

HOW A SOLE PRACTITIONER USES THE
“ELECTRONIC OFFICE”
TO MAINTAIN A COMPETITIVE LAW PRACTICE

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“With the advent of the Internet there is no longer any excuse for not knowing everything.”¹

I. INTRODUCTION

The practice of law has entered an era of change comparable to the era that led to the extinction of the dinosaurs. Dinosaurs were unable to adapt to change, and thus became extinct. Attorneys need not resign themselves to extinction, but must adapt to change in order to maintain their practices. New and improved technology is one component of the recent explosion of change.

New technology has virtually exploded in recent years. Although in the past law firms may have been slower than their business counterparts to adopt technology,² small and large firms alike appear to be catching technology fever. This trend is especially prevalent among small law firms.³ The American Bar Association’s 1997 Small Firm Technology Survey found that almost eighty percent of small firms (firms with twenty or fewer lawyers) reported investing in hardware products during the past year.⁴ Nearly half of the small firm respondents are now using Pentium based systems, almost double the percentage reported in 1996.⁵ More than seventy-five percent of small firms reported investing in new or upgraded software this year.⁶

The blind adoption of any and all new technology, without reflection or specific benefits, provides another path to extinction. Attorneys must choose wisely among technology options or they will spend themselves out of practice with unnecessary and unneeded equipment and software.

Small town and small firm lawyers historically have had a structural advantage over large city and large firm attorneys. Small firm attorneys knew the courts, juries and provided more efficient and economical legal services. These advantages continue in the present. Small firm attorneys, until recently, also labored against the disadvantages of longer distances from governmental resources and lack of affordable research facilities. These disadvantages now no longer hold true.

This Article will highlight the areas in which technology can make the small law firm (especially the solo practitioner) more competitive with large law firms and will assert that technology “levels the playing field” for the solo practitioner and

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1. Robert G. Foster, *Roping Goats on the Internet*, 76 MICH. B.J. 420, 421 (1997).
 2. See Steven Keeva, *Law Firms Plug In*, A.B.A. J., July 1997, at 100.
 3. See *id.*
 4. See *id.*
 5. See *id.*
 6. See *id.*

small firm. “[E]very lawyer, even a solo practitioner in a small town in New Mexico, [can] have the same law library as a lawyer in the largest firm in America.”⁷

II. RESEARCH

A. *Traditional “Paper” and Book Research*

Psychologically we like to “hold and see” the law we are researching. The paper products give us some comfort that we have not missed anything. Because we have been using these products for so long, we are relatively efficient in their use. However, books take up a tremendous amount of space, as does paper. In theory, electronic data storage saves paper and conserves natural resources.⁸ An extensive book collection can be very expensive. Perhaps most importantly, transferring and manipulating information from one document to another document is difficult or impossible. Cutting and pasting paper documents is not a good method. You must ultimately transfer the same information to electronic media to manipulate it.

B. *Lexis and Westlaw*

Most attorneys know Lexis and Westlaw fairly well. A researcher may access huge amounts of information using Lexis or Westlaw. These products provide very “user friendly” search mechanisms, and are well organized sources of legal information.⁹ Additionally, these services provide full text searching capability.¹⁰ Familiarity, reliability and currentness give the searcher many of the same comforts as do paper products.

The citators and Shepard’s services provided in Lexis and Westlaw provide unique search tools not available elsewhere.¹¹ Simple menus and directories guide the searcher through the process.¹² However, Lexis and Westlaw searches often prove to be very expensive. For the solo or small firm practitioner, clients may balk when these costs are passed on to them. Printing and downloading may cost extra.

To alleviate cost concerns for solo and small firm practitioners, Lexis and Westlaw (WestPro Contract) now offer programs that allow a solo practitioner to unlimited access to their particular state’s database for approximately \$100 per

7. Roberta Cooper Ramo, *The Changing Practice of Law in an Electronic Environment*, N.Y. ST. B.J., May/June 1996, at 12.

8. I say “in theory” because most people still like to keep paper copies of documents. This relates to our psychological comfort in and familiarity with the paper products.

9. See Jean McKnight, *Wexis Versus the Net*, 85 ILL. B.J. 188, 189 (1997).

10. See *id.*

11. See *id.*

12. See *id.*

month.¹³ For Westlaw and Lexis, the practitioner can also access all federal materials in his or her circuit for an additional \$25 or so per month.¹⁴ For small firms with more than one attorney the cost is slightly higher (for Westlaw, \$70 per month per additional attorney and for Lexis, \$75 per month per additional attorney).¹⁵

These special programs somewhat minimize the expense disadvantage, although Lexis or Westlaw still are more expensive than the Internet. However, the available library (database) in the special program is less extensive than that available through regular Lexis or Westlaw services, particularly as to law review articles and out-of-jurisdiction cases. All other advantages remain. The practitioner maintains the ability to access other Westlaw or Lexis databases for the regular rate (presently about \$4.95 per minute). Shepherds service is not available at the flat fee and is charged at the per minute rate.

For Virginia, and presumably other states, the Lexis and Westlaw unlimited research databases are almost identical. Two main differences exist between the two programs as follows: (1) Westlaw charges an extra per-line charge for printing or downloading; and, (2) LEXSEE service is available from any screen, minimizing somewhat the need to search the extra charge databases.¹⁶ This service allows access to *any* material under the flat fee (no additional charge) if the citation is known.

These special programs can be indispensable for a small firm practitioner whose research needs are limited to one state. If the practitioner does work in more than one state, or does a large amount of work involving federal law,¹⁷ this service loses some appeal, but still may prove advantageous.

C. CD-ROM

“CD-ROM is an acronym for compact disk-read only memory.”¹⁸ CD-ROMs serve as a medium of storage “for computer-readable data and programs.”¹⁹ A plethora of CD-ROM products are on the market, which range from the

13. As of May 1997 this service was available in 18 states for Lexis. Lexis expected to cover all 50 states with this service by the end of 1997. See *Illinois Course Focuses on Computer Data*, 4 LAW TECH. PRODUCT NEWS, 41, 41 (1997).

14. For Lexis, a practitioner can access United States Reports, Supreme Court Reporter, United States Code Annotated, and his or her own Circuit for \$30 per month.

15. Pricing information verified by Ronja Butler, Westlaw Academic Representative, on Mar. 15, 1998 and Rita Freese, Lexis Educational Specialist, on Mar. 16, 1998.

16. Westlaw maintains the advantage of key number search capability, an additional difference.

17. Both services include the United States Code in their unlimited Federal Circuit database, but not the Code of Federal Regulations.

18. Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 40.

19. *Id.*

specialized to the general. CD-ROMs exist that are similar to the specialized state Lexis or Westlaw products designed for solos and small firms described in Part II(B). These CD-ROMs contain all cases, statutes and administrative materials for a particular state. The practitioner pays a monthly cost for the CD-ROM which is updated either monthly or quarterly. CD-ROMs also exist for any specialty (for example, environmental law or the Americans with Disabilities Act). You may also buy a broad based CD-ROM, like the United States Code Annotated.

CD-ROMs offer the advantage of less storage space than paper copy (but more than Lexis or Westlaw).²⁰ The searcher may access very specialized materials. The “library” (disc) may be transported in a small case and accessed by the searcher with any computer with a CD-ROM drive. Excellent menus guide the researcher and CD-ROMs are very user-friendly.

However, CD-ROM libraries lack the daily updating provided by Lexis or Westlaw. Generally, the publisher replaces your disc once per month or once per quarter as part of the service. The information contained on the disc also is less extensive than the libraries contained on Lexis or Westlaw.

D. *The Internet*

“Internet” is the term used to describe the system made up of all the computers on the world’s largest network that uses a common protocol to communicate.²¹ The Internet contains numerous search engines that can provide a starting point to search the Internet for various topics. In addition, many courts have web sites, as well as law libraries and other sources that provide cases, statutes, and other information.

The Internet contains a virtually (pun intended) infinite amount of information. A researcher utilizing the Internet has the ability to find unique or specialized topics. Research on the Internet costs almost nothing.

However, the infinite amount of information contained on the Internet is often counterproductive. The search for information can be slowed by the vast number of often irrelevant sources. The researcher may feel overwhelmed. The lack of full-text search capability hinders the efficiency of the search. The information retrieved may not be current and reliable. The search engines provide no citators or Shepard’s service, nor simple menus or directories. The “library” is also constantly changing.

The American Association of Law Libraries has attempted to address the concerns of those desiring more freely accessible primary legal source materials on

20. *See id.*

21. *See* JERRY LAWSON, VIRGINIA CONTINUING LEGAL EDUC., LAWYERS ON THE INTERNET, 1-235 (2d ed. 1996).

the Internet.²² The Association has promulgated a public domain legal citation system.²³ This system would facilitate more efficient legal research over the Internet.²⁴ “The South Dakota Supreme Court has already adopted the public domain citation system both in print and electronic form and other states are considering [adoption of] such a system.”²⁵

Due to different systems of citation, the American Bar Association and the American Association of Law Libraries have promulgated a new simplified and standardized system of citation.²⁶ “The simplified . . . system would not be tied to legal reporters and arguably not require legal training to decipher.”²⁷ “For example, the first case decided by the Florida Supreme Court would be cited as follows: Roe v. Doe, 1998 Fla 1.”²⁸

For a small monthly fee, *Versus Law*²⁹ already provides full text opinions from all federal courts in all fifty states to anyone with a web browser and access to the Internet.³⁰ Westlaw, Lexis, and Lawyers Coop are also integrating their materials into the World-Wide-Web.³¹ In the future, inexpensive on-line legal research will further aid the small firm practitioner.³²

Two new search tools designed specifically for legal research will also aid legal research on the Web. *FindLaw*³³ is a directory, like *Yahoo!*³⁴, but is limited to web sites that are law related.³⁵ *LawCrawler*³⁶ is a search engine, like *Lycos*,³⁷ except that it searches only law-related sites.³⁸

22. See Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 40.

23. See *id.*

24. See *id.*

25. *Id.*

26. See *id.*

27. *Id.*

28. *Id.*

29. Versus Law Inc. is located in Richmond, VA, and can be accessed at <<http://www.versuslaw.com>>.

30. See Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 40.

31. See *id.*

32. See *id.*

33. *FindLaw* is accessible at <<http://www.findlaw.com>>.

34. *Yahoo!* is accessible at <<http://www.yahoo.com>>.

35. See Aaron Grossman, “*FindLaw*,” “*LawCrawler*” *Locate Information Fast*, VA. LAW. WKLY., Aug. 25, 1997, at B-4 (*LawCrawler* is powered by *Altavista*, in turn accessible at <<http://www.altavista.digital.com>>).

36. *LawCrawler* is accessible at <<http://www.lawcrawler.com>>; see <<http://www.findlaw.com>>. These sites are sponsored by the West Group.

37. *Lycos* is accessible at <<http://www.lycos.com>>; see <<http://www.webcrawler.com>>.

38. See *LawCrawler*, <<http://www.lawcrawler.com>>.

III. COMMUNICATION

A. Electronic Mail

Recent years have also brought many technological changes in communications. Ten years ago, telephone, Federal Express, and "snail mail"³⁹ were the standards. Then, facsimile machines made it possible to send documents over the phone lines. However, the documents are in hard copy only and long distance phone charges may apply. Today, documents can be sent via modem or electronic mail (e-mail) and communication can travel by the same routes. "E-mail is destined to become a universal communication tool in the legal industry."⁴⁰ "The only question is *when*, with some feeling of surprise that the process has not moved faster."⁴¹

E-mail is often more efficient than other forms of communication. E-mail messages can be drafted on screen and sent with the push of a button. You can attach documents to an e-mail message and send the document anywhere in the world. The message arrives quickly. No long distance charges should apply.⁴² Monthly access fees are *very inexpensive* (about \$10 to \$15 per month).⁴³

If a document is attached, once it arrives at its destination, the addressee now has the document on his or her word processing system. The document can be manipulated, both internally and in conjunction with other documents at the destination. The destination user can now electronically convey the transformed document to the source for final use or further manipulation.

E-mail systems may be internal or external.⁴⁴ An internal e-mail system is contained within the enterprise and not used to communicate with people in another enterprise.⁴⁵ "Typically, a local area network (LAN) is utilized to provide an internal e-mail system."⁴⁶ A wide area network (WAN) may network together two or more LANs.⁴⁷ A "remote dial up facility" enables an attorney to dial into the LAN from a remote location, like a lap top computer or personal computer at home or elsewhere,

39. "Snail Mail" refers to typical ground base mail, typically through the United States Postal Service.

40. Charles R. Merrill, *E-mail for Attorneys from A to Z*, N.Y. St. B.J., May-June 1996, at 20, 20.

41. *Id.*

42. If an Internet provider does not provide access via a toll-free or local number, look elsewhere to find one that does.

43. Most providers allow access based on a certain number of hours for the monthly fee. However, these hours should be more than sufficient, unless you neglect your practice and "surf the net" all day.

44. See Charles R. Merrill, *E-Mail for Attorneys from A to Z*, N.Y. St. B.J., May-June 1996, at 20-21.

45. See *id.* at 20.

46. *Id.*

47. See *id.*

to communicate via e-mail with coworkers.⁴⁸ This technology facilitates telecommunication, part-time employment, or continued contact with the office during family or medical leave.⁴⁹ An internal system also increases efficiency by allowing coworkers to work together more effectively.

An external e-mail system sends and receives electronic mail to and from persons outside of your group or firm, like clients and attorneys in other law firms.⁵⁰ In contrast to internal e-mail, external e-mail is *revenue driven*.⁵¹ “[T]he client wants its law firms to have external e-mail capability for the *client’s* benefit. And those firms with the external e-mail capability will tend to be favorably distinguished from those who do not have it, when comparing otherwise equivalent firms competing for legal business.”⁵²

Corporate legal departments have increasingly turned to electronic mail to make their operations more efficient.⁵³ Some corporate legal departments have required outside corporate counsel to use external e-mail for communications with the house counsel.⁵⁴ The corporate counsel feel that electronic mail enhances prompt response to relatively simple questions. In addition the ability to exchange draft documents in electronic form saves time and money.⁵⁵

Security concerns do exist for e-mail. A system administrator may read the message. A hacker may use special “sniffer”⁵⁶ or “spoofer”⁵⁷ software to gain

48. *See id.* at 21.

49. *See id.*

50. *See id.*

51. *See id.*

52. *Id.*

53. *See id.*

54. *See id.*

55. *See id.* at 22.

56. Robert L. Jones, *Client Confidentiality: A Lawyer’s Duties with Regard to Internet E-Mail* (visited Apr. 7, 1998) <<http://www.gsu.edu/~lawppw/lawand.papers/bjones.html>>.

So what are sniffers? Computer communications channels are party lines. The information intended for any computer on the network may pass through virtually any number of other computers while in transit. This sharing of the communications line means that computers can receive information that was actually intended for other machines on the network. Capturing this information as it is going over the network is called sniffing.

Id.

57. Robert L. Jones, *Client Confidentiality: A Lawyer’s Duties with Regard to Internet E-Mail* (visited Apr. 7, 1998) <<http://www.gsu.edu/~lawppw/lawand.papers/bjones.html>>.

Not only can people try to pretend to be someone they are not, so can computers. This is called spoofing. Remember the data packet header that the sniffer uses? The spoofer uses the recipient address in the header and configures his machine to emulate the recipient’s machine. When data comes along the network that is intended for the actual recipient, the spoofer receives it instead and automatically sends a packet to the sender which makes the sender believe that the message was properly received. In fact, the spoofer can read the e-mail, and concoct a reply

access. However, encryption software exists to minimize these types of problems.⁵⁸ Soon such software will become unnecessary and security and encryption will be incorporated into the Internet.⁵⁹

B. *Internet Relay Chat*

“Internet Relay Chat (IRC) allows the user of the Internet to engage in real time conversations with one or more persons anywhere in the world.”⁶⁰ IRCs allow for multiple users, multiple channels, and communications between anyone with IRC access; a person may “talk with anyone on the Internet over more than one channel.”⁶¹ Private channels are possible and each channel is devoted to a specific topic of conversation.⁶²

[W]ith the use of white-board software,⁶³ documents can simultaneously be viewed, discussed, and edited on screen in real time. . . . [N]o long distance charges apply, unless they are required to access the net. . . . Using Internet relay chat and software entitled [sic] Internet Phone, or similar software, real time phone calls are also possible over the Internet . . . without, at present time, additional long distance telephone charges.⁶⁴

C. *Video Teleconferencing*

Video teleconferencing is also possible over the Internet. “Video Teleconferencing is the transmission of video, sound, and other data over telephone lines from remote geographical locations by the use of video cameras, software and computers.”⁶⁵ This technology is being used for video depositions of a person in

and send it back to the unsuspecting person who is unaware that he is communicating with an imposter. More subtly, the spoofer can alter the original e-mail and then relay it on to the intended recipient.

Id.

58. See Charles R. Merrill, *E-Mail for Attorneys from A to Z*, N.Y. St. B.J., May-June 1996, at 20-23.

59. See *id.*

60. Richard Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 38.

61. *Id.*

62. See *id.* at 39.

63. Whiteboard software allows a document to be viewed and edited on-screen, simultaneously, in real time, by many users in different locations. The document appears on each screen much as it would if that viewer were in a word processing program.

64. Richard Georges, *The Impact of Technology On the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 39.

65. *Id.*

another physical location.⁶⁶ “[S]ome courts now allow oral arguments from video teleconferencing locations.”⁶⁷ The newest version of Internet Phone permits use of an inexpensive video camera for video conferencing.⁶⁸

IV. MARKETING

A. Introduction

Many firms are now using new technology (mainly “Web sites” or “Home Pages” on the Internet) as a marketing tool. “There is no precise definition of ‘Home Page’ but the term is commonly used to refer to the default entry point into the Internet World Wide Web site of an organization or individual.”⁶⁹ “[The] World Wide Web or WWW is a hypertext system that allows users to ‘travel through’ linked documents, following any chosen route. World Wide Web documents contain topics that, when selected, lead to other documents.”⁷⁰

“Hypertext” consists of the following:

A system in which documents contain highlighted words, phrases or images that are selectable links that can move users readers easily between areas of the same document, other documents on the same computer, or if the computer is on the Internet, a document on a file located on a computer thousands of miles away.⁷¹

Hypertext allows organization of information in a unique and easy way, which cannot be duplicated in print media.⁷² “Microsoft Windows help system is another example of a hypertext system,”⁷³ as are many CD-ROMs and Lexis or Westlaw research processes.

In early 1994, only two U.S. law firms had serious presence on the Internet.⁷⁴ By mid-February of 1995, thirty-one lawyers or law firms had home pages of information and graphics.⁷⁵ As of June 1995, sixty-two lawyers or law firms had home pages.⁷⁶ *The Washington Post* now reports that more than 2600 firms have

66. *See id.*

67. *Id.*

68. *See id.*

69. JERRY LAWSON, VIRGINIA CONTINUING LEGAL EDUC., LAWYERS ON THE INTERNET, 1-235 (2d ed. 1996).

70. *Id.* at 1-243.

71. *Id.* at 1-235.

72. *See id.*

73. *Id.*

74. *See* Peter W. Martin, *Prospecting the Internet*, A.B.A. J., Sept. 1995, at 52.

75. *See id.*

76. *See id.*

web sites, up from just 1600 in January of 1996.⁷⁷ Sixty percent of the National Law Journal 250 firms (the largest 250 firms in the country) had web sites as of September 1997.⁷⁸

B. Client Cultivation

One obvious reason to have a web site or Internet presence is to attract clients. The Internet may be viewed as a combination of New York City and Paris, with equivalent population.⁷⁹ The population of the virtual world is diverse and very upscale.⁸⁰ A great deal of business is being transacted over the Net.⁸¹ As more and more firms develop an Internet presence, other firms must develop a presence in order to compete.⁸²

C. Recruiting

Many firms believe that the main benefit of a web site is for recruiting.⁸³ At Shaw, Pittman, Potts, and Troubridge, a Washington, D.C. firm, forty percent of the traffic on their web site is from law schools.⁸⁴

The placement process at the University of Virginia School of Law is now completely computerized. The Career Services On-Line System (CASE) allows student access to information on employers and job opportunities twenty-four hours a day.⁸⁵ Law students are becoming more and more computer savvy, and in order to recruit the top students, firms need to display their computer capabilities.

D. Cost

Red Street Consulting, an Internet consulting firm for the legal profession based in Massachusetts, estimates that a large firm would need to spend a minimum of \$10,000 to \$15,000 to cover the site's initial design and development.⁸⁶

77. See Beth Berselli, *Firms Find Web Sites Attract Clients, Recruits, Prestige*, WASH. BUS., Sept. 22, 1997, at F7.

78. See Cynthia Cotts, *Sharp Rise in Web Sites by Largest Firms*, NAT'L L.J., Oct. 6, 1997, at B7.

79. See Peter W. Martin, *Prospecting the Internet*, A.B.A. J., Sept. 1995, at 52.

80. See *id.*

81. See *id.*

82. See *id.* at 53.

83. See Beth Berselli, *Firms Find Web Sites Attract Clients, Recruits, Prestige*, WASH. BUS., Sept. 22, 1997, at F7.

84. See *id.*

85. See *Placement Process to Go On-Line*, 21 UVA LAWYER 36 (Spring 1997).

86. See Beth Berselli, *Firms Find Web sites Attract Clients, Recruits, Prestige*, WASH. BUS., Sept. 22, 1997, at F7.

Maintenance costs would be minimal.⁸⁷ J. Jaffe of Jaffe Associates says that a large firm would probably need to spend close to \$250,000 a year for a high quality site.⁸⁸ However, he includes in that figure "lost time," the hours lawyers spend working on the site instead of building clients. A smaller firm could develop a web site with as little as \$500, depending on how complicated you wish to make the site.⁸⁹ A very good web site could be developed for \$2500 or less.⁹⁰

Recently, I received a solicitation from the Personal Injury Law Firm Network. This company offers a customized multipage web site, e-mail address, and listing for an annual fee of \$200. Many similar services exist.

E. *What Should You Put On Your Site?*

A firm web site should do the following:

- (a) Tell the audience who you are.
- (b) Describe specific legal areas consumers should look to you for assistance.
- (c) Include legal commentary by the firm lawyers on some key client issues on papers posted on the net.
- (d) Use hypertext to link other documents and full text indexing to deliver information about the experience and expertise of your firm. This will allow you to reach a new world wide audience.
- (e) Provide two way communication capability to encourage a conversation via e-mail or completion of a user form.⁹¹

87. *See id.*

88. *See id.*

89. Personal interview with James Morton, President of Jemstone Computer Services, in Charlottesville, Va. (Sept. 29, 1997).

90. *See id.*

91. *See* Peter W. Martin, *Prospecting the Internet*, A.B.A. J., Sept. 1995, at 54.

F. Conclusion: "The New Yellow Pages"

I view the world wide web as the "new yellow pages." Particularly for small law firms, the yellow pages, and to a lesser degree television and radio advertisements, have provided a road to new markets and clients. I have observed the proliferation in recent years of law firms solely devoted to personal injury cases. These cases are highly profitable and, in the past, provided small firms with a significant source of income. In many cases, the difference between a great year and an average year would be contingency fees garnered from particularly egregious personal injury cases.

Now specialized personal injury firms are saturating the yellow pages, radio, and television with advertisements. Small law firms are seeing fewer and fewer personal injury cases. In my opinion, these small firms can no longer survive unless they carve out a niche. The Internet provides an excellent possibility to display your particular expertise or uniqueness to a huge audience. It can draw clients from across the world.

Attorneys often use presentations to local community groups as a marketing tool. Consider placing the text of your presentations on the Internet accessible via a hypertext link from your home page. This form of presentation draws substantial attention and enables you to become a virtual "rainmaker."⁹²

V. OTHER USES

A. Storage

The purchase of a scanner and some CD-ROMs allows scanning of documents onto the CD-ROM for storage. The major advantages of storage on a CD-ROM are capacity and protection.⁹³ A single CD-ROM stores up to 680 megabytes of data (the equivalent of hundreds of "floppy disks" and countless pages of hard copy).⁹⁴ Also, a CD-ROM's life span exceeds that of mere mortals.

B. Trial Presentations

The possibilities for technology-enhanced trial presentations are endless.⁹⁵ Hout and de Bodo present a fairly comprehensive list in their article.⁹⁶ Using

92. See, e.g., Jerry Lawson, *Making Rain on the Net*, INTERNET LAWYER, July 1996, at 1, 5.

93. See Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 40.

94. See *id.*

95. See Kevin M. Hout & Richard de Bodo, *Technologies for Courtroom Presentation*, PRAC. LITIGATOR, July 1996, at 61.

96. See *id.*

scanning technology and video laserdisc, the litigator can present documents, photographs, and other visual aids in a more appealing fashion.⁹⁷

In addition, the way that we litigate in general may soon change. On June 26, 1997, the United States Supreme Court decided *Reno v. American Civil Liberties Union*.⁹⁸ For the first time, in *Reno*, an electronic brief was accepted by a federal appellate court.⁹⁹ Schnader, Harrison, Segal, and Lewis, LLP, filed its *amici curiae* brief to the court on CD-ROM. Using hypertext technology, the brief and all of the cited Internet material (which was a First Amendment Internet case) were available to members of the Court on a single CD that could be reviewed from any computer equipped with a standard CD-ROM drive.¹⁰⁰ This submission is compact, self-contained, and searchable.¹⁰¹

This technology presents exciting possibilities whereby a litigant can file a brief that also contains the entire record in the case. With hypertext technology, the litigant can allow the judge to click on the citation for the reference and immediately review the case or other cited material.

C. Due Diligence Searches

One may also use *Yahoo!* or other search engines on the Internet as a valuable due diligent search tool. In one particular transaction in which I was involved, the seller of a company's assets was involved in litigation. The counsel for the purchaser conducted an Internet search for the name of the principal of the corporation and the corporate name. Using this search, the counsel found newspaper articles discussing the pending litigation.

Therefore, at little or no cost, a due diligence search uncovered valuable information. Query whether an attorney in such a situation who fails to do a due diligence search now is liable for malpractice.

D. Mailing Lists or Listservs

Mailing lists (or "listservs") consist of groups of people interested in a specialized or particular topic.¹⁰² The administrator (a volunteer) manages posted

97. See *id.* at 63-64.

98. See *Reno v. ACLU*, 117 S. Ct. 2329 (1997).

99. See Carl A. Solano, *Philadelphia Firm Brings Supreme Court into Digital Age*, LAW PRODUCTS., July-Aug. 1997, at 12.

100. See *id.*

101. See *id.* at 13.

102. See Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 38.

messages concerning a particular topic.¹⁰³ Each message is sent to all persons on the listserv directory.¹⁰⁴ Listservs are the Internet's "water cooler."¹⁰⁵

With listservs, attorneys may communicate with others in their specialty to "bounce ideas," inquire as to whether anyone has encountered a similar legal issue, or discuss the intricacies of a particular issue. Sometimes a listserv broadcasts news before it is generally available. For example, "the Internal Revenue Service recently announced a major change in its treatment of certain revocable trusts . . . the revenue

103. *See id.*

104. *See* G. BURGESS ALLISON, *THE LAWYER'S GUIDE TO THE INTERNET* 65 (1995). This author received a recent riddle on a listserv that illustrates this point.

Q: How many bankruptcy listserv users does it take to change a light bulb?

A: 1,331:

- | | |
|-----|--|
| 1 | to change the light bulb and post to the mail list that the light bulb has been changed. |
| 14 | to share similar experiences of changing light bulbs and how the light bulb could have been changed differently. |
| 7 | to caution about the dangers of changing light bulbs. |
| 27 | to point out spelling/grammar errors in posts about changing light bulbs. |
| 53 | to flame the spell checkers. |
| 156 | to write to the list administrator complaining about the light bulb discussion and its inappropriateness to this mail list. |
| 41 | to correct spelling in the spelling/grammar flames. |
| 109 | to post that this list is not about light bulbs and to please take this email exchange to alt.lite.bulb. |
| 203 | to demand that cross posting to alt.grammar, alt.spelling and alt.punctuation about changing light bulbs be stopped. |
| 111 | to defend the posting to this list saying that we all use light bulbs and therefore the posts **are** relevant to this mail list. |
| 306 | to debate which method of changing light bulbs is superior, where to buy the best for this technique, and what brands are faulty. |
| 27 | to post URLs where one can see examples of different light bulbs. |
| 14 | to post that the URLs were posted incorrectly, and to post corrected URLs. |
| 3 | to post about links they found from the URLs that are relevant to this list which makes light bulbs relevant to this list. |
| 33 | to concatenate all posts to date, then quote them including all headers and footers, and then add "Me Too." |
| 12 | to post to the list that they are unsubscribing because they cannot handle the light bulb controversy. |
| 19 | to quote the "Me Too's" to say, "Me Three." |
| 4 | to suggest that posters request the light bulb FAQ. |
| 1 | to propose new alt.change.lite.bulb newsgroup. |
| 47 | to say this is just what alt.physic.cold_fusion was meant for, leave it here. |
| 143 | votes for alt.lite.bulb. |

105. *See* Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 38.

ruling was published to certain listserv members on the Internet over a month before it was published.”¹⁰⁶ Also, important U.S. Supreme Court or other court decisions are disseminated through listservs often literally minutes or hours after their announcement.

However, one must proceed with caution when using mailing lists on listservs. In addition to client confidentiality concerns, opposing counsel may access the same list. Finally, much of the information posted provides little or no value.

E. Newsgroups

Newsgroups are similar to listserv lists. However, instead of each member of the group receiving an exact copy of every message sent, newsgroups let each member “browse through the stored messages” and choose those which they wish to read and reply.¹⁰⁷ In this sense, a newsgroup is similar to a community bulletin board.¹⁰⁸ Everyone should be able to find a newsgroup to their liking. Allison counted 9500 different newsgroup topics already existing.¹⁰⁹ Most newsgroups have a frequently asked question (FAQ) file so newcomers can review previous questions without duplicating the discussion.¹¹⁰

F. Alternative Dispute Resolution

Two existing programs attempt alternative dispute resolution in cyberspace. On-line Ombuds offices in the Virtual Magistrate Project are still in their infancy.¹¹¹ These projects are limited to disputes arising from the Internet.¹¹² The Ombuds project is like mediation, lacks enforcement powers and relies on the cooperation of the participants.¹¹³

The Virtual Magistrate Project is more like traditional arbitration.¹¹⁴ It “is administered by the American Arbitration Association, in accordance with its rules.”¹¹⁵ The policy for the Virtual Magistrate Project is established by the Cyberspace Law Institute, and day-to-day operations are handled by the Villanova Center for Information Law and Policy.¹¹⁶ The project is an experimental effort

106. *Id.*

107. G. BURGESS ALLISON, *THE LAWYER’S GUIDE TO THE INTERNET* 66 (1995).

108. *See id.*

109. *See id.* at 40.

110. *See id.*

111. *See* Richard M. Georges, *The Impact of Technology on the Practice of Law—2010*, FLA. B.J., May 1997, at 36, 40.

112. *See id.*

113. *See id.*

114. *See id.* at 41.

115. *Id.*

116. *See id.*

designed to resolve disputes arising from Internet usage and is voluntary.¹¹⁷ These systems currently have no power or legal authority.¹¹⁸ However, they can provide the framework for future alternative dispute resolution.

G. *Electronic Filing and Digital Signatures*

Courts are beginning to allow electronic filing and digital signatures. In 1996, the Supreme Court of Florida adopted rules pertaining to electronic filing and digital signatures.¹¹⁹ Although the electronic filing and digital signature procedure has not yet been implemented, the Supreme Court of Florida has indicated its clear intention to implement it in the future.¹²⁰ The future court system will be completely connected and accessible to all citizens.¹²¹ Under this system, “lawyers, judges, court staff, and litigants will have access to court information from computer terminals anywhere in the world.”¹²² This system will eliminate the barriers of transportation and geography and will reduce the costs of litigation.¹²³

H. *CyberNotaries*

The CyberNotary committee of the Section of Science and Technology of the American Bar Association and the CyberNotary Project of the U.S. Council for International Business has trademarked and service marked the “CyberNotary” terms.¹²⁴ Information about the concept has also been copyrighted.¹²⁵ Utah already has sanctioned CyberNotaries by statute.¹²⁶ Florida also has expanded the definition of “writing” to include “information stored or created in any electronic medium.”¹²⁷

I. *Public Record Searches*

Many companies now offer free or low price public record searches. For example, I recently received an advertisement from *KnowX*. They offer free state searches and detail record¹²⁸ previews. Detail records range from two dollars to nine

117. *See id.*

118. *See id.*

119. *See id.*

120. *See id.*

121. *See id.*

122. *Id.*

123. *See id.*

124. *See id.*

125. *See id.*

126. *See id.*

127. *Id.*

128. Robert L. Jones, *Client Confidentiality: A Lawyer's Duties with Regard to Internet E-Mail* (visited Apr. 7, 1998) <<http://www.gsu.edu/~lawppw/lawand.papers/bjones.html>>.

dollars. Nationwide searches are available for a fee.¹²⁹ However, many other public record search companies exist.

VI. CONCLUSION

The changes that technology has brought to the legal profession can be summarized in two words: *information* and *communication*. In many ways, everything that the legal profession accomplishes or provides involves those same two commodities. A key for all practitioners, but especially the small practitioner, will be to use the enhanced information and communication provided by the new technology in such a way as to provide efficient and quality service to their clients. Attorneys who refuse to learn and selectively apply the new technology will become modern day dinosaurs and drift into extinction.

In addition, small town attorneys can use the new technology to bridge the geographic distance that once existed between attorney and client, attorney and court, and attorney and the information it needs. Each lawyer now possesses a library filled with infinite information. Long distance telephone charges and time and expense of automobile or plane travel will be greatly reduced. These new found advantages allow the small town lawyer to do more than just hold her own against large firms. It enhances a competitive advantage and allows profitable survival into the twenty-first Century and beyond.

I close with a sonnet composed by Lucinda Roy, Professor of English at Virginia Tech.

Sonnet for a Cyberspace Odyssey

The quest grows large. We credit our advance
 To what we know of nature, how we enter
 Into spaces we decipher, how we digitally dance
 Across the chasm to the center
 Of a grid, where the God of Information
 Sits enthroned. On his left, Technology;
 On his right, we hope, Communication.
 Nothing stands still here. But everything we see
 Echoes where we've been and what we know.
 I want to go back and remember something

Detail record previews give a thorough outline of the information contained in a document retrieved by a search. As an example, if a deed was retrieved, the detail record preview would contain the name(s) of the grantor and grantee, date of the deed and or date recorded, a deed book and page reference for the deed and a brief description the property conveyed.

Id.

129. The home page for *KnowX* is contained at <www.free.knowx.com>.

Old. I want the journey forward to dare to show
Us who we are and what it is we bring
In the little bags strapped to our stories.
The one note we must sing out loud is the sound of glory.¹³⁰

130. Lucinda Roy, Remarks at The Advanced Communications & Information Technology Center Groundbreaking Ceremony, Virginia Polytechnic Institute and State University, Blacksburg, Virginia (Sept. 13, 1997).