringement, but the principles of fair use\textsuperscript{144} will apply.

D. Exclusive Right to Distribute

Another of the copyright owner's exclusive rights is the right "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending."\textsuperscript{145} "Copies and phonorecords" are collectively defined to be material objects in which copyrightable works are fixed by any method now known or later developed.\textsuperscript{146}

A limitation on the copyright owner's exclusive right of distribution is known as the "first sale doctrine."\textsuperscript{147} Under this doctrine, the owner of a lawfully made copy or phonorecord may sell or otherwise dispose of that tangible copy or phonorecord without the copyright owner's permission.\textsuperscript{148} Once the copyright owner consents to the sale of particular tangible copies or phonorecords of his work, he may not thereafter seek to exercise the exclusive right of distribution with respect to those particular tangible copies or phonorecords. For example, a library which has acquired ownership of a copy of a book is entitled to lend it under any conditions it chooses to impose without violating the copyright owner's distribution rights. However, the right to prohibit copying and subsequent distribution of such copies still remains intact.

Communications over the Internet raise the issue of whether the transmission of a work over the Internet will constitute a distribution, a reproduction, or both. When an electronic file is copied, the original from which the copy is generated is not typically erased. Thus, the copy is transmitted, or published to another, without giving up possession of the original.\textsuperscript{149} This gives the possessor of a digital copy the "copyright equivalent of a license to print money" under the first sale doctrine.\textsuperscript{150} Furthermore, a

\begin{itemize}
\item \textsuperscript{144} See § 107. See infra Section VIII for a discussion on Fair Use.
\item \textsuperscript{145} § 106(3).
\item \textsuperscript{146} § 101 (definition of "copies" and "phonorecords").
\item \textsuperscript{147} § 109(a).
\item \textsuperscript{148} § 109(a).
\item \textsuperscript{150} David Goldberg and Robert J. Bernstein, The Information Infrastructure, New York Law Journal, September 16, 1994, at 3.
\end{itemize}
work uploaded (i.e., copied) onto a bulletin board or FTP\textsuperscript{151} site allows others to download (i.e., copy) the work. If a user downloaded a particular work and did not leave a copy on the bulletin board/FTP site, there would be nothing for other users to download. This would fit the rationale of the first sale doctrine, but defeat the purpose of the bulletin board/FTP site. Moreover, when a copyrighted work located on a bulletin board/FTP site is downloaded by a user, it is not clear whether the copyrighted work is distributed by the bulletin board/FTP site operator or only reproduced by the user. Thus, there is a concern that a copyright owner's exclusive right to distribute will not be protected as works travel the Internet.\textsuperscript{152}

Additionally, the importation of illegal copies or copies legally produced overseas for foreign distribution, but not authorized for distribution in the United States, is an infringement of the copyright owner's distribution right.\textsuperscript{153} With respect to the Internet, the transmission of copyrighted works through international communication lines may not constitute an importation under 17 U.S.C. § 602(a) because no physical copies or phonorecords are being imported.\textsuperscript{154} It has been recommended that 17 U.S.C. § 602 be amended to include importation by carriage or shipping of copies as well as by transmission of them.\textsuperscript{155}

The methods which foreign information is received in the United States poses another interesting dilemma for those wish-

\begin{footnotesize}
\textsuperscript{151} File Transfer Protocol (FTP) is a standard method for transmitting files from one location to another. With FTP both the sending and receiving source know the format in which the information is delivered and are able to recognize the information transmitted. FTP provides a standard format so two computers can understand each other when transmitting files.

\textsuperscript{152} However, a bulletin board operator in Florida was found liable for infringing Playboy magazine's distribution rights when copyrighted photographs were uploaded to the bulletin board by subscribers. Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993). See infra SECTION VII for a discussion of vicarious and contributory liability.

\textsuperscript{153} § 602(a) ("Importation into the United States, without the authority of the owner of copyright . . . of copies or phonorecords of a work that have been acquired outside the United States is an infringement of the exclusive right to distribute copies or phonorecords . . . .").


\end{footnotesize}
ing to have material protected by copyright. The technology employed with the Internet contains several performance enhancement tools. One of these tools is called caching. Caching is when a computer temporarily stores information which has recently been retrieved to make its access to the next user much more efficient. For example, if a user in California is accessing a Web Site of the London Times, the information must travel fiber optic lines between London and the United States. The California computer makes a request and the London computer, after receiving the request, transmits the requested information. This process takes much more time than if the computers were beside each other. To improve performance, the California computer may cache, or make a copy of the requested information and store it locally so when the next Internet user makes a request of London, the information is right there in California.\(^{156}\) When the California computer performs this caching, it is making a copy of the information requested from London. Caching raises many questions. For example, who is the infringer, the entity operating the California computer or the Internet user requesting the information? The current statutes are not equipped to handle these sorts of questions that the technology presents.

\section*{E. Exclusive Right to Perform}

Section 106(4) of Title 17 provides "in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works," the copyright owner has the exclusive right to perform\(^{157}\) the work publicly. Section 106(6) of Title 17 provides "in the case of sound recordings," the copyright owner has the exclusive right "to perform the copyrighted work publicly by means of a digital audio transmission."\(^{158}\)

Only public performances infringe the copyright owner's performance right.\(^{159}\) A work is performed publicly if it is performed

\begin{itemize}
\item[156.] Of course there are elaborate algorithms which determine which information is stored locally based upon time to retrieve, number of requests and other priority factors to enhance the performance of access on the Internet.
\item[157.] To perform a work means to recite, render, play, dance, or act it, either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible.
\end{itemize}
“at a place open to the public or at any place where a substantial number of persons outside of a normal circle of family and its social acquaintances are gathered.”160 However, the number of people actually present is not controlling because a performance is considered public if a substantial number of people can potentially see or hear the performance.161 In Command Video Corporation v. Columbia Pictures Industries,162 a video display system transmitted movies to individual hotel rooms.163 The hotel’s video display system consisted of television receivers in each individual hotel room and devices to transmit a particular movie to a guest’s room.164 The court held that this was a public performance, even though the hotel rooms were not considered to be public places.165 Consequently, if a qualifying work is transmitted such that individual users on the Internet can see or hear it, a public performance has likely occurred.166

F. Exclusive Right to Display

“To ‘display’ a work means to show a copy of it, either directly or by means of a film, slide, television image, or any other device or process or, in the case of a motion picture or other audiovisual work, to show individual images nonsequentially.”167 The display right includes the projection of an image by electronic or other means, “and the showing of an image on a cathode ray tube, or similar viewing apparatus connected with any sort of information storage and retrieval system.”168 The display right also precludes unauthorized transmission of the display from one place to another by a computer system,169 thus including transmission on the Internet.

As with the performance right, an unauthorized display is not an infringement unless it is done publicly. However, because a

163. Id. at 788.
164. Id.
165. Id. at 789. See also Columbia Pictures Indus., Inc. v. Professional Real Estate Investors, Inc., 866 F.2d 278 (9th Cir. 1989).
166. A work performed via the Internet in a classroom or dormitory commons room is likely to be a public performance.
transmission to a network user that enables that user to see or hear a work is considered public, a public display occurs every time a user browses a copyrighted work on the Internet. Consequently, the display right may be the broadest of all the exclusive rights in the context of the Internet, because a majority of uses would constitute a public display.170

V. Civil Remedies For Copyright Infringement

Remedies for copyright infringement include injunctive relief, impoundment and destruction of copies, damages and profits, statutory damages, costs and attorney fees.171 The copyright owner may elect to recover actual damages and any profits172 of the infringer that are attributable to the infringement, or statutory damages.173 The amount of statutory damages per infringement shall not be less than $500 or more than $20,000.174 For each infringement that the copyright holder can prove was willful, the statutory damages may be as much as $100,000 per infringement.175 If the court finds that the infringer was not aware that his acts constituted copyright infringement, the court has the discretion to reduce statutory damages to $200 per infringed work.176 The court may waive statutory damages under certain circum-

170. The presentation of an electronic display also normally includes copying of an electronic file, or at least temporarily storing it in memory, which would violate the exclusive right to copy.
172. “In establishing the infringer’s profits, the copyright owner is required to present proof only of the infringer’s gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work.” § 504(b).
173. § 504(a).
174. § 504(c)(1).
175. § 504(c)(2). See Wow & Flutter Music v. Len’s Tom Jones Tavern, Inc., 606 F. Supp. 554, 556 (W.D.N.Y. 1985) (To prove willful infringement, the plaintiff need not show malice. Reckless disregard of the copyright holder’s rights is one standard for willfulness.); Fallaci v. New Gazette Literary Corp., 568 F. Supp. 1172, 1173 (S.D.N.Y. 1983) (Willfulness has also been sustained by evidence that the infringer knew or should have known that copyrights were being infringed.); Fitzgerald Publ’g Co. v. Baylor Publ’g Co., 807 F.2d 1110 (2d Cir. 1986) (A showing of actual or constructive knowledge was held to be enough for a designation of willfulness.).
stances if an infringer was reasonable in believing that the infringement constituted fair use.\(^{177}\)

**VI. Criminal Penalties For Copyright Infringement**

One who infringes willfully and for commercial advantage or private financial gain may also be punished under the criminal copyright statutes,\(^ {178}\) and all infringing copies or phonorecords may be seized and destroyed.\(^ {179}\) Conviction for willful infringement was thought not to require that the defendant actually realize either a commercial advantage or private financial gain.\(^ {180}\) However, *United States v. LaMacchia*\(^ {181}\) practically held that electronic piracy of copyrighted works could not be prosecuted under Title 17 and 18 of the United States Code for copyright infringement when the defendant does not realize a commercial advantage or private financial gain.\(^ {182}\)

**A. The LaMacchia Loophole.**

David LaMacchia, a 21-year-old student at MIT and computer hacker, used MIT's computer network to access the Internet. Using pseudonyms and an encrypted address, LaMacchia set up an electronic bulletin board which he named Cynosure. He encouraged his correspondents to upload popular software applications (Excel 5.0 and WordPerfect 6.0) and computer games (Sim City 2000). He then transferred these programs to a second encrypted address, Cynosure II, where they could be downloaded by other users with access to the Cynosure password. The worldwide traffic generated by the offer of free software attracted the notice of university and federal authorities. On April 7, 1994, a federal grand jury returned a one count indictment charging

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\(^{177}\) 17 U.S.C. § 504(c)(2).


\(^{179}\) 18 U.S.C. § 506(b) (1994). The maximum penalty is 5 years in prison and $250,000 per individual or $500,000 per organization, where the activity lasted for more than 180 days and involved at least 10 unlawful copies with a total value of at least $2,500. For lesser amounts, the crime is a misdemeanor with lesser penalties. The maximum term of imprisonment for repeat offenders is 10 years. Anyone who fraudulently removes or alters a copyright notice appearing on a copy of a copyrighted work shall be fined not more than $2,500. 18 U.S.C. § 2319(b) (1994).

\(^{180}\) United States v. Cross, 816 F.2d 297, 2 U.S.P.Q.2d 1356 (7th Cir. 1987).


LaMacchia with conspiring with "persons unknown" to violate 18 U.S.C. § 1343, the wire fraud statute. Since LaMacchia could not be shown to have sought to personally profit from scheme to defraud, the case was dismissed.

B. Congressional Response to the LaMacchia Loophole.

Representative Bob Goodlatte of Virginia and Howard Coble of North Carolina introduced H.R. 2265 on July 25, 1997 in direct response to the LaMacchia Case. The bill, called the No Electronic Theft (NET) act, criminalizes computer theft of copyrighted works whether or not the defendant derives a direct financial benefit from the act(s) of theft. The purpose of this act is to better protect the businesses, especially small businesses, which depend upon licensing agreements and royalties to survive. This act amends several sections of Titles 17, 18 and 23 to provide the protection which the criminal copyright statutes and the wire fraud statute do not seem to provide.

The most significant changes are the definitions of “financial gain.” The bill defines “financial gain” as “receipt, or expectation of receipt, of anything of value, including the receipt of other copyrighted works.” The act allows for defendants who steal or help others steal copyrighted works but who otherwise do not profit from the theft to be prosecuted. Testimony from a subcommittee witness stated that it is difficult, if not impossible to prove that money changes hands. Also, the Statute of Limitations is extended to be five years from the current three years.

The clear goal of Congress is to prevent counterfeiting and piracy of intellectual property in the computer industry. Congress, believing that the problem has become worse, seeks to protect the growing industry. Congress realizes that:

intellectual property rights, while abstract and arcane, are no less deserving of protection than personal or real property rights. The intellectual property community will continue its work in educating the public about these concerns, but [Congress] must do [its]...
job as well by ensuring that piracy of copyrighted works will be treated with an appropriate level of fair but serious disapproval. 192

Simply, the NET Act of 1997 clarifies that when individuals use the Internet or other means to sell pirated copies of software, recording, movies, or other creative work, or take works to barter for other property even when they do not intend to profit personally, then such individuals are stealing. 193

VII. Vicarious and Contributory Copyright Infringement

In addition to a direct infringement, one may also be liable under copyright laws for vicarious and contributory infringement. Anyone who profits 194 from the infringing acts of another and who has the right and ability to supervise an infringer will be vicariously liable. 195 Consequently, ignorance of an infringer’s conduct is not a defense. 196 All that is needed is a connection to the infringer, not to the infringing activity. 197

A party can be a contributory infringer under two different scenarios. First, anyone who knowingly induces, causes, or materially contributes to the infringing conduct of another may be liable as a contributory infringer. 198 Merely making a photocopier available to a person that one has reason to know is violating the copyright law would constitute a material contribution to infring-

195. Id. at 308.
196. Id. at 307.
197. For example, a department store chain that leased space in twenty-three of its stores to a phonograph record “concessionaire” was held liable for the concessionaire’s sale of “bootleg” records even though the department store- lessor was unaware of the infringing activity. Id. The court found that the department store obtained a 10% or more share of each sale made by the concessionaire. Id. In another case, the owners of a radio station had sufficient direct financial interest in the infringing activities of others who purchased “air time” and played copyrighted music without permission. Realsongs v. Gulf Broad. Corp., 824 F. Supp. 89 (M.D. La. 1993).
ing conduct and trigger liability. Second, anyone who provides another person with the means to infringe knowing that the person intends to infringe will be liable. The individual providing the means of infringement does not have to engage in the infringing act. Therefore, a librarian who allows a patron to check out a copyrighted work knowing of the patron's intention to illegally reproduce the work may be found guilty of contributory infringement.

These methods of infringement are all applicable to Internet activity. For example, a user subscriber who actually uploads and posts a protected work to the Internet without permission from the copyright owner directly infringes the copyright, regardless of intent. A vicarious infringement occurs when a system operator or Internet service provider (ISP) has the right and ability to exercise control over the activities of its subscribers and reaps a direct financial benefit from the infringing activity. Vicarious

200. Gershwin Publ'y Corp. v. Columbia Artists Management, 443 F.2d 1159, 1161-62 (2d Cir. 1971); See also NIMMER, supra note 81, at § 12.04[A], at 12-63 n. 14.
201. Gershwin, 443 F.2d at 1161-62.
203. See Playboy Enterprises Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993). In Playboy, the operator of a bulletin board service (BBS) was held liable for direct copyright infringement by a subscriber making digital copies of pictures from PLAYBOY magazine and transmitting them to an electronic bulletin board. Instead of suing the subscriber, PLAYBOY sued the system administrator of the bulletin board who was found liable for infringing the copyright owner's exclusive right to publicly display and distribute its photographs. Id. at 1554. The BBS operator said he was unaware of the existence of the copied photographs and removed them once he became aware of their existence, but this defense did not work. Id. at 1563. Playboy was a relatively early case involving ISP liability and is questionable from the standpoint of the court's finding of direct infringement by the BBS operator. The facts of Playboy, however, actually support a finding of vicarious liability since the ISP reaped a direct financial benefit in fees from the subscriber and had the right and ability to control the content of the BBS. See Id. at 1558. Playboy may be explained in that neither direct nor vicarious infringement requires a showing of knowledge or intent. This leads to some confusion in the courts.

Although vicarious liability may be harsh, if the ISP can show that he or she was not aware and had no reason to believe that its subscriber's activity constituted an infringement, the court may find there was an "innocent" infringement. Such a finding is a factual determination, and does not absolve the ISP of liability for the infringement. It does, however, give the court discretion to reduce the amount of damages awarded to the copyright owner.
liability focuses on the relationship between the provider of access to the Internet and users. A contributory infringement is when a system operator or ISP knowingly permits the infringement to occur, without actually uploading the protected work over themselves. Contributory infringement is based on a connection to an infringing activity, and ordinarily requires a showing that the provider was at least aware or should have been aware of the infringement and failed to remove the infringing material from the system.204

Contributory infringement with regard to an ISP may first be explained by the Supreme Court's decision in *Sony Corp. of America v. Universal City Studios, Inc.*,205 a non-Internet case. In this case, the Supreme Court considered whether Sony should be held contributorily liable for copyright infringement for the activities of Video Tape Recorders (VTR)206 consumers.207 The Court held as long as a product is capable of "substantial noninfringing uses," the manufacturer of that product cannot be held contributorily liable for infringement by consumers.208 Consequently, after determining that consumers may employ VTRs for the non-infringing use of taping television programs for later viewing, the Court found Sony was not liable for contributory infringement.209

The *Sony* holding was applied in the ISP context in *Religious Technology Center. v. Netcom On-Line Communication Services., Inc.*210 Specifically, the United States Federal Court for the Northern District of California decided that for an ISP to be held contributorily liable for the infringing activities of one of its subscribers, the ISP has to have either actual or constructive knowledge of the specific copying in question.211 The court decided that

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206. In this particular case, the VTR was the BetaMax Video Tape player. The Beta Player is no longer marketed and the VTR is commonly referred to at a VCR or Video Cassette Recorder.
207. Sony, 464 U.S. at 419.
208. Id. at 418.
209. Id. at 456. One such use was called time shifting. This use was the practice of taping a program in order to watch the program at a later time than when the television station offered the program.
211. Id. at 1373. See also Frank Music Co. v. CompuServe, Inc., 93 Civ. 81-53 (S.D.N.Y. 1995) (A group of music publishing houses filed a class action suit against CompuServe for infringement of the copyright in more than 900 songs. The suit claimed the storage of unauthorized recordings of plaintiffs' works in
Netcom did not have notice of the activities of the subscriber and was not liable in the interest of justice. In reaching this decision, the court considered whether the provider or operator had received complaints about the specific infringing behavior, as well as whether the provider or operator conducted an investigation concerning the complaints. The court also said that the Internet access provider may be contributorily liable if it failed to remove copyrighted works after notification of the infringement by the copyright owner.

Based upon Netcom, an institution providing Internet access may protect itself by implementing and following certain procedures. The purpose of these procedures should be the prevention of copyright infringement or other illegal activity of its users. For example, an ISP can place a system for receiving notice that a user is infringing a copyright. A policy should be in place to remove material violating copyrights when the violation is actually shown. Additionally, these policies should be expressed in the contracts to provide service to the users. These procedures may help to demonstrate the ISP has acted reasonably to avoid contributory liability. Additionally, an ISP should not take any affirmative action which directly results in illegal activity such as copying an authors protected material. Installing and maintaining a computer system should not amount to direct activity.

CompuServe’s database. This case was settled by a negotiated collective licensing fee paid by CompuServe to plaintiffs and agreement to pay $568,000 for past infringements.); Sega Enterprises v. MAPHIA, 948 F. Supp. 923, (N.D. Cal. 1996) (The court held the system operator liable for contributory infringement based on its “role in copying, including provision of facilities, direction, knowledge and encouragement.” The operator advertised, distributed and sold special copiers, “the only substantial use” of which was to copy the plaintiff’s video games. Liability was based on the operator’s active participation in the infringement. In fact, the district court ruled in favor of Sega on summary judgment.); Central Point Software Inc. v. Nugent, 903 F. Supp. 1057 (E.D. Tex. 1995) (The court awarded $30,000 in damages to the copyright owner, permanently enjoined the BBS defendant from further acts of infringement and ordered the defendant (a BBS operator) to deliver to the aggrieved copyright owner modems, disk drives, central processing units and all other articles by means of which unauthorized copies of plaintiff’s software were made. This case found the operator had taken an active part in the copyright infringement and the judgment against the defendant was granted by summary judgment.).

213. Id.
214. Id. at n. 20.
215. In Netcom, the computer system automatically forwarded messages received from subscribers and temporarily stored copies on the system. Id. at
In another ISP liability case, *Adobe v. C2Net*, C2Net, an ISP, was alleged to have used its Internet sites and server to distribute computer programs, including "Cracker tools" and other devices designed to defeat copy-protections. Additionally, it was alleged that C2Net provided links to other Internet sites which contained unauthorized copies of the plaintiffs' software. The plaintiff claimed that C2Net was liable as a contributory infringer of plaintiff's software, by virtue of the fact that subscribers lease server space and Internet services from C2Net. The *Adobe v. C2Net* litigation raised several issues concerning liability of ISPs.

A. **Contributorily liable for copyright infringement when ISP's merely lease space to subscribers who in turn post infringing material.**

In *Netcom*, the court indicated in dicta that the imposition of contributory liability on an ISP should depend upon: (1) the ISP's level of knowledge before entering into the ISP-Subscriber agreement; and (2) participation in the subscribers' activity after entering the agreement. The *Netcom* court held that liability may be found based upon knowledge gained by an ISP after entering into the ISP-Subscriber agreement. Additionally, it held that failure to take simple available steps to prevent further acts of known infringements, as opposed to actual inducement, may be sufficient to establish contributory infringement.
B. General notice 222 through e-mail to an ISP that a subscriber is infringing a copyright probably does not constitute sufficient notice under the copyright laws.

While refusing to hold that liability must be unequivocal in order to serve as notice, the court did agree that a mere unsupported allegation of infringement does not automatically put a defendant on notice. 223 Further, where a defendant is unable to reasonably verify a claim of infringement, the defendant’s lack of knowledge may be found reasonable, absolving her of liability. 224

C. A user may violate the copyright laws by providing a link to a web page containing infringing material.

The use of a link to another Web page may be a contributory, but not a direct infringement. At a minimum, a notice of such infringement would be necessary to establish the requisite knowledge to prove contributory infringement. In addition, whether the link has “significant noninfringing uses” must also be decided. This task becomes even more difficult due to the dynamic nature of Web pages. For example, this allegedly infringing matter could have been placed on the linked page after the link was created.

D. An ISP is probably not contributorily liable if one of its subscribers provides a link to a web page containing allegedly infringing material.

Generally, the ISP’s position is simply too remote to justify contributory liability for a user adding a link to infringing material. 225 Obviously, if the ISP subscriber responsible for creating the link is not liable as an infringer, then liability should not be imputed to the ISP. The relation between the ISP and the linked, allegedly infringing, Web cites should be too remote for the courts to find the ISP contributorily liable.

The copyright owner of a work has the exclusive right to copy, distribute, perform, and display the work, and to prepare derivative works from the copyrighted work. Unless, the work is no longer protected by copyright, permission has been obtained from

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222. A general notice is a notice which does not identify the subscriber or the allegedly infringing material.
224. Id. at 1374 (citing Select Theaters Corp. v. The Ronzoni Macani Corp., 59 U.S.P.Q. 288, 291 (S.D.N.Y. 1943)).
225. This is assuming that there was no activity which may have induced the user to add an infringing link.
the copyright owner, or there is a statutory exception, copyright infringement occurs when any of these exclusive rights are violated. Statutory exceptions to copyright infringement are contained in 17 U.S.C. § 107-20. Following are a few of the more relevant sections.


The "Fair Use" doctrine allows a court to avoid rigid enforcement of the exclusive rights when such enforcement would stifle the very creativity that copyright law is designed to promote. A determination of fair use is made on a case-by-case basis. The Copyright Act sets forth the following non-exclusive, four-factor test for deciding whether a particular use of copyrighted material, that otherwise would constitute an infringement, should be considered a fair use:

the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes;
the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole;
and the effect of the use upon the potential market for or value of the copyrighted work.226

Applying the facts of each case, a court balances these four factors and determines whether the copying weighs for or against fair use. By Congressional intent, there are no bright-line rules for what is or is not a fair use; however, there are certain trends within each of the four factors that have emerged from the courts that provide some guidance. There are also guidelines that have been developed for making the fair use determination.

A. The Purpose and Character of the Use

In general, the following types of uses will weigh in favor of fair use: criticism, comment, news reporting, teaching, scholarship, and research. Issues of public concern, such as gun control or illegal drug prevention, are given greater leeway as far as fair use is concerned. Other factors include:

Substitute vs. Supplanting Use: Uses that are not merely substitutes for the original copyrighted work, but that use the copied material for some new objective or purpose generally weigh in favor of fair use. Uses that have the purpose of supplanting the copied work generally weigh against fair use.

Commercial Use: Uses for commercial purposes generally weigh against fair use, while non-commercial uses generally weigh in favor of fair use. Several years ago, the Supreme Court changed the way commercial activity is viewed with respect to fair use.\(^{227}\) Although the commercial nature of a copier's use weighs against a finding of fair use, it is no longer considered conclusive of not being fair use, but rather one factor to be weighed along with the others.

Good Faith and Fair Dealing: Also relevant is the good faith and fair dealing of the copier. Copying in bad faith, for example, copying another's work for the purpose of beating the copyright owner to be the first to publish, will weigh against fair use.

Parody: A parody of a copyrighted work will generally weigh in favor of fair use.\(^{228}\) The commercial character of a song parody does not create a presumption against fair use.\(^{229}\) For purposes of determining whether a parody of a copyrighted work is "fair use," the inquiry focuses on whether the new work merely supersedes the object of the original creation or whether and to what extent it is "transformative" and alters the original work with a new expression, meaning or message.\(^{230}\)

B. The Nature of the Copyrighted Work

Fictional vs. Factual Works: Fictional works are entitled to greater copyright protection than factual-oriented works because of the respective higher and lower degrees of creativity involved. A finding of fair use is more likely if the copied work is a compilation of facts or historical information, rather than a creative or imaginative work. For example, copying a news broadcast is more likely to be permitted than copying a motion picture. Consequently, copying a novel, such as *Gone With the Wind*, will generally weigh against fair use.

Consumable Work: The fact that a copyright owner intended his or her copyrighted work to be consumed by the purchaser,


\(^{228}\) Campbell, 510 U.S. at 569-70.

\(^{229}\) Id.

\(^{230}\) Id. at 579.
such as workbooks and answer forms, makes a finding of fair use less likely when the work is copied.  

Availability of the Work: Another relevant aspect of the nature of the copied work is whether or not the work is available. If the work is out of print or unavailable for purchase through normal channels, this factor will generally weigh in favor of fair use when the work is copied.

First Right of Publication: Whether a work is published or unpublished is also important. More copying from published works will be tolerated than from unpublished works.

C. Amount and Substantiality of the Portion Copied

Quantity Taken: A finding of fair use is more likely if the quantity taken of the copyrighted material is small in relation to the size of the work as a whole.

Quality Taken: Additionally, a qualitative analysis must be made of the portion copied from a copyrighted work. A finding of fair use is more likely if the importance of the portion copied in relation to the whole is small. If what is taken is the “heart” of the work, fair use is less likely.

D. The Effect on the Market or Value of Copyrighted Work

Impact on the Market: A negative effect on the economic value of a copyrighted work, as a result of copying, will generally weigh against fair use. A court will consider not only the extent of market harm caused by the particular actions of the alleged infringer, but also whether unrestricted and widespread conduct of the sort engaged in by the copier would result in a substantially adverse impact on the potential market for the original.

Economic Effect on Derivative Works: A negative effect on the economic value of derivative works as a result of copying will generally weigh against fair use.

233. Id. at 565.
234. Id. at 568.
235. Id.
E. Current Fair Use Guidelines

These current fair use guidelines concern non-profit educational institutions and represent the consensus of the Committee of Educational Institutions as to the fair use of certain materials in classrooms, such as books and periodicals, music, and off-air recordings. These guidelines state the minimum standards for fair use under 17 U.S.C. § 107 and are not designed to limit the judicial determinations existing under 17 U.S.C. § 107. Additionally, there are situations which are not included in one of the below categories but, nevertheless, are permitted uses under the fair use doctrine.

1. Books and Periodicals

A single copy may be made for a teacher for use in his or her individual scholarly research or in teaching. The teacher may make a copy of: a chapter in a book; an article from a periodical or newspaper; a short story, short essay or short poem (whether or not from a collective work); a chart, graph, diagram, drawing, cartoon or picture from a book, periodical or newspaper. Multiple copies may also be made for pupils in a classroom, but this is not to exceed one copy per student. However, the copy must meet the tests for brevity, spontaneity, and cumulative effect. Each copy must contain a notice of copyright.

   a. Brevity

If a poem is less than 250 words, it may be copied in its entirety. Longer poems are limited to excerpts of 250 words. Complete prose may be copied, but are limited to 2,500 words. Excerpts from prose must be limited to 1,000 words or 10%, which ever is less, but in any event, a minimum of 500 words. Copying of

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237. Specifically, for books and periodicals, this group consisted of the Ad Hoc Committee of Educational Institutions and Organizations of Copyright Law Revision, the Authors League of America, Inc., and the Association of American Publishers Inc. For music the group also included: Music Publisher's Association of the United States, Inc.; National Music Publishers' Association, Inc.; Music Teachers National Association; the Music Educators National Conference; the National Association of Music Schools and the Ad Hoc Committee on Copyright Law Revision.
239. H.R. REP. No. 94-1476.
illustrations are limited to one chart, diagram, cartoon or picture per book of periodical issue.

b. Spontaneity\textsuperscript{240}

The copying must be at the instance and inspiration of the individual teacher and the decision to use to the work and the monument of its use must be so close in time that it would be unreasonable to expect a timely response to a request for permission.

c. Cumulative effect\textsuperscript{241}

The copied material can be used for only one course in the school. No more than one short poem, article, story, essay or two excerpts may be copied from the same author during one class term. Additionally, no more than three excerpts from the same collective work or periodical volume may be copied during one class term. There cannot be more than nine instances of multiple copying from one course during one class term. These limitations, however, do not apply to current news periodicals and newspapers and current news selections from periodicals.

d. Additional limitations\textsuperscript{242}

Copying shall not be used to create, replace or substitute for anthologies, compilations, or collective works. No copying of material which is "consumable" shall occur. For example, no copying is allowed for workbooks, exercises, standardized tests, test booklets, answer sheets or other consumable materials. Additionally, copying cannot be a substitute for the purchase of books, publisher's reprints or periodicals. Copying cannot be directed by a higher authority; i.e. the teacher must make the decision to reproduce material. Such copying cannot be repeated by the same teacher from term to term. Lastly, no charge to the student may be made in excess to the cost of reproduction.

Under these guidelines, a teacher may not use material located on the Internet as substitution for a textbook. For example, a teacher teaching a journalism class wishes to make use of the U.S. News Web Site\textsuperscript{243}. If the teacher prints material from the web sites and regularly used downloaded material in her class,

\textsuperscript{240} H.R. REP. No. 94-1476.
\textsuperscript{241} H.R. REP. No. 94-1476.
\textsuperscript{242} H.R. REP. No. 94-1476.
U.S. News may defeat the fair use exception since the teacher may be using the information in place of a subscription. U.S. News Web Site includes the copyright notice which, in part, states:

Copyright © 1996, U.S. News & World Report, Inc. All rights reserved. U.S. News & World Report, Inc., 2400 N Street, N.W., Washington, D.C. 20037. . . . U.S. News retains the copyright in all of the material on these Web pages as a collective work under copyright laws. You may not copy, republish, redistribute or exploit in any manner any material from these pages without the express written consent of U.S. News & World Report.244

The safer course would be to obtain subscriptions for each student when substantial material is used regularly for the class.

2. Music

An institution is allowed to make an emergency copy for replacing purchased copies which are not available for immediate performance provided that the institution will purchase replacement copies in due course. Copies may also be made for academic purposes subject to amount of material limitations.245 Other copying which is allowed includes: purchased printed copies that are edited, provided that the fundamental character of the work is not distorted; single copies of a student performance for evaluation or rehearsal purposes; and copies to construct aural exercises or examinations. An institution may not make a copy to replace, create or substitute for anthologies, compilations or collective works.

In 1992, the On-Line Guitar Archive246 (OLGA) was formed as a database of printed guitar music which appeared in several newsgroups. Since the nature of newsgroups is to have messages deleted after several days, the OLGA was designed to preserve this guitar music in an archive located at the University of Nevada at Las Vegas (UNLV). In January, 1996, EMI Publishing sent a letter to UNLV alleging that it was in breach of U.S. copyright law by allowing OLGA to operate and requested UNLV obtain a license from EMI. UNLV suspended the site on February


245. No copy can be a performance unit and the amount copied must be less than 10%.

8th while it considered its response.\textsuperscript{247} On April 25th, however, UNLV decided that it could not take the financial risks involved with a legal battle with EMI, and so it decided to make its decision to deny FTP access to OLGA permanently.\textsuperscript{248} From the actions of EMI, many other FTP or "mirror sites" containing OLGA material have been shut down.\textsuperscript{249}

In February of 1995, a graduate student at the University of New Brunswick started an interactive Web-based game called "Name That Tune." Competitors downloaded 1 to 4 second sound bytes and attempted to identify the song and artist.\textsuperscript{250} Except for the name, the Web site had no resemblance to the "Name That Tune" television program. The television program had contestants racing to determine who first could identify a song being played by the Harry Salter Orchestra. Lawyers for Salter's family had registered the phrase "Name That Tune" with the United States Patent and Trademark Office 10 years earlier. The Salter family notified the University of New Brunswick, in March of 1996, that the Web site was not authorized to use the title and threatened legal action unless the game was stopped. On April 18, 1996, the University complied and the Web site was shut down.\textsuperscript{251} Unfortunately, this situation leaves unanswered whether using the Internet to download a sound file containing a snippet-sized CD excerpt is a copyright violation.


\textsuperscript{249} It is to be noted that EMI chose to contact the University and not the OLGA organization itself. "OLGA tried to contact EMI directly, but since EMI's representative did not seem to realize the involvement of OLGA as a body separate from UNLV, EMI refused to talk with them." The On-Line Guitar Archive (visited Mar. 2, 1998) <http://www.olga.net/emi.html>.

\textsuperscript{250} The only prize was a high rating on a winners list.

\textsuperscript{251} Earlier this year, Interactive Imaginations Inc., which operates a commercial Web-based game site from its Manhattan headquarters, successfully negotiated for the exclusive use of "Name That Tune" in cyberspace. This company planned to launch a Java-based version of "Name That Tune" on its "Riddler" site later this summer. Because the site awards cash prizes, security procedures have slowed the implementation of the game. The company does not believe there is a copyright problem with using the name of the DC-Comic villain "The Riddler."
3. Off-Air Recordings

These guidelines are designed to apply only to off-air recording by non-profit educational institutions. A broadcast may be recorded off-air simultaneously with the broadcast transmission and retained by non-profit educational institutions for 45 days from the date of recording. After 45 days, all recordings must be erased or destroyed. Off-air recordings may be used once by individual teachers in the course of teaching but may only be repeated when instructional reinforcement is necessary. The replay must be in a classroom or other location of instruction and occur within 10 days of the recording. Recordings may only be made at the request of and for use by teachers. No broadcast program may be recorded more than once by any individual teacher. After the first 10 days, the recording can only be used for the teacher's evaluation purposes. Educational institutions are expected to control these procedures to maintain the integrity of these guidelines.

F. The Conference on Fair Use (The Proposed Fair Use Guidelines)

1. Introduction

On Sept. 27, 1996, fair use guidelines for educators and students who develop multimedia projects using portions of copyrighted works were adopted in a "non-legislative" report by the House Subcommittee on Courts and Intellectual Property. The purpose of these guidelines is to provide guidance on the application of fair use principles by educational institutions, educators, scholars, and students who wish to digitize copyrighted visual images under fair use rather than seeking authorization from the copyright owners for non-commercial educational purposes. The guidelines were developed in four principal areas: Digital Images; Distance Learning; Educational Multimedia and Library Use of Software.

252. After 45 days, all recordings must be erased or destroyed.
253. This can include a home when the student is receiving home instruction.
254. In the remaining 35 days, the recording can not be used for student exhibition.
255. 52 Pat. Trademark & Copyright J. (BNA) at 730 (1996).
256. 53 Pat. Trademark & Copyright J. (BNA) at 125 (1996).
a. Digital images

Under the guidelines, educational institutions are allowed to use digital images in certain non-infringing ways: First, educational institutions may digitize lawfully acquired images unless they are readily available for purchasing or licensing at a fair price. Also:

Images [may] be digitized and reduced to create "thumbnail images" for visual catalogs issued by such institutions, although use of digitized images would be subject to time limitations.

Educators [may] display digital images for face-to-face teaching and for research at non-profit institutions. Reproducing and publishing images in print or digital form is not included in the guidelines, however, even for scholarly publications.

Students may use digital images for course assignments, and retain their academic work in personal portfolios for later uses in graduate school or employment applications.

The guidelines urge caution in using downloaded images since they may contain a mix of copyrighted and public domain works.257

The courts are the final authority on whether a particular use is fair use.258 Uses that exceed these guidelines may or may not be fair use. These guidelines do not affect traditional works which have not been protected by Copyright Law.259

The proposed guidelines include definitions of certain key terms.260 Educational institutions, for example, are defined as nonprofit organizations whose primary purpose is supporting the nonprofit instructional, research, and scholarly activities of educators, scholars, and students.261 Educational purposes are defined as non-commercial instruction or curriculum-based teaching by

257. Id. at 115.
258. These guidelines represent the committee’s consensus of conditions under which fair use should generally apply and examples of when permission is required.
259. The limitations and conditions set forth in the guidelines do not apply to works in the public domain, such as U.S. government works or works on which copyright has expired for which there are no copyright restrictions, or to works for which the individual or institution has obtained permission for the particular use.
260. The following definitions are contained in § 1.4 of the CONFU Guidelines. 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125.
261. Examples of educational institutions include K-12 schools, colleges, and universities. Now libraries, museums, hospitals, and other nonprofit institutions also are considered educational institutions under this definition when they
educators to students at nonprofit educational institutions, and research and scholarly activities are defined as planned non-commercial study or investigation directed toward making a contribution to a field of knowledge and the non-commercial presentation of research findings at peer conferences, workshops, or seminars.

Educators are faculty, teachers, instructors, curators, librarians, archivists, or professional staff who engage in instructional, research, or scholarly activities for educational purposes as their assigned responsibilities at educational institutions; independent scholars also are considered educators under this definition when they offer courses at educational institutions. Students are participants in instructional, research, or scholarly activities for educational purposes at educational institutions.

A digital image is a visual work stored in binary code. Examples include bit-mapped images (encoded as a series of bits and bytes each representing a particular pixel or part of the image) and vector graphics (encoded as equations and/or algorithms representing lines and curves).

An analog image collection is an assemblage of analog visual images systematically maintained by an educational institution for educational purposes in the form of slides, photographs, or other stand-alone visual media. A pre-existing analog image collection is one in existence as of December 31, 1996. A newly acquired analog visual image is one added to an institution's collection after December 31, 1996.

A visual online catalog is a database consisting of thumbnail images of an institution's lawfully acquired image collection, together with any descriptive text including, for example, provenance and rights information that is searchable by a number of fields. A thumbnail image, as used in a visual online catalog or image browsing display to enable visual identification of records in an educational institution's image collection, is a small scale, typically low resolution, digital reproduction which has no intrinsic commercial or reproductive value.

i. Use of visual images and digital images

"As photographic and electronic technology has advanced, the making of high-quality reproductions of visual images has become easier, cheaper, and more widely accessible. However, the fact
that images may be easily available does not automatically mean they can be reproduced and reused without permission."  

In dealing with visual images, there may be intellectual property rights in the chain from the original work through additional stages of reproduction. 

Often, a digital image is several generations removed from the visual image from which it was reproduced. For example, a digital image of a painting may have been scanned from a slide, which was copied from a published book that contained a printed reproduction of the work of art; this reproduction may have been made from a color transparency photographed directly from the original painting. 

The rights in images in each of these layers may be held by different rightsholders. Obtaining rights to use one does not automatically grant rights to use another, and therefore all must be considered when analyzing the rights connected with an image.

**ii. Newly acquired analog visual images**

Various uses are permitted which do not constitute copyright infringement under the guidelines. 

An educational institution may digitize newly, lawfully acquired analog visual images to support the permitted educational uses under these guidelines unless such images are readily available in usable digital form for purchase or license at a fair price. Images that are readily available in usable digital form for purchase or license at a fair price should not be digitized for addition to an institutional image collection without permission.

"An educational institution may create thumbnail images of lawfully acquired images for inclusion in a visual catalog for use at the institution. These thumbnail images may be combined with

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262. 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125 (1996).
263. An original visual image is a work of art or an original work of authorship (or a part of a work), fixed in digital or analog form and expressed in a visual medium. Examples include graphic, sculptural, and architectural works, as well as stills from motion pictures or other audio-visual works. A reproduction is a copy of an original visual image in digital or analog form. The most common forms of reproductions are photographic, including prints, 35mm slides, and color transparencies. The original visual image shown in a reproduction is often referred to as the "underlying work."
265. Id.
266. Id. (§ 2.1 of proposed fair use guidelines).
An educational institution may display and provide access to images digitized under these guidelines through its own secure electronic network. When displaying digital images on such networks, an educational institution should implement technological controls and institutional policies to protect the rights of copyright owners and use best efforts to make users aware of those rights. In addition, the educational institution must provide notice stating that images on its secure electronic network shall not be downloaded, copied, retained, printed, shared, modified, or otherwise used, except as provided for in the permitted educational uses under these guidelines.

"An educational institution may display a visual online catalog, which includes the thumbnail images created as part of the institution’s digitization process, on the institution’s secure electronic network, and may provide access to such catalog by educators, scholars, and students affiliated with the educational institution."

iii. Course compilations of digital images.

The guidelines also address compilation of digital images. An educational institution may display an educator’s compilation of digital images on the institution’s secure electronic network for classroom use, after-class review, or directed study, provided that there are technological limitations (such as a password or Personal Identification Number (PIN)) restricting access only to students enrolled in the course.

The institution may display such images on its secure electronic network only during the semester or term in which that academic course is given. Electronic access to, or display or distribution of, images digitized under these guidelines, including the thumbnail images in the institution’s visual online catalog, is not permitted beyond the institution’s own electronic network, even for educational purposes.

267. Id. at 125 (§ 2.2 of proposed fair use guidelines).
268. Id. (§ 2.3 of proposed fair use guidelines).
269. Id. (§ 2.3.1 of proposed fair use guidelines).
270. 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125 (1996) (§ 2.3.2 of proposed fair use guidelines).
271. Id. (§ 2.3.3 of proposed fair use guidelines).
Where the rightsholder of an image is unknown, a digitized image may be used for up to 3 years from first use, provided that a reasonable inquiry is conducted by the institution seeking permission to digitize, retain, and reuse the digitized image. If, after 3 years, the educational institution is unable to identify sufficient information to seek permission, any further use of the image is outside the scope of these guidelines and subject to the four-factor fair use analysis.

Images digitized from a known source and not readily available in usable digital form for purchase or license at a fair price may be used for one academic term and may be retained in digital form while permission is being sought. Permission is required for uses beyond the initial use; if permission is not received, any use is outside the scope of the guidelines and subject to the four-factor fair use analysis.272

iv. Educational uses273

The guidelines give further insight into allowed educational uses as follows:

An educator may display digital images for educational purposes, including face-to-face teaching of curriculum-based courses, and research and scholarly activities at a non-profit educational institution.274 An educator may compile digital images for display on the institution’s secure electronic network to students enrolled in a course given by that educator for classroom use, after-class review, or directed study, during the semester or term in which the educator’s related course is given.275

“Educators, scholars, and students may use or display digital images in connection with lectures or presentations in their fields and conferences where educators meet to discuss issues relevant to their disciplines or present works they created for educational purposes in the course of research, study, or teaching.”276 Educators, scholars, and students may digitize lawfully acquired images

272. Id. (§ 2.4.1, 2.4.2 of proposed fair use guidelines).
273. These guidelines do not cover reproducing and publishing images in publications, including scholarly publications in print or digital form, for which permission is generally required. Before publishing any images under fair use, even for scholarly and critical purposes, scholars and scholarly publishers should conduct the four-factor fair use analysis.
274. 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125 (1996) (§ 3.1.1 of proposed fair use guidelines).
275. Id. (§ 3.1.2 of proposed fair use guidelines).
276. Id. (§ 3.2 of proposed fair use guidelines).
to support the permitted educational uses under these guidelines if the inspiration and decision to use the work and the moment of its use for maximum teaching effectiveness are so close in time that it would be unreasonable to expect a timely reply to a request for permission.\textsuperscript{277} When digitizing copyrighted images, as permitted under these guidelines, an educational institution should simultaneously conduct the process of seeking permission to retain and use the images.\textsuperscript{278}

Educators, scholars, and students should credit the sources and display the copyright notice(s)\textsuperscript{279} with any copyright ownership information shown in the original source, for all images digitized by educators, scholars, and students, including those digitized under fair use.\textsuperscript{280} When digitizing and using individual images from a single source such as a published compilation, or individual frames from motion pictures or other audiovisual works, institutions and individuals should be aware that fair use limits the number and substantiality of the images that may be used from a single source.\textsuperscript{281}

With regard to students they may use digital images in an academic course assignment such as a term paper or thesis, or in fulfillment of degree requirements; publicly display their academic work incorporating digital images in courses for which they are registered during formal critiques at a nonprofit educational institution; or retain their academic work.

\textsuperscript{277} Id. at 125 (§ 4 of proposed fair use guidelines).
\textsuperscript{278} Id. Where the rightsholder is unknown, the institution should pursue the person and is encouraged to keep records of its reasonable inquiry. A reasonable inquiry by an institution for the purpose of clearing rights to digitize and use digital images includes, but is not limited to, conducting each of the following steps: (1) checking any information within the control of the educational institution, including slide catalogs and logs, regarding the source of the image; (2) asking relevant faculty, departmental staff, and librarians, including visual resource collections administrators, for any information regarding the source of the image; (3) consulting standard reference publications and databases for information regarding the source of the image; and (4) consulting rights reproduction collectives and/or major professional associations representing image creators in the appropriate medium.
\textsuperscript{279} Copyright or © or Copr., the year and the copyright holder.
\textsuperscript{280} 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125 (1996) (§ 5.3 of proposed fair use guidelines). Crediting the source means adequately identifying the source of the work, giving a full bibliographic description where available or citing the electronic address if the work is from a network source. \textit{Id.}
\textsuperscript{281} 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 125 (1996) (§ 3.1.1 § 5.5 of proposed fair use guidelines). In addition, a separate copyright in a compilation may exist. \textit{Id.}
in their personal portfolios for later uses such as graduate school and employment applications. 282

Finally,

[although the use of entire works is usually not permitted under fair use, it is generally appropriate to use images in their entirety in order to respect the integrity of the original visual image, as long as the limitations on use under these guidelines are in place. For purposes of electronic display, however, portions of an image may be used to highlight certain details of the work for educational purposes as long as the full image is displayed or linked to the portion. 283

v. Pre-existing analog visual images

The guidelines further address the uses and restrictions pertaining to pre-existing analog visual images.

Pre-existing visual resource collections in educational institutions ("pre-existing analog image collections") often consist of tens of thousands of images which have been acquired from a wide variety of sources over a period of many years. Many pre-existing collections lack adequate source information for older images and standards for accession practices are still evolving. In addition, publishers and vendors may no longer be in business, and information about specific images may no longer be available. For many images there may also be several layers of rightsholders: the rights in an original visual image are separate from rights in a reproduction of that image and may be held by different rightsholders. 284

The guidelines suggest permitting educational institutions to digitize lawfully acquired images as a collection and to begin using such images for educational purposes. At the same time, educational institutions should begin to identify the rightsholders and seek permission to retain and use the digitized images for future educational purposes. Continued use depends on the institutions' making a reasonable inquiry to clear the rights in the digitized image. 285

Educational institutions may digitize images from pre-existing analog image collections during a reasonable transition period of 7

282. Id. (§ 3.4 of proposed fair use guidelines).
283. Id. (§ 5.6 of proposed fair use guidelines).
284. Id. at 125 (§ 6 of proposed fair use guidelines).
285. Id. (§ 6.1 of proposed fair use guidelines).
years\textsuperscript{286} from December 31, 1996.\textsuperscript{287} If after a reasonable inquiry, an educational institution is unable to identify sufficient information to seek appropriate permission during the transition period, continued retention and use is outside the scope of these guidelines and subject to the four-factor fair use analysis.\textsuperscript{288}

2. Distance Learning

The guidelines also explain the application of fair use principles by educational institutions, educators, scholars, and students who wish to use copyrighted works for distance education.\textsuperscript{289} The guidelines address to the performance and display of copyrighted works in some of the distance learning environments that have developed since the enactment of 17 U.S.C. § 110 and that may not meet the specific conditions of § 110(2).\textsuperscript{290} The guidelines permit instructors who meet the conditions of these guidelines to perform and display copyrighted works as if they were engaged in face-to-face instruction.

Generally, distance learning is an educational process that occurs when instruction is delivered to students physically remote from the location or campus of program origin, the main campus, or the primary resources that support instruction. In this process, the requirements for a course or program may be completed through remote communications with instructional and support staff including either one-way or two-way written, electronic or other media forms.\textsuperscript{291} Distance education involves teaching through the use of telecommunications technologies to transmit and receive various materials through voice, video and data.\textsuperscript{292}

\textit{a. Application and eligibility}

The guidelines apply to nonprofit educational institutions at all levels of instruction whose primary focus is supporting

\textsuperscript{286} The approximate useful life of a slide.
\textsuperscript{287} 53 PAT. TRADEMARK \& COPYRIGHT J. (BNA) at 125 (1996) (§ 6.2.1 of proposed fair use guidelines).
\textsuperscript{288} Id. at 125 (§ 6.2.3 of proposed fair use guidelines).
\textsuperscript{289} Id.
\textsuperscript{290} Id.
\textsuperscript{291} Examples of such analog and digital technologies include telecourses, audio and video teleconferences, closed broadcast and cable television systems, microwave and ITFS, compressed and full-motion video, fiber optic networks, audiographic systems, interactive videodisk, and satellite-based and computer networks.
\textsuperscript{292} 53 PAT. TRADEMARK \& COPYRIGHT J. (BNA) at 130 (1996).
research and instructional nonprofit activities of educators and students.\textsuperscript{293}

To qualify under the guidelines as a noninfringing use, the transmission must take place over a secure system with access limited to the class or program through the use of such technology as PIN, passwords, smartcards,\textsuperscript{294} or other means of limiting the programs to eligible students.\textsuperscript{295} Reception must be in a classroom, another similar place normally devoted to instruction, or any other site where the reception can be controlled by the eligible institution. In all such locations, the institution must utilize technological means to prevent copying of the portion of the class session that contains the performance of the copyrighted work.\textsuperscript{296}

Performance of an entire copyrighted work, or a large portion thereof, may be transmitted only once during a distance learning course. For subsequent performances, displays, or access, permission must be obtained.\textsuperscript{297} The institution receiving the transmission may record or copy classes that include the performance of an entire copyrighted work, or a large portion thereof, and retain the recording or copy for up to 15 consecutive class days for viewing by students enrolled in the course.\textsuperscript{298} Access to the recording or copy for such viewing must be in a controlled environment such as a classroom, library, or media center, and the institution must prevent copying by students of the portion of the class session that contains the performance of the copyrighted work. The transmitting institution may, under the same terms, reproduce and provide access to copies of the transmission containing the performance of a copyrighted work.\textsuperscript{299}

\textsuperscript{293} \textit{Id.} at 131. Only students officially enrolled for the course at an eligible institution may view the transmission that contains works covered by these guidelines. The guidelines also apply to government agencies that offer instruction to their employees and to government agency employees who take the course or program offered by the agency as a part of their official duties.

\textsuperscript{294} A device having the same function as a key to a door in that only the person who possesses the smartcard can gain entrance or access to the program.

\textsuperscript{295} \textit{53 PAT. TRADEMARK \& COPYRIGHT J. (BNA)} at 131 (1996).

\textsuperscript{296} \textit{Id.}

\textsuperscript{297} \textit{Id.}

\textsuperscript{298} \textit{Id.} at 131.

\textsuperscript{299} In addition, the transmitting institution can exercise reproduction rights provided in 17 U.S.C. § 112(b).
b. When permission is required

There are five instances when the guidelines recognize infringement exists but allow the infringement. These five instances include: (1) when the copyrighted multimedia work was obtained pursuant to a license agreement and the terms of the license apply;\textsuperscript{300} (2) when there is any commercial use including the situation where a nonprofit educational institution is conducting courses for a for-profit corporation for a fee such as supervisory training courses or safety training for the corporation’s employees; (3) when an institution offering instruction via distance learning under these guidelines further disseminates the recordings; (4) when an institution offering instruction via distance learning allows uncontrolled access to the class; and (5) when an institution retains the recorded or copied class session that contains the performance of a copyrighted work not covered in 17 U.S.C. § 110(2).\textsuperscript{301}

3. Educational Multimedia

The guidelines also address issues pertaining to fair use teaching methods. Multimedia creators have integrated traditional, individual and instructional resources with their own original works in a meaningful way, providing compact educational tools that allow great flexibility in teaching and learning.\textsuperscript{302} Material is stored so that it may be retrieved in a nonlinear fashion, depending on the needs or interests of learners. Educators can use multimedia projects to respond spontaneously to students’ questions by quickly referring to relevant portions. In addition, students can use multimedia projects to pursue independent study according to their needs or at a pace appropriate to their capabilities.

Educational multimedia projects are addressed under the guidelines which incorporate students’ or educators’ original material,\textsuperscript{303} together with various copyrighted media formats.\textsuperscript{304} Educational multimedia projects may be used only for educational

\textsuperscript{300} 53 Pat. Trademark & Copyright J. (BNA) at 131.
\textsuperscript{301} Id.
\textsuperscript{302} Educators have traditionally brought copyrighted books, videos, slides, sound recordings and other media into the classroom, along with accompanying projection and playback equipment.
\textsuperscript{303} Such as course notes or commentary.
\textsuperscript{304} 53 Pat. Trademark & Copyright J. (BNA) at 131 (including but not limited to, motion media, music, text material, graphics, illustrations,
purposes in systematic learning activities. These systematic learning activities include non-commercial curriculum-based learning and teaching involving educators to students enrolled in courses at nonprofit educational institutions or as otherwise permitted under these guidelines. 305

Educators may incorporate portions of lawfully acquired copyrighted works when producing their own educational multimedia projects for teaching tools in support of curriculum-based instructional activities at educational institutions. 306 In addition, educators may perform and display their own educational multimedia projects created for curriculum-based instruction to students in the following situations: 307 face-to-face instruction; 308 material assigned to students for directed self-study; 309 and remote instruction to students enrolled in curriculum-based courses and located at remote sites, provided over the educational institution's secure electronic network in real-time, or for after class review or directed self-study, provided there are technological limitations on access to the network and educational multimedia project and provided further that the technology prevents the making of copies of copyrighted material. 310

Educators may perform or display their own educational multimedia projects in presentations to their peers, for example, at workshops and conferences. 311 "Educators may retain educational photographs and digital software which are combined into an integrated presentation)."

305. Id. at 132.
306. Id. at 133.
307. If the educational institution's network or technology used to access the educational multimedia project created under Section 2 of these guidelines cannot prevent duplication of copyrighted material, students or educators may use the multimedia educational projects over an otherwise secure network for a period of only 15 days after its initial real-time remote use in the course of instruction or 15 days after its assignment for directed self-study. After that period, one of the two use copies of the educational multimedia project may be placed on reserve in a learning resource center, library or similar facility for on-site use by students enrolled in the course. Students shall be advised that they are not permitted to make their own copies of the educational multimedia project.

Id.

308. 53 PAT. TRADEMARK & COPYRIGHT J. (BNA) at 133 (1996).
309. Id.
310. Id.
311. Id. at 133.
multimedia projects in their personal portfolios for later personal
uses such as tenure review or job interviews,"\textsuperscript{312} as well.

Students may incorporate portions of lawfully acquired copy-
righted works when producing their own educational multimedia
projects for a specific course.\textsuperscript{313} Furthermore, students may per-
form and display their own educational multimedia projects for
educational uses in the course for which they were created and
may use them in their own portfolios as examples of their aca-
ademic work for later personal uses such as job and graduate school
interviews.\textsuperscript{314}

\textit{a. Time, portion, copying and distribution limitations}

Additionally, uses of educational multimedia projects created
under these guidelines are subject to certain time, portion, copy-
ing and distribution limitations as follows:

\textbf{Time Limitations}: Educators may use their educational mul-
timedia projects created for educational purposes for teaching
courses, for a period of up to two (2) years after the first instruc-
tional use with a class. Use beyond that time period, even for edu-
cational purposes, requires permission for each copyrighted
portion incorporated in the production.

\textbf{Portion Limitations}: Portion limitations mean the amount of
a copyrighted work that can reasonably be used in educational
multimedia projects under these guidelines regardless of the origi-
nal medium from which the copyrighted works are taken.

\textbf{Motion Media}: Up to 10\% or 3 minutes, whichever is less, in
the aggregate of a copyrighted motion media work may be repro-
duced or otherwise incorporated as part of an educational mul-
timedia project.

\textbf{Text Material}: Up to 10\% or 1000 words, whichever is less, in
the aggregate of a copyrighted work consisting of text material
may be reproduced or otherwise incorporated as part of an educa-
tional multimedia project. An entire poem of less than 250 words
may be used, but no more than three poems by one poet, or five
poems by different poets from any anthology. For poems of
greater length, 250 words may be used but no more than three
excerpts by one poet, or five excerpts by different poets from a sin-
gle anthology.

\textsuperscript{312. Id.}
\textsuperscript{313. Id.}
\textsuperscript{314. Id. at 133.}
Music, Lyrics, and Music Video: Up to 10%, but in no event more than 30 seconds, of the music and lyrics from an individual musical work (or in the aggregate of extracts from an individual work), whether the musical work is embodied in copies, or audio or audiovisual works, may be reproduced or otherwise incorporated as part of a multimedia project. Any alterations to a musical work shall not change the basic melody or the fundamental character of the work.

Illustrations and Photographs: The reproduction or incorporation of photographs and illustrations is more difficult to define with regard to fair use because fair use usually precludes the use of an entire work. In any event, under the guidelines a photograph or illustration may be used in its entirety but no more than five (5) images by an artist or photographer may be reproduced or otherwise incorporated as part of an educational multimedia project. When using photographs and illustrations from a published collective work, not more than 10% or 15 images, whichever is less, may be reproduced or otherwise incorporated as part of an educational multimedia project.

Numerical Data Sets: Up to 10% or 2500 fields or cell entries, whichever is less, from a copyrighted database or data table may be reproduced or otherwise incorporated as part of an educational multimedia project.\footnote{Id. at 133. ("A field entry is defined as a specific item of information, such as a name or Social Security number, in a record of a database file. A cell entry is defined as the intersection where a row and a column meet on a spreadsheet.")}

b. Further considerations

Only a limited number of copies, including the original, may be made of an educator's educational multimedia project. For all of the uses permitted, there may be no more than two copies only one of which may be placed on reserve. The additional copy may be made for preservation purposes but may only be used or copied to replace a copy that has been lost, stolen, or damaged. In the case of a jointly created educational multimedia project, each principal creator may retain one copy but only for the purposes described for educators and for students.

Educators and students are advised to exercise caution in using digital material downloaded from the Internet in producing their own educational multimedia projects, because there is a mix of works protected by copyright and works in the public domain on the network. Educators and students are advised to credit the
sources and display the copyright notice and copyright ownership information if this is shown in the original source, for all works incorporated as part of educational multimedia projects prepared by educators and students, including those prepared under fair use. The credit must adequately identify the source of the work and give a full bibliographic description where available. The copyright ownership information includes the copyright notice (Copyright or © or Copr., year of first publication and name of the copyright holder). Educators and students are advised that they must include on the opening screen of their multimedia project and any accompanying print material a notice that certain materials are included under the fair use exemption of the U.S. Copyright Law, have been prepared according to the educational multimedia fair use guidelines, and are restricted from further use.

Access to works on the Internet does not automatically mean that the works can be reproduced and reused without permission or royalty payment and, furthermore, some copyrighted works may have been posted to the Internet without authorization of the copyright holder.

Educators and students may make alterations in the portions of the copyrighted works they incorporate as part of an educational multimedia project only if the alterations support specific instructional objectives. In addition, educators and students are advised to note that alterations have been made.


While there are limitations on the exclusive rights of copyright granted in 17 U.S.C. § 106, section 108 grants qualifying libraries and archives the right to copy and distribute copyrighted works under four circumstances. This section allows for libraries to copy works under certain circumstances and fall under the statutory exemption to infringement under the copyright law. The conditions required for the library to fall under this exemption are when the copying is done in preservation and security of unpublished works; replacement of damaged published works; reproduction of a portion of a published work for patrons; and reproduction of an entire published work for a patron.

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317. § 108.
318. § 108.
Section 108 provides for specific requirements for entities to fall under this exception. For example, to be a qualifying library or archive, the copy must be made without any purpose of direct or indirect commercial advantage; the library or archive must be open to the public; and the copy must include a notice of copyright. 319

When section 108 applies, there are general rules which must be followed. The rules state that only one copy can be made, the copy cannot be made for commercial gain; and copying is not being done pursuant to a plan, system or routine. 320 Furthermore, it is impermissible to regularly copy journal articles and circulate them among library employees and faculty and it is impermissible to engage in copying which, over time, amounts to recurring requests from patrons for the same works.

Assuming that the library or archive qualifies under this section, the library or archive has the right to reproduce and distribute one facsimile copy of a copyrighted work subject to the following requirements: the library or archive can copy an entire unpublished work for the purpose of preservation and security, for deposit for research in another qualifying library or archive; 321 the copy can be a facsimile copy, photocopy, or microfilm, but not an OCR; 322 and the library or archive cannot make more than one copy.

If the work is damaged, the library or archive can copy the work provided that no more than one copy is made; the work is not converted into machine-readable form; 323 the work is presently damaged, deteriorating, lost, or stolen; the library or archive anticipates that future damage, deterioration, loss or theft is not acceptable; and a reasonable effort was made to locate an unused replacement at a fair price. 324

A library or archive can copy an entire published work under this provision and transfer it to another qualifying 17 U.S.C. §108 library if the other library has a presently damaged, deteriorating, lost, or stolen copy, has no duplicate for copying, and has made a

319. § 108.
320. § 108.
321. § 108.
322. Optical Character Recognition (OCR) is technology which allows the printer material to be scanned into machine readable code for use with a word processor or other word processing device of computer.
323. No OCR or scanned copies.
324. § 108.
reasonable effort to locate an unused replacement at a fair price.\textsuperscript{325}

A library or archive can copy a portion of a published work for a patron if only one copy is made; only one article of a collection or periodical issue is copied,\textsuperscript{326} and the copy becomes the property of the patron.\textsuperscript{327} The library or archive, however, may not retain a copy, nor can it have had notice of any purpose other than private use by the requesting patron.\textsuperscript{328} Additionally, the library or archive must display a copyright warning both at the place where the patron requests the copy and on the request form.\textsuperscript{329} The following is a sample copyright warning:

**WARNING CONCERNING COPYRIGHT RESTRICTIONS**

THE COPYRIGHT LAW OF THE UNITED STATES (TITLE 17, UNITED STATES CODE) GOVERNS THE MAKING OF PHOTOCOPIES OR OTHER REPRODUCTION OF COPYRIGHTED MATERIAL.

UNDER CERTAIN CONDITIONS SPECIFIED IN THE LAW, LIBRARIES AND ARCHIVES ARE AUTHORIZED TO FURNISH A PHOTOCOPY OR OTHER REPRODUCTION. ONE OF THESE SPECIFIED CONDITIONS IS THAT THE PHOTOCOPY OR REPRODUCTION IS NOT TO BE USED FOR ANY PURPOSES OTHER THAN PRIVATE STUDY, SCHOLARSHIP, OR RESEARCH. IF A USER MAKES A REQUEST FOR, OR LATER USES, A PHOTOCOPY OR REPRODUCTION FOR PURPOSES IN EXCESS OF FAIR USE, THAT USER MAY BE LIABLE FOR COPYRIGHT INFRINGEMENT.

THIS INSTITUTION RESERVES THE RIGHT TO REFUSE TO ACCEPT A COPYING ORDER IF, IN ITS JUDGMENT, FULLFILLMENT OF THE ORDER WOULD INVOLVE VIOLATION OF COPYRIGHT LAW

A library or archive can copy an entire published work for patrons if only one copy is made; an unused or used copy of the copyrighted work cannot be obtained at a fair price; the copy becomes the property of the patron; the library is not to retain a copy; the library has no notice of any purpose other than private study by the patron; and a copyright warning is displayed at the

\textsuperscript{325} § 108.
\textsuperscript{326} But "fair use" may be available, for example, when a patron wants two articles from the same issue.
\textsuperscript{327} § 108.
\textsuperscript{328} § 108.
\textsuperscript{329} § 108.
place where the patron places the request and on the face of the request form itself.\[^{330}\] Section 108 does not permit libraries to convert copyrighted works into digital format without permission. However, if the original copy in the library was already in digital form, it would appear that § 108 would be applicable.

**X. 17 U.S.C. §109: Effect of Transfer of Particular Copy or Sound Recording**

The owner of a particular copy or sound recording lawfully made is entitled, without the authority of the copyright owner, to sell or otherwise dispose of possession of that copy or sound recording.\[^{331}\] Additionally, a library may lend a rightfully obtained copyrighted work without violating the copyright owner's distribution rights. However, a cause of action may arise under a contract if the contract limits the transfer of the copies.

Section 109 affects only the distribution rights of the copyright holder and not the rights to reproduce, adapt, or perform the work. Also, sound recordings and computer programs are partially excluded from the first sale doctrine when they are loaned, rented, or leased for purposes directly or indirectly related to commercial transactions.

Certain activities of nonprofit institutions are addressed in §109. For example, non-profit educational institutions may transfer computer programs to other non-profit educational institutions, faculty, staff, and students without constituting a rental, lease, or loan for commercial purposes. Lending a computer program by a non-profit library is permitted without obtaining the owner's permission as long as each copy has a warning affixed. If a public school maintains a computer program at its library for use by the students in relation to some class, the school may lend the program to the students without obtaining permission from the copyright owner. However, if the school lends the program for a fee, then uses the money to fund a new wing on the library, or for any other reason other than administrative costs of lending, the school must obtain permission from the copyright owner.

\[^{330}\] § 108.
\[^{331}\] § 109.

Another set of limitations to the exclusive copyrights pertains to public performances and displays.332 Among the various provisions of section 110 are exceptions where certain behavior is not infringement.333 For example, an educational institution may transmit a lecture over the Internet complete with copyrighted pictures to illustrate the lecture if the transmission is for students attending classes remotely, and who are receiving lectures transmitted across the Internet. When the permission of the copyright holder of the photographs is not obtained, the institution must secure the transmission through a PIN, password, or some other security measure. Otherwise, permission from the copyright owner is necessary.

An educational institution may also transmit an entire recording of a Broadway Play to remote students. If the institution had a fair number of students absent and wished to retransmit the play several days later, this section allows the transmission. Performance of an entire copyrighted work or a large portion thereof may be transmitted only once for a distance learning course. For subsequent performances, displays or access, permission must be obtained. An educational institution may also send a videotape of a popular news show to a remote location so students may view the show.

The institution receiving the transmission may record or copy classes that include the performance of an entire copyrighted

332. Discrete exceptions have been carved out: (1) Classroom exemption - instructional activities in the classroom and similar places devoted to instruction are exempted from the copyright owner's performance right subject to some limitations and conditions. § 110(1); (2) Instructional broadcasting exemption - performance via transmission of broadcasting station or other transmitting entity. § 110(2); (3) Religious services exemption. § 110(3); (4) Non-profit performance exemption - limited to public performances given directly in the presence of an audience whether by means of live performers, the playing of phonorecords, or the operation of a receiving apparatus. § 110(4); (5) Transmissions received by public reception exemption. § 110(5); (6) Agricultural/horticultural fair exemption. § 110(6); (7) Record Store exemption. § 110(7); (8) Transmissions to blind/deaf persons exemption. § 110(8) & § 110(9); and (9) Fraternal organizations exemption. § 110(10).

333. While only the courts can determine what is and is not fair use, these guidelines represent the Conference on Fair Use committee members agreement to the conditions which the fair use doctrine should generally apply with respect to non-profit educational institutions.

http://scholarship.law.campbell.edu/clr/vol20/iss2/1
work, or a large portion thereof, and retain the recording or copy for up to 15 consecutive class days for viewing by students enrolled in the course.

In all cases, access to the recording or copy for such viewing must be in a controlled environment such as a classroom, library, or media center, and the institution must prevent copying by students of the portion of the class session that contains the performance of the copyrighted work.

Educational multimedia projects may incorporate students' or educators' original material into various copyrighted media formats and combine them into an integrated presentation. Students may perform and display their own educational multimedia projects for educational uses in the course for which they were created and may use them in their own portfolios as examples of their academic work for later personal uses such as job and graduate school interviews. The multimedia work, however, cannot be used by the local television station without obtaining permission from all copyright holders as this use would constitute a commercial use and would not be exempted under the guidelines.


The rights of an owner of a copyright in a computer program are limited such that the owner of a particular copy of a computer program may make a copy or adaptation of the program as an "essential step" in using the computer program in a computer or for archival purposes.\textsuperscript{334} This limitation applies only with respect to "owners" of copies of programs, not licensees, borrowers, or mere possessors.\textsuperscript{335}


it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

(1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or

(2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.

\textsuperscript{335} § 117.
Publication and Notice

Publication\textsuperscript{336} is defined as "the distribution of copies . . . of a work to the public by sale or other transfer of ownership, or by rental, lease, or lending."\textsuperscript{337} Thus, unless otherwise published, a work only displayed or performed on the Internet would not comprise a publication. However, uploading a copy on a bulletin board may constitute a publication if it is being made available for others to download. In addition, this would appear to satisfy the distribution requirement.

Copyright notice is optional for works created after March 1, 1989.\textsuperscript{338} However, whenever a copyrighted work is published in the United States or elsewhere by authority of the copyright owner, a notice of copyright may be placed on publicly distributed copies.\textsuperscript{339} These notice rules apply to digital works on the Internet as well as to works embodied in traditional media. The Copyright Office has issued guidelines for properly attaching a copyright notice to digital works.

\textsuperscript{336} Although publication is no longer a requirement for copyright protection, as it was under the Copyright Act of 1909, the implications of whether a work is classified as published or unpublished remains important. Works that are published in the U.S. are subject to mandatory deposit in the Library of Congress. 17 U.S.C. § 407(a) (1970). Unpublished works are eligible for protection without regard to the nationality or domicile of the author. § 104(a) (1994). Published works must have a copyright notice if published before March 1, 1989. §§ 401, 405 (1970). However, for works published on or after March 1, 1989, copyright notice is optional. Whether a work is published is also important in a fair use analysis.

\textsuperscript{337} 17 U.S.C. § 101 (1994) (definition of "publication"). This definition indicates that performances or displays where a copy or phonorecord does not change hands, such as performances or displays on television, does not constitute a publication, no matter how many people are exposed to the work. On the other hand, the definition makes clear that when copies or phonorecords are offered to a group of people, publication takes place if the purpose of making the copyrighted work available is to further distribute, publicly perform, or display.

\textsuperscript{338} Under the Copyright Act of 1909, if a work was published (distributed or displayed publicly) without an acceptable notice of copyright, copyright protection was lost and could not be regained.

\textsuperscript{339} There are three requirements of proper notice: (1) The symbol "©"; the word "Copyright"; or the abbreviation "Copr."; (2) the year of the first authorized publication of the work; and (3) "the name of the owner of the copyright (note that this may not be the author of the copyrighted work), an abbreviation by which the name can be recognized, or a generally known alternative designation of the owner." 17 U.S.C. § 401(b) (1994). Works published before March 1, 1989 must bear a copyright notice identifying the year of publication and the name of the copyright owner or risk loss of copyright protection. § 401.
For works reproduced in machine-readable copies (such as magnetic tapes or disks, punched cards, or the like) from which the work cannot ordinarily be visually perceived except with the aid of a machine or device, each of the following constitutes examples of acceptable methods of affixation and position of notice: (1) A notice embodied in the copies in machine-readable form in such a manner that on visually perceptible printouts it appears either with or near the title, or at the end of the work; and (2) A notice that is displayed at the user's terminal at sign on.\textsuperscript{340}

The following example illustrates the copyright notice rules. A non-profit library obtains several multimedia productions which it wishes to place in circulation, and the productions were originally created in the summer of 1995 by a local movie maker. Upon receiving the productions, the library notices that nowhere on the disks or within the production is there a copyright notice, i.e. no Copyright, ©, or Copr. The library places the productions in circulation. These items are copyrighted! Since March 1, 1989, the copyright notice has been optional. It is good practice, however, to include the notice. For digital media where a machine is required to "read" the material, the notice should be placed in the production either with or near the title or at the end.

Another example is if a law student sends a copy of his finished law review article to legal listservs for comments on its quality. The student wishes to receive some feedback before the article is submitted to the law review. For purposes of the Copyright Act, a publication has probably taken place. As discussed, listservs can distribute documents to millions of people who in turn can redistribute the article. The question becomes whether the purpose of the listservs is to distribute articles or merely provide a method to transmit documents from location to location.

XIV. Copyright Ownership and Duration

Initial copyright ownership vests in the author or authors of an original work the moment the work is fixed in a tangible medium of expression.\textsuperscript{341} A "joint work" is defined as "a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole."\textsuperscript{342} Authors of a joint work are "tenants-in-com-

\textsuperscript{340} 37 C.F.R. § 201.20(g) (1997).
\textsuperscript{342} § 101 (definition of "joint work").
mon," each owning an equal share of the copyright in the work, unless a written agreement provides otherwise. A joint owner may freely use the work or commercially exploit it without the consent of the other co-owners, but he must account to the co-owners for any profits resulting from the exploitation.

If a work is "for hire," the employer or other person for whom the work was prepared is considered the author and the owner of the copyright, unless there is a written agreement to the contrary. However, an independent contractor owns the copyright in a work created for the hiring party. The principles of the common law of agency are used to determine whether the work was prepared by an employee or by an independent contractor.

Copyright ownership is different from ownership of the tangible medium in which the work is embodied and transfer of the tangible medium does not convey any rights in the copyright

343. § 201(a).
344. Weissman v. Freeman, 868 F.2d 1313, 1318 (2nd Cir. 1989). This is true regarding non-exclusive licenses. Exclusive licenses, on the other hand, cannot be granted by less than all of the owners. However, the Ninth Circuit has held that if joint owners can agree among themselves that no action may be taken without unanimous consent, the agreement will bind third parties who have notice of its contents. Meredith v. Smith, 145 F.2d 620 (9th Cir. 1944).

345. A work is "for hire" if the work "is prepared by an employee within the scope of his or her employment" or if the work is:

- specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work,
- as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas,
- [And If] the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.

17 U.S.C. § 101 (definition of "work for hire") (emphasis added).

346. The factors, no one of which is determinative, used to determine if one is an employee under the common law of agency involve the "hiring party's right to control the manner and means by which the product is accomplished" and:

- the skill required;
- the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the hired party; the extent of the hired party's discretion over when and how long to work; the method of payment; the hired party's role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party.


embodied therein. For example, a person purchasing a book from a bookstore does not acquire from the purchase any of the copyright owner's exclusive rights. Similarly, the transfer of works across the Internet will not convey any exclusive rights of the copyright owner.

As the Internet grows and more and more users begin using the information on the internet, copyright protection will become increasingly important. The purpose of copyright is to allow an author to share works while receiving royalties for the time, effort and creativity embodied in the work. If the Internet were to take the meaning out of copyright works, then authors would lose some of the incentive to publish. Currently, many publishers include in their contract that the author will not publish without permission of the publisher. Thus, the author would breach the contract were the information placed upon the Internet. The publishers would not place information on the Internet because this would remove the incentive for readers to purchase copies.

JURISDICTION AND THE INTERNET

The Internet poses special jurisdictional problems. For example, if an Internet user located in North Carolina violates the laws of Virginia through her Internet activities will that person be subject to personal jurisdiction in Virginia?

Traditionally, jurisdictional issues have been determined according to the "minimum contacts" and "traditional notions of fair play and substantial justice" standards. Some recent cases indicate that courts will most likely apply existing law to the new issues arising from Internet use. Thus, when determining whether a particular forum has personal jurisdiction over an out-of-state defendant, courts are likely to apply the traditional "minimum contacts" standard.

What amount or nature of electronic contacts with a given forum is sufficient to give that forum specific personal jurisdiction over an Internet user? There is no clear answer to this question, but by placing a given fact pattern on a sliding scale we can begin to shape an answer. By looking at a few cases that have dealt with this issue we can define three broad categories which make up our sliding scale and help us answer the jurisdiction question: passive web sites, interactive web sites, and cyber-businesses.

I. Passive Web Sites

Passive web sites are exemplary of the category which represents the end of the spectrum where jurisdiction is unlikely. A passive web site is one which simply provides some type of information that the site operator thought people might find interesting or useful in some way. Although such a web site may be an advertisement or contain advertisements, there is nothing to buy and nothing for sell through the web site itself. Typically, the site operator is not seeking to conduct business, enter contracts, sell products, or do any other commercial activity over the Internet through his passive web site.

II. Interactive Web Sites

A second category includes those web sites that offer some type of interaction and represents the quagmire that is in the middle of the spectrum. This type of web site goes beyond advertising and allows visitors to take advantage of some service right on the Internet whether it is signing up for a mailing list or actually placing an order for a product. It is unclear how much interactivity will be required to confer personal jurisdiction, or if only cer-

350. One pertinent case is called the "Blue Note" case. Bensusan Restaurant Corp. v. King, 937 F. Supp. 295 (S.D.N.Y. 1996). Here, the defendant, Mr. King, the owner of a Missouri jazz club called "The Blue Note" set up a passive web site for the purpose of disseminating information about the club, including information on obtaining tickets and upcoming events. Id. at 297. No services, other than the giving of information, were available via the web site. The defendant, Mr. King, was sued by the owner of a New York jazz club, also called "The Blue Note," who held a registered trademark on the name. The court held that "[c]reating a site, like placing a product into the stream of commerce, may be felt nationwide—or even worldwide—but, without more, it is not an act purposefully directed toward the forum state." Id. at 301. Perhaps most important in "Blue Note" was the fact that a consumer necessarily had to travel to Missouri in order for a trademark infringement to occur. Id. at 299. No reservations or ticket orders were taken through the web site. An 800 number was advertised on the web site allowing consumers to order tickets by phone, but the tickets had to be picked up at the ticket office in Columbia, Missouri. But even a passive web site has been held to subject the operator to personal jurisdiction in a foreign state. See Inset Systems, Inc. v. Instruction Set, Inc., 937 F. Supp. 161, 165 (D. Conn. 1996) (where the court held that it had jurisdiction where an advertisement is "available continuously to any Internet user.").

351. The word interactive implies that the web site is more than merely passive.
ertain types of interactivity will be sufficient to confer personal jurisdiction.

The United States Federal Court for the Eastern District of Missouri addressed the situation in *Maritz, Inc. v. Cybergold*.\(^{352}\) In this case, the defendant set up an interactive web site to promote its up-coming Internet services that encouraged visitors to electronically sign up on a mailing list and the defendant indiscriminately responded to every user who accessed the site by automatically sending the person Cybergold promotional material.\(^{353}\) The *Cybergold* court found that the operation of an interactive web site was sufficient to confer personal jurisdiction over an out-of-state resident.\(^{354}\) The *Cybergold* holding indicates that the automatic distribution of promotional material to each and every person to hit a web site is sufficient to give a forum personal jurisdiction. In future cases it is probable that a court’s decision will rest heavily on the level of web site’s interactivity.

### III. Conducting Cyber-Business

A third category includes sites where the Internet user is clearly operating a cyber-business. Such a person or entity conducts ongoing commercial operations via the Internet that undoubtedly include advertising, entering into contracts, taking orders and payments, and delivering products and other information. Such a person is purposefully seeking out commercial contacts in foreign states, entering into business relationships with its citizens, and “purposefully availing himself of the foreign states laws.”

*CompuServe v. Patterson*\(^{355}\) falls into this category. A Texas attorney, Richard Patterson, entered into an agreement with CompuServe over the Internet to distribute a software program he had written through CompuServe’s server in Ohio.\(^{356}\) The court held that contacts which were predominantly electronic were sufficient to give a state personal jurisdiction over someone conducting business operations on-line.\(^{357}\)

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353. *Id.* at 1333.
354. *Id.* at 1334.
355. 89 F.3d 1257 (6th Cir. 1996).
356. *Id.* at 1260.
357. *Id.* at 1264-65. The court held that Patterson was subject to personal jurisdiction in CompuServe’s home state of Ohio stating that Patterson had “purposefully transacted business in Ohio,” and that he “deliberately set in
The examples set out above represent a pattern that appears to be forming in Internet-jurisdiction cases. As one moves across the spectrum from passive web sites to cyber-businesses the likelihood that a court will find it has personal jurisdiction over an out-of-state defendant based on his electronic contacts with the forum state becomes more probable. The type of site placed on the web could be determinative of whether personal jurisdiction could be found in a foreign forum.

A FINAL THOUGHT

As information becomes more readily available, the copyright laws must grow with this technology. The Internet is an entirely new medium of publishing and the laws surrounding the Internet have not caught up. Authors now not only face the daunting task of policing copyright infringement, but also in proving that an infringement actually occurred. Given the transitory nature of electronic medium, authors, fortunately, can rely upon statutory damages for their relief. Although the current copyright laws seem adequate to enforce copyright infringement, the real task will be catching the infringer.