Books vs. Non-Book Information

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BOOKS VS. NON-BOOK INFORMATION

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"We have preserved the Book, and the Book has preserved us."

—David Ben-Gurion

I. INTRODUCTION

For five hundred years the book has survived as the unchallenged primary source of recorded information. The book continues to flourish in this century, despite the growth in popularity of information in multimedia formats. Silent and moving pictures did not displace books, but rather in many instances promoted them. Although television may have enticed some readers away from books, book publishing has not declined during television's existence. Book publishing statistics indicate that non-book publications have had little impact upon the volume of sales in the book publishing industry or the number of readers.[1]

A. Microform

Thirty to forty years ago, the conversion of books and other written materials to microfilm and microfiche was regarded as the new technology that would enable libraries to accumulate vast numbers of books on film or fiche in lieu of book collections. Most libraries did initiate programs to acquire microform, expecting to reduce cost, conserve space, and acquire out-of-print materials. No one library, however, has been reduced to microform only. For example, the American Bar Association's 1992-93

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[1] *See, e.g.,* Jim Milliot, *Led by B-A-M, Chain Sales Up 19% in Last Quarter,* PUBLISHERS WKLY., May 29, 1995, at 28 (reporting nearly twenty percent increase in sales at four largest bookstores in first quarter of 1995); Jim Milliot, *Chain Sales Rise 18% in Year; Market Share Increases,* PUBLISHERS WKLY., Apr. 11, 1994, at 10 (noting 1993 retail book sale increase of 5.5%).

statistics on law school library collections indicate that, on average, only one-third of law library collections are composed of microform.[2] Such figures suggest that microform has not become the major substitute for printed publications that it was anticipated to be.

B. Law Book Collections

The legal profession thrives on information and has been totally dependent upon books for many years. Until recent decades, most law libraries contained basic legal reference collections with ample tools for locating information in those books. Treatises and other monographs, which supplemented primary source materials, comprised smaller segments of the collections.

In the past several decades, the American Bar Association prompted improvements in law school library collections by emphasizing library content as a requisite for accreditation. In the 1970s and 1980s, the expansion of law library collections resulted from adherence to the A.B.A. *Standards* for books.[3] The core collection list of required general, federal, and state law books published in the 1977 version of *Standards for Approval of Law Schools* was generally accepted and the titles changed very little until 1985 when the *Standards* were revised to contain more generic titles.[4]

C. Effect of Electronic Information on Book Collections

With the introduction of WESTLAW and LEXIS to the legal profession and the rapid expansion of sources included in those services, the eventual replacement of the law library's core col-

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[2] Julie Hanrahan, *1992-93 Statistical Survey of ABA Law School Libraries and Librarians*, 86 LAW LIBR. J. 617, 620 (1994).

[3] AMERICAN BAR ASSOCIATION, STANDARDS FOR APPROVAL OF LAW SCHOOLS AND INTERPRETATIONS, Annex II and III, Library Schedules A and B (1977).

[4] *Compare* AMERICAN BAR ASSOCIATION STANDARDS FOR APPROVAL OF LAW SCHOOLS AND INTERPRETATIONS, Annex II, Library Schedule A (1986) *with* AMERICAN BAR ASSOCIATION STANDARDS FOR APPROVAL OF LAW SCHOOLS, Annex II, Library Schedule A (1977). The applicable standards governing the necessary breadth of a core collection have also been revised considerably. *Compare* AMERICAN BAR ASSOCIATION STANDARDS FOR APPROVAL OF LAW SCHOOLS, Standard 602 (1986) (mandating that law school libraries contain requisite core collection materials enumerated in Annex II) *with* AMERICAN BAR ASSOCIATION STANDARDS FOR APPROVAL OF LAW SCHOOLS, Standard 606(b) (1995) (requiring that law libraries "provide within the law school's facilities, through ownership *or reliable access*, a core collection of essential materials") (emphasis added).

lection with online services appeared probable. A presumed corollary of the advent of electronic information was that libraries with fewer holdings and limited financial resources or insufficient space would subscribe to the computer services and reduce expenditures on books. Conversely, it was presumed that larger libraries would not need to spend large sums on computer services, but instead would continue to allocate funds for printed acquisitions.

In 1985, nearly a decade after the introduction of computer services in law schools, the A.B.A. released figures for law libraries, comparing expenditures on computer retrieval systems against expenditures on printed materials.[5] The survey revealed that there was no discernable pattern in allocation of funds to books or computer services by different sized libraries.[6] Some of the twenty largest law school libraries spent the most money on library materials as well as on computer services.[7] Thirteen of the twenty largest law libraries ranked in the top twenty for expenditures on library materials and five of the largest law libraries ranked in the top twenty for expenditures on computer retrieval.[8] Only half of those libraries that spent the most on computer retrieval services were below the mean for the amount of volumes held. These libraries may have been relying on computer services to compensate for smaller collection resources. Additionally, the figures were inconclusive for determining whether librarians base their acquisition decisions on the availability of information in non-book formats.[9]

In 1992-93, all of the largest law libraries ranked in the top twenty for library material expenditures, and four of these libraries also ranked in the top twenty for expenditures on computer retrieval services.[10] It is interesting to note that seven of

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[5] David A. Thomas, *1983-84 Statistical Survey of Law School Libraries and Librarians*, 77 LAW LIBR. J. 575 (1984-85).

[6] *Id.* at 579-610. The survey ranked libraries according to several criteria, including the number of books added during the past year, the number of books held at the end of the previous fiscal year, the number of print titles added during the past fiscal year, and the number of print titles held at the end of the previous fiscal year. *Id.*

[7] *Id.*

[8] *Id.*

[9] *See* BETTY W. TAYLOR & DAN F. HENKE, AUTOMATION IN THE LAW SCHOOL; INCLUDING LAW LIBRARIES 47-52 (1986).

[10] Hanrahan, *supra* note 2, at 620-60. The analysis was made by comparing the total amount of money spent on each particular library, exclusive of one time ex-

the law libraries that spent the most on computer retrieval services were among the smaller law libraries.[11]

George Grossman, in his "Report on Law Libraries" to the 1993 A.B.A. Conference on Law Schools,[12] gave an excellent overview of the present status of law libraries. Based on the 1990-91 figures from the ABA's annual survey of libraries, the average law library has grown at a rate of 7,000 book volumes per year.[13] The survey also indicates that the average library has spent 75% of its materials budget on serials, 15% on new titles, and 10% on databases.[14] These figures, which have remained consistent over the last three years, indicate that there is no trend toward reducing expenditures for hardcopy materials in favor of electronic information services.[15]

The 1992-93 ABA law school library figures show that the mean expenditure on serials was $505,417.[16] In contrast, the 1992-93 mean expenditure for computer services was $48,973, an increase from the 1979 average amount of $20,000 and the 1984 figure of $35,000.[17] As the figures indicate, computer expenditures comprised less than 10% of the amount spent on library serials in hardcopy format. Law libraries are the beneficiaries of the extraordinary value of the academic subscription rate for access to electronic information. Many of the titles in the A.B.A. *Standards* for a core library collection[18] are available on

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penditures such as construction, with the total amount spent on all online services, both legal and non-legal. *Id.* at 617-60. The four largest law libraries that were ranked in the top twenty for expenditures on computer retrieval services were New York University, Columbia University, University of Texas, and Boston University. *Id.* at 620-60.

[11] *Id.* The seven libraries are the University of North Carolina, University of North Dakota, University of South Dakota, University of Notre Dame, New York Law School, University of Missouri at Columbia, and University of San Francisco. *Id.*

[12] George S. Grossman, *Report on Law Libraries*, *in* THE LAW SCHOOL AND THE UNIVERSITY: THE PRESENT AND THE FUTURE, Mar. 19 & 20, 1993, at 33 (American Bar Association ed., 1993).

[13] *Id.*

[14] *Id.* I have been predicting that by the turn of the century, law libraries would be spending equivalent amounts on books and non-books. To date, the figures do not support that supposition.

[15] *See* D.T. Max, *The End of the Book?*, ATLANTIC MONTHLY, Sept. 1994, at 61-64 (explaining how publishing industry has changed but not declined in response to advent of electronic databases).

[16] Hanrahan, *supra* note 2, at 643.

[17] *Id.* at 649.

[18] *See supra* note 4 and accompanying text.

WESTLAW, LEXIS, or CD-ROM.   Subscription costs for
LEXIS/NEXIS and WESTLAW/DIALOG probably account for the
bulk of computer retrieval expenditures in law school libraries.
Such expenditures are still significantly lower in cost than those
for equivalent materials in hardcopy format.[19] The vast majority
of academic law libraries subscribe to both services.

Thus, in spite of the growing duplication of print and elec-
tronic information, it is safe to say that "The Book" remains the
primary format for information in academic law libraries today.
Figures for the last decade do not indicate any great surge to re-
duce expenditures or withdraw books from law school libraries
as access to more online databases and CD-ROM material is in-
creased. Some changes, however, are perceptible.[20]

II. MULTIMEDIA INFORMATION FORMATS

While it is safe to say that the book will not become an en-
dangered species, it is also fairly safe to predict that access to
electronic information will become commonplace in the legal pro-
fession.

With the introduction of personal computers in the 1970s,
society changed irrevocably.   Computers became the essential
tool for managing our professional and personal activities. They
dominated the information world, changing the way librarians
provided information services and the way users accessed infor-
mation. Law firms have been very influential in establishing the
computer as an essential tool for the legal profession.

In the 1970s, Mead Data Central, Inc. and West Publishing
Company launched the legal information revolution. These com-
panies undertook the massive project of digitizing the law. The
contents of their database products, LEXIS and WESTLAW, re-
spectively, consist of statutory, judicial, legislative, administra-
tive, and topical legal materials, as well as Shepards Citations,
law review articles, and more. Furthermore, the databases are
full-text libraries in contrast to databases for other disciplines
which are primarily bibliographic and indexing tools. Thus, one

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[19] For 1981 prices on required titles, see BETTY W. TAYLOR & DAN F. HENKE,
BUDGETING FOR THE LAW SCHOOL LIBRARY 24-30 (Julius J. Marke ed., 1981).

[20] The used book market for titles on the core collection list is flat, according to a
dealer in the Southeast. Law firms are downsizing their library collections and
flooding the market with used books, but no one is purchasing them. Interview with
Randall Brown, Law Book Exchange, in Jacksonville, FL.

can access complete legal documents by using search software and key words, resulting in the rapid retrieval of pertinent information. The software also makes it possible to retrieve information that is difficult or impossible to access in printed formats, such as the names of judges, lawyers, companies, and the proper names of products.

WESTLAW began as a spin-off of the publication of legal materials by a computerized process. Today, West's print publications and WESTLAW are complementary to one another. The books carry WESTLAW electronic research guides to expedite research, while online WESTLAW research is aided by the Topic and Key Number System developed for print publications.

Personal computers have replaced customized terminals as the preferred hardware for individuals to access LEXIS and WESTLAW. The companies have improved their programming and training by making the services more user-friendly for student and faculty research. For the last four years, law school faculty and students have been issued personal passwords, allowing them to access these systems from any location without the constraint of using law library computers.

This continued growth of online information, as well as its accessibility from locations outside the library, raises the question of the necessity of maintaining space for a library book collection. Schools contemplating new buildings confront this issue when dealing with administrators who are concerned about funding, donors, space, and rising costs. Notwithstanding the rhetoric, law school libraries need room to expand either in new buildings, additions, or remodelled areas. Several law schools are accommodating future library growth. No known library proclaims to be a library without walls or a totally virtual library as yet.

It is evident from the figures discussed above that law school book collections still expand annually and therefore space is needed to house the new additions.[21] Although the overall figures do not portray any obvious change in acquisition policies, librarians may be making purchase or withdrawal decisions based on availability of titles on the major computer legal-assisted research systems.

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[21] *See* Hanrahan, *supra* note 2 and accompanying text; *see also* Thomas, *supra* note 5 and accompanying text.

A. *Standards*

In 1986, the American Bar Association recognized the value of computerized legal information systems for research and writing. The 1986 amendment to American Bar Association Standard 602(a) provided that law school libraries should subscribe to a "[c]omputer assisted legal research service of national scope and broad subject coverage."[22] The *Proposed Revisions of ABA Library Standards and Interpretations* are currently under review.[23] Proposed Standard 606(b) is designed to reflect the current use of technology in law libraries, while adhering to the philosophy that law libraries should acquire and retain an adequate collection to support the mission of the law school.[24] The proposal states that "[a] law library shall provide, through ownership or reliable access, a core collection of essential materials."[25] This provision is intended to cover contracts, licenses, etc. as "reliable" access. If approved by the membership, the A.B.A. will officially recognize the existence of machine-readable infor-

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[22] AMERICAN BAR ASSOCIATION, STANDARDS FOR APPROVAL OF LAW SCHOOLS AND INTERPRETATIONS, Standard 602(a) (1986).

[23] AMERICAN BAR ASSOCIATION, PROPOSED REVISION OF ABA LIBRARY STANDARDS AND INTERPRETATIONS (1994 Draft Report). Since the date of this address, the A.B.A. adopted the proposed revisions to the standards governing law libraries. Standard 606(b) currently provides that "[a] law library shall provide within the law school's facilities, through ownership or reliable access, a core collection of essential materials." AMERICAN BAR ASSOCIATION, STANDARDS FOR APPROVAL OF LAW SCHOOLS AND INTERPRETATIONS 49 (1995). Interpretation 4 of Standard 606(a) expressly recognizes that "[a]t present, no single publishing medium (electronic, print, microform, audiovisual) provides sufficient access to the breadth and depth of recorded knowledge and information needed to bring a law school into compliance with Standard 606.

Consequently, a collection that consists of a single format may violate Standard 606." *Id.* at 50.

[24] *See generally* James P. White, *The American Bar Association Law School Approval Process: A Century Plus of Public Service*, 30 WAKE FOREST L. REV. 283, 289 (1995) (asserting that purpose of 1994 review of Standards was "to assure their validity and reliability and to reflect current and future developments in American legal education").

[25] AMERICAN BAR ASSOCIATION, PROPOSED REVISION OF ABA LIBRARY STANDARDS AND INTERPRETATIONS (1994 Draft Report). The first draft contained the word "possess," which was later deleted when the drafters realized that a library does not and cannot "possess" information that enters through communication lines. Furthermore, this information is often supplied under contract or license which prohibits users from "owning" the information.

The A.B.A. subsequently adopted the proposed revision of Standard 602(a). *See* AMERICAN BAR ASSOCIATION, STANDARDS FOR APPROVAL OF LAW SCHOOLS AND INTERPRETATIONS 48 (1995).

mation in law libraries.

Another proposed provision states that retention of infor-
mation in a single format may violate A.B.A. library standards.[26]
Again, information currently being published on CD-ROM or on-
line may not be available in any other format. This requirement,
which was never part of the book standards, attempts to regu-
late information in the technology format in a different manner
from information in hardcopy.

B. *Law and Related CD-ROMs*

A fast-growing non-book resource is the CD-ROM. In 1993,
more than 5,000 titles were published.[27] Figures released by the
Software Publishers Association indicate that CD-ROM sales to-
talled $202 million for 8 million disks.[28]

As with every other area, CD-ROMs are proliferating for the
legal profession. With new CD-ROM titles announced almost
daily, the tracking of new titles relating to legal interests be-
comes increasingly difficult. Publishing in the CD format allows
for greater creativity with information, particularly in the multi-
media format. For instance, a biography of President Clinton has
been published in hardcopy and on CD-ROM. The user may
choose between a printed copy with no multimedia function or
the CD-ROM version, which provides extensive multimedia in-
formation, such as photographs and speeches, that were only
partially addressed in the hardcopy version. The multimedia ca-
pability of the CD-ROM enhanced the product beyond the limi-
tations of the book.[29]

Prices for CD-ROM drives are spiraling downward. Mod-

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[26] AMERICAN BAR ASSOCIATION, PROPOSED REVISION OF ABA LIBRARY
STANDARDS AND INTERPRETATIONS, Proposed Standard 606(a)(4), Interpretation 5
(June 1994).

The A.B.A. did not explicitly adopt Proposed Standard 606(a)(4). The sentiment
reflected in the proposed standard, however, is incorporated by Interpretation 4 of
Standard 606(a). *See* AMERICAN BAR ASSOCIATION, STANDARDS FOR APPROVAL OF
LAW SCHOOLS AND INTERPRETATIONS 50 (1995) (indicating that single format core
collections may violate Standard 606(a)).

[27] MATTHEW FINLEY, 1994 CD-ROMS IN PRINT: AN INTERNATIONAL GUIDE TO
CD-ROM, MULTIMEDIA, & ELECTRONIC BOOK PRODUCTS at vii (1994).

[28] John F. Baker, *CD-ROM Sales Hit $202 Million*, PUBLISHERS WKLY., Apr. 11,
1994, at 10.

[29] *See e.g.*, Norman Desmarais, *Books in Print Plus*, *in* CD-ROM REVIEWS 1987-
1990, at 48-54 (1991) (describing searching software available when using CD-ROM
to access books).

ern computers are marketed with built-in CD-ROM drives, de-
creasing the unit cost and increasing the demand for CD-ROMs.
As a result, CD-ROM catalogs are flooding the market, covering
subjects such as law, education, games, travel, and classics. This
month, the writer received a catalog listing 900 titles in stock.
The last three years of U.S. Supreme Court Decisions on CD-
ROM were listed on the same page as Astrology, VocabuLearn,
Japanese for Business, Atlases, and Environment Resources.

A valuable reference to assist in tracking law titles on CD-
ROM is the *Directory of Law-Related CD-ROMs 1995.*[30] This di-
rectory lists more than 700 titles and contains a supplemental
newsletter listing additional titles. Its coverage encompasses ti-
tles related to legal, legislative and regulatory issues which are
published in the United States, Canada, and abroad, in English
and foreign languages.

One hundred sixty-six of the 171 law libraries reporting to
the ABA for 1993 disclosed holdings of only two to 360 CD-
ROMs. The mean number of disks held by all libraries was
twenty. Undoubtedly, the figures for subsequent years will leap
upward. Many publishers are now including CD-ROMs as part
of their publishing programs. One example is Matthew Bender's
Search Master, which incorporates multiple titles on a single
CD-ROM to permit comprehensive searching across databases.[31]
Other examples include Thomson & Thomson's Trademarkscan,
CCH's Tax Research Library, and Oceana and Hein's treaty in-
formation on CD-ROM. Many other publishers are covering
primary and secondary law, law-related, and other sources of in-
terest, too numerous to mention. The exclusive use of the CD-
ROM format and the spectrum of information available compels
libraries to adopt this technology in order to provide access to
material necessary for faculty and student research.

For some time now, WESTLAW has been producing CD-
ROMs. WESTLAW CD-ROMs currently include case law from
the fifty states, Puerto Rico, and the District of Columbia; anno-
tated statutes for twenty-five states; unannotated statutes for
fifteen states; several state administrative codes; federal case
law; eight topical libraries; and a legal directory of judges, law-

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[30] ARLENE L. EIS, DIRECTORY OF LAW-RELATED CD-ROMS (1995). The coverage
includes materials in both English and foreign languages.

[31] For an analysis of the legal uses for Matthew Bender's Search Master, see
Lois Shumaker, *Search Master Tax Library*, CD-ROM REVIEWS, 1991, at 291-94.

yers, and courts. The CD-ROM format creates administrative considerations that did not exist when administrators dealt solely with book collections. Such issues include the handling of a multitude of CD-ROMs, networking, maintaining updates, record-keeping of licenses and contracts, controlling the number of users, and acquiring hardware and software to accommodate the influx of CDs. On a diversified campus, policy issues are raised: who should be in control?; how should the data be made available to eligible users?; who should possess the authority to establish policy and set priorities?; who pays for the higher license fees?; and how many CD-ROMs are too many?[32]

With permission from publishers, several librarians are converting information from CD-ROMs onto hard drives. This conversion provides easier access to the information and eliminates the expensive, peripheral hardware required to network CD-ROMs.

CD-ROM technology is too new to project its impact upon book collections; however, CD-ROMs contain value-added data beyond the capability of books.[33] The visuals, sounds, and graphics appeal to a large segment of information users and makes information more palatable and consumable.[34] The newly released Interactive MovieBook Series may offer the kind of platform that could be employed in the publication of advanced law books. The combination of text in a two-page format with multimedia capabilities, such as movies, film, tapes, slides, photos, still pictures, and sound, could enable CD-ROMs to become the teaching tool of the future.[35] Although CD-ROMs will establish a niche in legal education and information, and may indeed become the media of choice in the future,[36] books presently main-

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[32] *See* M. Dellenbach, *Quality Control and Effective Inhouse Procedures for On-line Managers*, ONLINE 86 CONFERENCE PROCEEDINGS, 1986, at 52-56; Steven D. Zink, *Toward More Critical Reviewing and Analysis of CD-ROM User Software Interfaces*, CD-ROM PROF., Apr. 1991, at 16-22.

[33] The primary advantage of having CD-ROM in libraries is its use as collection materials for reference by end-users. *See* PAUL T. NICHOLLS, CD-ROM COLLECTION BUILDERS TOOLKIT: 1992 EDITION: THE DEFINITIVE REFERENCE FOR CD-ROM BUYERS 33-37 (Eight Bit Books 1991).

[34] *See* Max, *supra* note 15, at 61-62 (arguing that printed books are becoming less useful because of their inflexibility).

[35] For example, see THE SECRET GARDEN (Time Warner Enter. Co. 1994). Other titles in the series include BLACK BEAUTY and LASSIE.

[36] Lew Gossage & Bill Bayer, *Moving College Textbooks to CD-ROM*, CD-ROM PROF., Mar. 1994, at 90.

tain their preeminent position over this technology.

C. Internet and Other Online Resources

In the last decade, the public and librarians alike have advanced from using specific-purpose computers for access to PLATO, LEXIS and WESTLAW to multi-purpose computers that can access information through networks. A wide spectrum of information is now available on LEXIS/NEXIS, WESTLAW/ DIALOG, INTERNET, and other networks, such as FREENET, America Online, Compuserve, and Prodigy. The current prevalence of online databases accessible other than through LEXIS and WESTLAW, either by direct access or through the Internet, has drawn many patrons to the library rather than away from it. Frequently, these electronic sources guide patrons to hardcopy information that they may wish to consult. They often request information that would be difficult to locate in hardcopy and would have been unthinkable to expect to locate in a law library a decade ago.[37] Cyberspace librarians, or cybrarians, as they are sometimes called, are serving as consultants, instructors, and trainers in the technology and are crucial to successful information access. Cybrarians are becoming extraordinarily adept at retrieving information totally outside of the legal environment.[38]

Non-book information is capturing the imagination of creative faculty and students who are moving beyond the traditional legal collection and delving into areas beyond the confines of the printed word. The increased time spent communicating by E-Mail, sending and receiving comments on bulletin boards or list-serves, publishing online, and cruising the Internet have opened up new avenues of access to information that may be reducing the amount of time formerly devoted to the hardcopy book.

Books and periodicals are appearing in online databases or

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[37] The benefits are being realized as libraries become computerized, networked, and multi-media are cataloging productivity, greater information, and greater options to access the information. Glen E. Holt, *Public Library Cataloging and Technical Services: Changing Work Because of Computers and Networks, in* THE FUTURE IS NOW: THE CHANGING FACE OF TECHNOLOGICAL SERVICES: PROCEEDINGS OF THE OCLC SYMPOSIUM ALA MIDWINTER CONFERENCE 21-27 (1994).

[38] Librarians have been defined as "access managers" because of the technical services required of them. Glen E. Holt, *Alternative Futures for the Development of Library Science Education: A View from Inside the Library, in* EDUCATION FOR THE LIBRARY/ INFORMATION PROFESSION: STRATEGIES FOR THE MID-1990s 45 (1993).

CD-ROMs. The vast effort going into loading books and journals online and converting information from books to electronic formats becomes apparent when one examines Nuchine Nobari's *Books and Periodicals Online.*[39] The directory includes over 86,000 entries![40] Although online periodical articles eventually might be relied upon exclusively, it is impossible to predict if the online book will ever supersede the printed publication.

The Internet has introduced the global community to communication and information.[41] Users are able to interact instantaneously with information, individuals, and groups. Numerous publications extol the value of the information superhighway and the intricacies and wealth of data available at the touch of the keyboard.[42] What is the effect of the Internet on the printed word? The greatest impact has been on communications between individuals through E-Mail. E-Mail requires a modicum of computer knowledge and serves as a simple communications device which surpasses the speed of the postal process. It has become a popular vehicle for transfer of information, manuscripts, and critiques. The disadvantage of E-Mail messages, however, is in their lack of privacy and preservation. Messages can be intercepted by other persons and may be stored in databanks unknown to the sender or receiver.[43] For the individual, a printed copy may be the only method of preserving the communication between the individuals and insuring against misdelivery or loss.

The number of people accessing the Internet is increasing exponentially; however, it may be difficult to determine the quality, reliability, and stability of the information and even of the network access itself. An edited or refereed hardcopy instills

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[39] *International Directory Online and CD-ROM, in* BOOKS AND PERIODICALS ONLINE 1726 (Nuchine Nobari ed., 1994).

[40] *Id.*

[41] *See* William Brandel, *The Five Million Channel Man,* COMPUTERWORLD, Jan. 2, 1995, at 34 (providing transcript of interview with Nicholas Negroponte, Director of M.I.T.'s Media Lab, who anticipates that Internet will have one billion users by turn of century); Gary H. Anthes, *Internet Experts Grapple with Explosion of Users and Demand,* COMPUTERWORLD, Apr. 18, 1994, at 71 (estimating that available supply of Internet addresses will be consumed by year 2008).

[42] *See, e.g.,* HARLEY HAHN, THE INTERNET YELLOW PAGES (2d ed. 1995); HARLEY HAHN & RICK STOUT, THE INTERNET COMPLETE REFERENCE 818 (1994); JAMES MILLES, INTERNET HANDBOOK FOR LAW LIBRARIANS 64 (1993).

[43] *See* BENJAMIN WRIGHT, THE LAW OF ELECTRONIC COMMERCE: EDI, E-MAIL, AND THE INTERNET: TECHNOLOGY, PROOF AND LIABILITY (2d ed. 1995).

greater confidence in the quality of the text. Will scholarly pub-
lishing become common-place online? Communications between
and among authors through bulletin boards and discussion lists
available on the Internet have made it possible to produce the
full text of writings online, by-passing the print process. Legal
and assorted popular writings can be accessed online, but it is
improbable that any librarians have reached the point of telling
patrons that the library does not carry that book—read it on the
Internet or download it!

A great advantage of sharing information through the Inter-
net is that topical information can be posted for immediate re-
sponses. Bulletin boards, listservs, and discussion lists play a vi-
tal role in the daily exchange of information, ideas, and opinions
between and among diverse individuals.

In addition, a variety of tools that guide the user through
the maze of information on the Internet, including gophers,
WAIS (Wide Area Information System), and the World Wide Web
have been developed. Only time will tell whether these tools
make accessing and cruising the Internet so easy and enticing
that printed books will be forgotten.

D. Imaging and Digitizing Information

The process of digital imaging for replication of the printed
page and scanning hardcopies to produce machine-readable
products represent the first technological developments that may
have a major impact upon the print publishing industry. Scan-
ning that uses optical-character-recognition technology main-
tains the integrity of the printed page and provides a vehicle for
accessing the total content of the document, which is far beyond
the capability of a book.

A number of projects which attempt to introduce some of
these technological advances to the university campus by the
turn of the century have been initiated. For instance, the Janus
project originated at the Columbia University Law School in
1992 and subsequently was expanded to encompass university-
wide efforts.[44] To date, over 150,000 pages of documents from the

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[44] Mary C. Cage, *The Virtual Library: Leaders of Campus Projects Face Techni-
cal and Behavioral Challenges*, CHRON. OF HIGHER EDUC., Sept. 21, 1994, at A23
(commenting that benefit of using Janus is capability of conducting searches using
"optical-character-recognition technology," its only drawback being that it is only
95% accurate).

law library have been entered into the database.[45]   In 1991, a project was started by Mickie A. Voges at the Chicago-Kent College of Law whereby pages are scanned into digitized images, but are not scanned for machine-searchability. The undertaking, which was initiated with International Relations Library documents, has resulted in the entry of over one million pages into the college's online library system, with an additional 20,000 documents added weekly.[46]

Other projects contributing to the mass of scanned literature include: Yale/Cornell joint efforts; Government Printing Office; Project Gutenberg; Law Library of Congress's GLIN (Global Legal Information Network); Carnegie Mellon University's Project Mercury; THOMAS and the National Digital Library by the Library of Congress; and Internet Law Library from the U.S. Congress, House of Representatives. As a result of these agencies' and institutions' efforts, the virtual library may someday become a reality. The libraries of the future may contain only those high demand books that are read from cover to cover, while other information that form parts of a larger piece will be read online.

E. Issues

The incorporation of computers into library programs raises issues distinct from those that arise with adding books to a collection. Unresolved questions confront those who are considering library needs and space in the future. For instance, are libraries obligated to provide computers for the student body to access the world of information available? And if so, how many? Should laptop computers be available at checkout desks? How much access should be provided and at what cost? Who should pay? If this cost is to be assumed by the library, how can it be controlled? Answers to these questions create similar dilemmas for law school professors, students, administrators, and accreditors. For example, what will be acceptable legal research in the future? Do students need to learn how to conduct research in books, books and computers, or only on computers?

American Association of Law Libraries Executive Director Roger Parent, in reviewing the discussions on 1993 focus groups of law librarians, pointed out that librarians had mixed views on

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[45] *Id.*
[46] *Id.*

the increasing use of electronic information.[47] "Some felt that this represented a threatening environment, while others believe it provides librarians with rich opportunities for showing what we can do."[48] Some librarians commented on the financial side while "[s]ome mentioned the costs of maintaining duplicate files of materials during this transition phase (which will last a long time) from a paper-based library to an electronic one."[49] One thing is clear: the advent of technology has created issues concerning the proper role of electronic information and computer-assisted legal research services in the law library of tomorrow. Not all librarians agree, however, on either the identity of these issues or their possible solutions.

III. CONCLUSION

Book survival, particularly in the field of law, is faced with various challenges in this modern age of computer technology.[50] Are law librarians at the crossroads where we have chosen non-book resources over books because of their superiority in content and value? Will books survive? Will only some types of books survive? These questions serve as fodder for futurists, happy solutions for financial woes of administrators, and concern of librarians about service, space, and, perhaps most important of all, their own survival.

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[47] Roger Parent, 25 AALL NEWSLETTER 184 (Dec. 1993).
[48] *Id.*
[49] *Id.*
[50] *See* Max, *supra* note 15, at 61-64 (discussing challenges to continued existence of books as viable research alternative in age of electronic media).