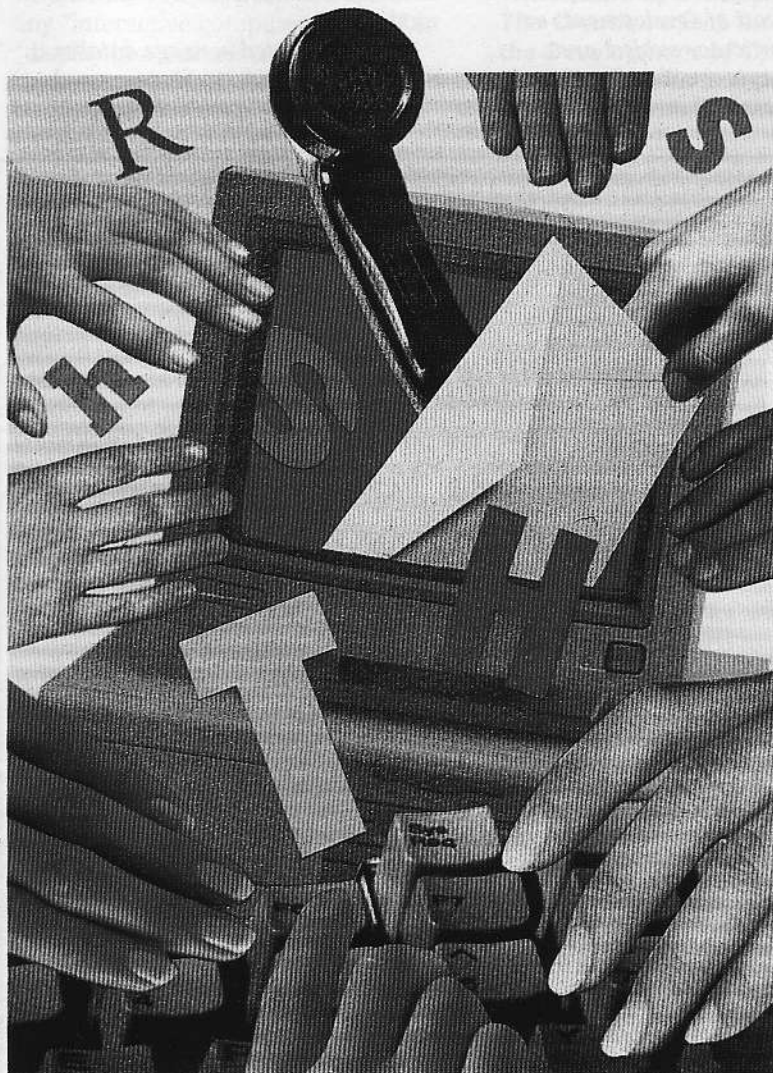


In the 1987 science fiction novel *Count Zero*, William Gibson fantasized a future inhabited by people who plug their brains directly into a giant computer network and plunge their consciousnesses into a nether world where they fly among various virtual entities. Gibson called this nether world "cyberspace."



Practicing Cyberlaw in the Year 2000

BY RICHARD BECKER
AND MARK GERSTEIN

Cyberspace exists *now* on the Internet. The Internet's arcane structure and freewheeling customs originally impeded general access; however, a recent development known as the World Wide Web has eliminated any hurdles. The Web is to the Internet what Windows is to DOS: a graphical, user-friendly "front-end." Thus, the Web makes maneuvering on the Internet as easy as using a point-and-click software program.

The Web is inherently useful to lawyers for two reasons. First, it is oriented toward preparing, presenting and retrieving information. Second, it permits inexpensive promotion of lawyers' services. This article provides a brief history of the Internet and the World Wide Web, describes the utility of this network to lawyers, and explains the mechanics of establishing an on-line presence with its concomitant goals and dangers.

Internet History

The Internet (the Net) was created two decades ago by the Advanced Research Projects Administration of the Department of Defense (ARPA) as a bomb-proof communication system designed to keep military establishments connected in the event of nuclear attack. The Net soon expanded into the civilian world, connecting universities, government laboratories and large technological companies, such as IBM and DEC.

The term Internet refers to a computer "network of networks" (i.e., an Inter-net) that now spans the globe. It is comprised of multiple, linked computers that speak the same language (called TCP/IP) and have a coordinated system of addresses.

As a communications medium, the Net has numerous advantages over regular mail (snail-mail) and the telephone. First and foremost, the Net was, and still is, very inexpensive to access. Data can be sent instantaneously to many locations at no cost, thus allowing anyone to conduct a mass mailing. Enormous amounts of text, video and audio can be transmitted across the world within seconds or minutes, at the cost of a local telephone call. Data can also be posted on the Net, thereby permitting large numbers of people to "hit" a particular area and retrieve specific data.

The expense of computer hardware initially limited Net access to members of the government (".gov" addresses), academic institutions (".edu" addresses), and large companies (".com" addresses), who used their institutions' costly and powerful mainframe computers to exchange data. Today, with the advent of inexpensive and powerful personal computers, individuals and small busi-

nesses can tap into the Net on a cost-efficient basis.

The World Wide Web

The Web was developed in 1990. Created in Europe to allow particle physicists to exchange data, it was popularized in America by a software program called "Mosaic," the first "Web browser" that took advantage of the Web's graphical nature to create an easy point-and-click interface for "surfing" the Net.

Technically, the Web is a specification for creating documents with embedded links. By clicking on highlighted text associated with a link, a person can jump from one document directly to another. These links are intrinsically multimedia and allow the linking of text to sounds, images and video. Today, the world of Web browsers is big business because there exists an enormous profit potential for a company able to cash in on a "Net operating system" that becomes widely accepted. The goal of these companies is to become the *de facto* standard for accessing the Net, the same way that Microsoft set the standard by which PCs operate. Recent initial public offerings of Spry Research and Netscape Communications portend the potential growth and profit in this area.

Typically, an entity or individual creates a customized "home page" on the Web that sets forth promotional and other information. Home pages should also, if properly constructed, contain links to other related home pages, as well as to other documents that provide more-detailed information. While one need not have a home page to explore the Net or even to receive e-mail, a home page is needed to present a graphical or pictorial face to the public.

Because the Web is easy to use and a Net connection is inexpensive, the number of non-technical persons going on-line to post and retrieve information from an ever-expanding network of host computers has exploded. In essence, a critical mass of users has been reached. A person can retrieve useful information through the Web in almost any area of interest. Recognizing the potential to reach an enormous audience, large businesses such as IBM,

Eastman Kodak and Federal Express use graphical home pages accessible from the Web to advertise their products and services, to post employment opportunities, and even to offer technical product support.

Small businesses have followed the larger companies and are now establishing their own presence on the Net. For a small business, a Web home page provides a large forum presence at little cost — a virtual storefront. Furthermore, a potential customer can access the business page of a small company as easily as a business page offered by a Fortune 500 company. Some small companies are creating innovative pages that have attracted large numbers of hits. For instance, there are now used car advertisements (<http://www.webfoot.com/lots/us/CA/CA.car.lot.html>) and on-line antique auctions (<http://www.onsale.com>) on the Web.

The Utility of the Net for Lawyers

Given the presence of both large and small businesses on the Web, one of the most important ways lawyers can and will maintain and develop client relations is through a Net presence. At a minimum, clients will expect their attorney to be able to send and receive e-mail. The ways a lawyer can utilize the Net are:

E-mail

Many law firms already have established on-line e-mail gateways to communicate with clients. E-mail is in its infancy and involves only the transference of typed messages. However, sophisticated users can attach images of scanned documents to messages. The future promises video-conferencing with real-time transmission of images and sound. Thus, e-mail will be as great an innovation compared to the telephone as the telephone was to regular mail.

Document Retrieval

An attorney who sets up a home page can post a vast database and allow designated clients to access specific parts of that database with passwords the attorney provides. By various encryption methods, non-designated users who do not have a

password are blocked from access to the database. The impact of encryption on commercial litigation will be enormous. In the future, lawyers will exchange discovery by accessing their adversary's home pages and entering the password-protected area containing the litigation-specific documents. These documents may then be downloaded to the host computer of the attorney requesting discovery.

Filing With Court

Many jurisdictions permit electronic filing of pleadings and motion papers. New Jersey is presently testing an electronic filing system in the Monmouth County Special Civil Part. Statewide, New Jersey has an electronic program that allows subscribers, for a dollar per minute, to access the judiciary's automated docketing system. This system lists the complete filing history for every case and is the same system used by court personnel. For information on this system, contact the Superior Court Administration office at (609) 292-4987.

The state judiciary, through a panel headed by Judge Eugene D. Serpentelli, has had an active home page since July of this year. The page consists of an initial cover sheet portraying a hierarchical view of the court system. Each county is listed. By clicking on a county's link, the user is brought to that particular county's home page. The counties are still developing their pages, so the linkage is not yet complete.

The initial goal of the state's home page is to educate the public through an on-line brochure of the court system. The long-term plan, however, is to provide for attorney/court e-mail, as well as a complete on-line filing system. The Serpentelli committee's tasks are to evaluate the impact of a state judiciary home page upon the courts and to recommend the appropriate modifications to accommodate this new technology.

Research

Information available on the Net and through various "dial-direct" providers has grown, and is now easier and faster to access than ever before. The evolution of Lexis®-Nexis® and Westlaw is a good example of the way in which electronic

research has become easier, faster and cheaper. Both services initially provided on-line case law to lawyers at great profit. To expand these profit centers, Westlaw and Lexis® brought information on-line that did not strictly concern the law, such as an array of newspapers and periodicals. These services, however, are neither the best nor the most economical on-line sources of non-legal information. Today, an attorney who needs detailed information on non-legal topics must venture beyond Westlaw and Lexis®.

For example, a corporate lawyer can instantly access financial information through EDGAR; a few years ago compiling the same information would have taken hundreds of hours. EDGAR comprises all documents filed electronically with the SEC. The plethora of information available includes annual reports, 10Ks and 10Qs, as well as other detailed financial information. The SEC database is current because many companies now file their statements electronically. A lawyer who has independent and instant access to this financial information offers a greatly enhanced level of service to his or her clients. At present, access to EDGAR is free.

Non-legal databases also provide information that is invaluable to the solo-practitioner. For example, an attorney considering bringing an action against a prospective defendant who is uninsured must know whether the defendant has assets that could satisfy a judgment. An asset search can be conducted with as little information as the individual's name. In addition, another useful type of search for defense counsel is the plaintiff's litigation history — information which can often make the difference between winning and losing a case.

Many other types of searches can also be conducted. For example, an individual can be located anywhere in the country simply by entering into the proper database his or her Social Security number or name and last-known address. An individual may also be identified by telephone or license plate number. The amount of information available on-line is so extensive that specialists now retrieve specific information on a per request basis. Hiring such a specialist is often less expensive than con-

ducting a Westlaw or Lexis® search. George Orwell never imagined anything like this.

How to Connect to the Net/Web

The first step in using the Web is to select a Net provider that is a gateway to the Web. The names of a few popular access providers include IDT (New York), Netcom (National), Panix (New York), PSI (National), and The Well (San Francisco).

Subscribers are connected to access providers by a local telephone line or a leased-line. The former is cheaper and easier, while the latter gives a much faster network connection. With telephone line service, users dial in and establish a "transient" Net connection over the telephone line at speeds of up to 28.8 kbps (thousand bits per second), using either the PPP or SLIP protocol. Users have a Net "address" that permits them to send and receive e-mail, to log onto other computers, to retrieve files, to read news groups, and, most importantly, to surf the Net in style with browsers such as Netscape or Mosaic.

The major limitation of a telephone line connection is its lack of speed, which is currently limited to 28.8 kbps. However, this speed will increase with the advent of Integrated Systems Digital Network (ISDN) connections. ISDN, which uses a special digital protocol over ordinary telephone lines, provides high-quality connections at speeds of up to 56 kbps, which is twice modem speed. Alternatively, a user may have a leased-line connecting it to the provider and the Net. A leased-line connection transfers data at speeds of up to 1.54 mps (T1), which is 55 times modem speed. A leased-line connection is continuous, thus the firm is always on-line. Finally, cable modems are on the horizon and promise speeds well in excess of ISDN lines (approaching T1 speeds) at the cost of a local cable subscription. Cable connections are not continuous.

After establishing a connection through a provider, the user's next step is to build a home page. If the firm has a telephone line connection, the home page must be on the access provider's computer, because

the user's connection is not continuous. Many providers offer users option of having their home page on its system. Alternatively, if the user has a leased-line, it can keep its home page on its own computers.

One of the most important attributes of any home page is its address; *i.e.* its location in cyberspace. For a law firm, a good address typically identifies the firm by its name. A proprietary address (*e.g.* firm name) should be registered with the government through InterNIC to protect the owner's use of its name on the Net. Horror stories abound of entities and individuals who have been forced to buy the use of their proprietary name from someone who previously registered it for the sole purpose of selling it to the rightful owner.

Writing a Web Home Page

From the onset, keep in mind the purpose of the Web page and the audience it targets. For a lawyer, the page is an on-line promotional brochure that serves as an inexpen-

sive way to reach a market of affluent and electronically fluent individuals. To be most effective, the Web page should be graphical. For example, it should show the firm's logo. The page should also provide a textual description of the firm's various practice areas, with icons corresponding to each. If the user presses on an icon of a gavel, he or she may be directed to the firm's litigation department. The browsing individual can thereby access any practice area simply by clicking on an icon. Clients should also be able to leave queries to be answered by the firm. In addition, the page should offer links to other Web sites that give information of interest to the projected audience.

More advanced functions can be set up on home pages to make the page interactive. For example, the client could be asked to supply a key word to search briefs prepared by the firm. The page could also provide a fill-in form for adding comments to a particular brief. A client could also download documents or data files. Software has been created to help

design Web documents. For example, Microsoft has a plug-in module for Word for Windows Version 6. There is also HoTMetaL for PCs, HTML editor for Macs and HMTL mode for Unix Emacs.

The more complex the Web page, the more difficult it is to create. All text is written in an instruction language called HTML (Hypertext Markup Language). The program sets forth the text that will appear on the home page and the text that will be "linked" to related documents. Links are the "hyper" in hypertext. More sophisticated pages contain images and video, which require familiarity with difficult formats such as GIF and JPEG.

Because the amount of information on the Net is so extensive, it is very easy for a home page, no matter how creative, to get lost in the flood of data. Therefore, after a firm constructs its home page, it should register the page in an Internet directory, the most prominent of which is YAHOO! (<http://www.yahoo.com>).

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able" to a minor "any comment, request, suggestion, proposal, image or other communication that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs, regardless of whether the user of such service placed the call or initiated the communication" (the "patently offensive clause").²⁴

The Third Circuit held that the patently offensive clause was unconstitutional under the First Amendment because it makes no reference to community standards. Because a reader of the CDA is "unable to identify the relevant community standard," the clause was unconstitutionally vague. On the issue of protecting minors, the CDA was also overly broad because it would prohibit communications amongst adults as well as minors. It is impossible to verify the age of a user on the Internet.

Within a week of the Third Circuit's decision, the Justice Department filed a direct appeal to the Supreme Court.

Rutgers University School of Law Associate Dean Ronald K. Chen, the attorney who represented Carlos Diaz in his much-publicized challenge to Megan's Law, stated that the medium of communication should not be the subject of legislation.²⁵ Chen further stated that "there is no difference between a newspaper vendor box on a street corner or a computer, and the question is can government legislate against child pornography or child solicitation."²⁶ Chen believes the government *can* legislate against both.

Should New Jersey follow these other states and the federal government and criminalize specific acts committed while utilizing a computer? No doubt that the children of our communities need the state's protection. While the necessity for laws governing computers is debatable, we must not forget that the Internet poses a danger that has never existed before: access to children right in their own bedrooms.

Some children are told not to speak to strangers. Today, children can go on-line and communicate with millions of strangers. Technology makes it possible for a child to be

exploited or to receive pornography in his or her own home. Can we adapt and enforce appropriate laws to protect children? The question remains to be answered. *53*

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Endnotes

1. Marty Rimm, Marketing Pornography on the Information Superhighway, 83 Geo. L.J. 1849 (1995).
2. See *Sable Communications, Inc. v. FCC*, 492 U.S. 115 (1989).
3. *Id.* at 126.
4. *People v. Poplaski*, 616 N.Y.S.2d 434 (N.Y. Dist. Ct. 1994).
5. *Id.* at 437.
6. See N.Y. Penal Law § 235.15(3).
7. See New York State Senator Dean G. Skelos, A Parent's Guide to On-Line Computer Safety (1995).
8. See Conn. Gen. Stat. § 53a-183 (1995).
9. See N.J.S.A. 2C:24-4 (1992).
10. *Id.*
11. *Id.*
12. *Id.*
13. See N.J.S.A. 2C:24-4 (1994); *Osborne v. Ohio*, 495 U.S. 103 (1990).
14. See 47 U.S.C. § 532(h) (1992) and Title V of the Telecommunications Act of 1996, Pub. L. No. 104-104, § 502, 110 Stat. 56, 133-35 (1996) (to be codified at 47 U.S.C. § 223 (1996)).
15. See *Denver Area Educ. Telecommunications Consortium, Inc. v. F.C.C.*, Nos. 95-124, 95-227, 1996 WL 354027 (June 28, 1996).
16. *Id.*
17. *Id.*
18. Paul M. Barret, Cable Ruling May Portend Internet Curbs, Wall St. J., July 1, 1996, at B1, B5.
19. *Id.*
20. *Id.*
21. *Id.*
22. See *ACLU v. Reno*, No. 96-963, 1996 WL 311865 (E.D. Pa. June 11, 1996).
23. 47 U.S.C. § 223(a)(1)(B)(1996).
24. 47 U.S.C. § 223(d)(1)(1996).
25. Interview with Rutgers University School of Law Associate Dean Ronald K. Chen, in Newark, N.J. (May 6, 1996).
26. *Id.*

Practicing Cyberlaw

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Security on the Net

With the explosion of on-line commerce, the issue of security has become paramount, especially to lawyers engaged in privileged communications. Indeed, in the future, a breach of on-line security will damage a lawyer's reputation in the same way that losing a sensitive document would have in the past. If clients cannot trust an attorney to manage on-line communications, that lawyer will suffer irreparable harm to his or her reputation.

The Net is intrinsically open and intrinsically insecure because of its development as a communications tool shared by universities. Unix, the operating system that underlies the Net, was developed by Bell Labs and attracted academicians because it could easily connect machines over a network. Sharing and access were the only priorities until the hackers invaded.

The first widely publicized "hacker attack" on the Net was perpetrated by Robert Morris, a Cornell graduate student who created a "signature" virus (similar to "Kilroy was here"), which he planted on over 5,000 main-frame computers and other servers at various military, university and business facilities. Morris intended no harm; however, his virus became malignant due to a programming error. As a result, the Net was shut down for two days, and thousands of servers were disabled. On May 16, 1990, Morris was convicted of violating the Computer Fraud and Abuse Act.¹ His case is the subject of a circuit court opinion.²

After Morris, the next hacker to gain notoriety was Kevin D. Mitnick. Unlike Morris, Mitnick was a malicious hacker who broke into nearly 30 sites and stole hundreds of telephone calling card numbers, credit card numbers and a variety of other sensitive information. Mitnick was so bold that he even broke into the computer of the government's computer emergency response team (CERT) to steal security protocols used to thwart hackers. This final break-in led to Mitnick's demise; the

director of CERT, Tsutomu Shimomura, proclaimed his "mission in life" was to capture Mitnick. Shimomura was actively involved in the computer-assisted manhunt that led to Mitnick's apprehension approximately four months later. At the arraignment, Mitnick and Shimomura stared icily across the courtroom at each other as the judge read the indictment. As Mitnick was being led away in handcuffs, he paused as he passed Shimomura and whispered, "I respect your skills."

While computer break-in artists are becoming more sophisticated, many companies are newcomers to the Net and lack sophistication regarding security. Unlike companies in the technological field, such as Sun Microsystems, which actually welcome hacker activity as an opportunity to improve security systems, the worst thing for a novice is to have his or her Web site hacked apart. Security concerns, combined with the maintenance that a reasonably sophisticated Web site requires, mandate that lawyers with a Web

presence seek the services of a specialist experienced in connecting legal professionals. The specialist should also have experience building networks for law firms.

Conclusion

Commerce has taken over the Net's World Wide Web, formerly the domain of academicians and government officials. The legal community is following businesses on-line because the Web, with its interactive capabilities, supports the posting and retrieval of documents. Lawyers must also adopt Web technology to communicate with clients. In addition, the Net is an invaluable research tool, offering nearly endless information at the click of a button and at a fraction of the cost of Westlaw and Lexis®.

To best take advantage of the Net, a lawyer should establish a home page to present a graphical "face" to the public in the form of an on-line brochure. In the not too distant future, the New Jersey court system

will have electronic filings. If the state court system has the capability to accept electronic filing before lawyers can send it, they will find themselves beyond the times. ☞

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Endnotes

1. 18 U.S.C. § 1030 (1988).
2. See *United States v. Morris*, 928 F.2d 504 (2d Cir. 1991) (discussing lack of scienter requirement in 18 U.S.C. § 1030 (1988), cert. denied, 502 U.S. 817 (1991)).

Shrink-Wrap

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The Seventh Circuit's holding that favors enforceability is not without flaws. For example, in strongly criticizing the district court's conclusion that the terms of the contract must precede or at least accompany the sale transaction, the Seventh Circuit wholeheartedly adopted the software industry's position that it is impractical to demand that the software seller make license agreements available before the exchange of cash and the sale transaction. The adoption of the software producers' position caused the circuit court to make some erroneous holdings.

To bolster its reasoning by highlighting the impracticalities of the district court's position, the Seventh Circuit undermined its own analysis. First, the circuit court noted that "[v]endors can put the entire terms of a contract on the outside of a box by using microscopic type, removing other information that buyers might find more useful ... or both."¹⁹ The circuit court then held that "[t]ransactions in which the

exchange of money precedes the communication of detailed terms are common."²⁰ But the circuit court slipped when it attempted to compare the sale of software to the sale of a radio, stating that:

Consumer goods work the same way. Someone who wants to buy a radio set visits a store, pays, and walks out with a box. Inside the box is a leaflet containing some terms, the most important of which is usually the warranty, read for the first time in the comfort of home. By [the defendant's analysis], the warranty in the box is irrelevant ... yet so far as we are aware no state disregards warranties furnished with consumer products.²¹

This analysis is not legally accurate, at least with respect to the warranties for consumer goods. The Magnuson-Moss Warranty Federal Trade Commission Improvement Act and the regulations promulgated thereunder, 16 CFR Section 702 (1996) — "Pre-Sale Availability of Written Warranty Terms," make clear that "the terms of any written warranty on a consumer product [must] be made available to the con-

sumer (or prospective consumer) prior to the sale of the product to him" or her.²² In fact, the regulations require specific methods by which the written warranties are to be made available not only for in-store sales, but also for catalog, mail order and door-to-door sales. Interestingly, those requirements meet the district court's concern that, at the very least, the terms of the license agreement must be made available to the purchaser before the sale. Therefore, contrary to what the software industry and the Seventh Circuit would like to believe, making warranties available before a consumer sale is not novel. In fact, it is the rule.

Additionally, the Seventh Circuit's decision in *ProCD* is somewhat at odds with the Third Circuit's opinion in *Step-Saver Data Systems, Inc. v. Wyse Technology*.²³ Although the Seventh Circuit distinguishes *Step-Saver* as simply a battle-of-the-forms case, the Third Circuit would no doubt disagree. In *Step-Saver*, the purchaser argued that a contract was formed when the defendant "agreed, on the telephone, to ship the copy at the agreed price" and