Contemporary and Future Directions in American Legal Research: Responding to the Threat of the Available

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I. LAW PUBLISHING IN THE UNITED STATES

Histories of law publishing in the United States can be found in a number of sources, several of which are listed in the bibliography¹ that accompanies this article. Although there are no completely up-to-date treatments of the subject, the most comprehensive is probably Erwin C. Surrency's *A History of American Law Publishing* (1990). Surrency discusses American legal publishing from the colonial era to the late twentieth century, but his book closes before the far-reaching changes resulting from the growth of electronic publishing and dissemination of legal information in the latter years of the twentieth century. A few sources discuss the initial impacts and implications of computer-assisted legal research databases.² More recent literature on the Internet's effects on legal research is discussed in section IV of this article. Other useful sources for exploring the history of U.S. law book

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¹ The article employs footnotes prepared in general conformance to United States *Bluebook* style, primarily to provide specific references to sources discussed in the text. The bibliography provides full publishing information about the most important sources cited in the article.

² See, e.g., William G. Harrington, "A Brief History of Computer-Assisted Legal Research," 77 *Law Library Journal* 543 (1985); Robert C. Berring, "Legal Research and Legal Concepts: Where Form Molds Substance," 75 *California Law Review* 15 (1987) [hereinafter "Where Form Molds Substance"]; Morris L. Cohen, "The Legal Publishing Industry in the 20th Century and Beyond," *Legal Reference Services Quarterly*, No. 3/4, 1991, at 9.

publishing are found in two edited collections: George S. Grossman's *Legal Research: Historical Foundations of the Electronic Age* (1994); and Betty Taylor and Robert Munro's four volume set: *American Law Publishing 1860-1900: Historical Readings* (1984).

The history of law book publishing in the U.S. suggests that since the last quarter of the nineteenth century, the industry has been dominated by a few large publishers, most notably the West Publishing Company of St. Paul, Minnesota.³ This pattern of concentration continued throughout the twentieth century as West, the Lawyers Cooperative Publishing Company, and several regional publishers served as sources for commercial (and sometimes official) versions of primary sources of law (judicial opinions, statutes, and other authoritative materials), and as suppliers of legal treatises, text books, indexes and other finding aids. Only the scholarly literature of U.S. law, which is found primarily in student-edited journals housed at law schools, was (and continues to be) published outside the commercial realm.

The present environment for legal publishing in the United States reflects the general trend in the publishing industry toward concentration of resources and imprints under the banners of a few multi-national companies. As reported by the American Association of Law Libraries in its web-based list of legal publishers,⁴ there are three major publishing groups focusing on U.S. law: the Thomson Corporation, which includes West Group; Reed-Elsevier, which includes LexisNexis; and Wolters-Kluwer, which includes Aspen and Commerce Clearing House. None of the parent companies are based in the U.S. Only a few independent U.S. law publishers remain, most notably the Bureau of National Affairs (BNA) Inc., William S. Hein & Co., Inc., and Oceana Publications, Inc.⁵ In addition, the American Bar Association and some professional and state bar associations also have significant publication programs.

³ See Cohen, *supra* note 2, at 10.

⁴ See American Association of Law Libraries. Committee on Relations with Information Vendors. A Legal Publishers List: Corporate Affiliations of Legal Publishers. 2d ed., at <http://www.aallnet.org/committee/criv/resources/tools/list/#WK> (last visited March 1, 2003).

⁵ In 2002, Anderson Publishing Company, a long-standing publisher of state and regional legal materials, left the list of independents when it became a member of the LexisNexis group of publishers.

The current legal publishing environment in the United States is also characterized by the availability of extensive amounts of legal information via the Internet, not only through LexisNexis, Westlaw and other commercial services, but through publicly accessible sites maintained by courts, legislatures, and other branches of government at all levels, and by law schools.⁶ The growing availability of primary legal materials from a variety of web sources was certainly one factor in the decisions of LexisNexis and Westlaw in the late 1990s to move their services away from reliance on dedicated software in favor of web-based interfaces. In late 2002, both services reported that the great majority of their use was via web browser.⁷

In addition to those factors, each of which signals a change in the legal publishing environment, a key continuing characteristic is the large and constantly growing amount of law that is published and available for U.S. legal researchers. In a large country with a federal government, fifty state governments, and thousands of local jurisdictions issuing legislation, court decisions, and administrative regulations and decisions, large amounts of law are generated and published in print and electronic formats. It is estimated that in 2000 the body of U.S. law included over 6 million published cases, with about 200,000 new cases published annually, and 50,000 pages of state and federal legislation added to the statute books each year.⁸ These figures, of

⁶ For a discussion of U.S. lawyers' uses of the web for research, see Jason Krause, "Netting Information," *ABA Journal*, March 2003, at 36. See Melissa Barr, "Democracy in the Dark: Public Access Restrictions from Westlaw and LexisNexis," *Searcher*, Jan. 2003, at 66, for discussion of the limitations of publicly accessible sources in comparison to LexisNexis and Westlaw. See 2001 *American Bar Association Legal Technology Resource Center Survey Report: Online Research* (2002) [hereinafter *Online Research Survey*] for the results of a survey of lawyers' uses of electronic resources.

⁷ David Beckman & David Hirsch, "Net Works: Web-based Lexis, West Great for Hotlinks But Could Improve Some Other Services," *ABA Journal*, Oct., 2002, at 54 (reporting West's claim that 72 percent of its subscribers use the web, Lexis's claim that nearly 90 percent of searches come through the web).

⁸ Roy M. Mersky & Donald J. Dunn, *Fundamentals of Legal Research* 11 (8th ed. 2002). Indeed, the thirst for case law is so great that not only are more cases included in electronic databases than are available in the traditional print reporters, but since 2001, West has issued the *Federal Appendix*, a reporter that publishes "unpublished" federal appellate cases. The questions that arise regarding the uses and precedential value of cases that are considered to be unpublished or are available only in electronic formats have spawned a small literature in U.S. law reviews. See e.g., Lauren Robel,

course, do not include the secondary literature—treatises, journal articles, legal encyclopedias—written for scholarly purposes and to help lawyers work their way through the wealth of primary authorities.

II. THE PRACTICE OF LEGAL RESEARCH IN THE UNITED STATES

Which of the available resources are most likely to be used to conduct legal research conducted in the United States? In considering how legal research is conducted in the United States, it is worth noting the 1931 comments of the legal educator and philosopher Karl Llewellyn who cautioned lawyers about what he called the "threat of the available," defined as:

[T]he almost inevitable tendency in any thinking, or in any study, first to turn to the most available material and to study that—to study it exclusively—at the outset; second, having once begun the study of the available, to lose all perspective and come shortly to mistake the merely available, the easily seen, for all there is to see.⁹

One wonders if this is a tendency to which twenty-first century U.S. lawyers will be increasingly prone in light of the conversion of substantial amounts of legal materials, but not all, into electronic formats. Do legal researchers already rely less on the print and other resources traditionally housed in law libraries than on full-text legal databases? Academic law librarians have debated this question in attempts to gauge the continued usefulness and importance of their substantial print collections. In 1999, Penny Hazelton of the University of Washington estimated that, even if she removed the hard copies of everything in her library that was available through

"The Practice of Precedent: Anastasoff, Noncitation Rules, and the Meaning of Precedent in an Interpretive Community," 35 *Indiana Law Review* 399 (2002).

⁹ Karl N. Llewellyn, "Legal Tradition and Social Science Method—A Realist's Critique," in *Essays on Research in the Social Sciences* 89, 95-96 (1931), reprinted in Karl N. Llewellyn, *Jurisprudence: Realism in Theory and Practice* 77, 82 (1962). My thanks to Michael Chiorazzi for reminding me of Llewellyn's comments in a pre-publication version of his article: "Books, Bytes, Bricks and Bodies: Thinking About Collection Use in Academic Law Libraries," *Legal Reference Services Quarterly*, no. 2/3, 2002, at 1, 2. Chiorazzi credits Roger Jacobs of the Notre Dame Law School for bringing the comments to his attention.

LexisNexis or Westlaw, 87 percent of the books in the U.W. law library would still remain on the shelves.¹⁰ Yet, Michael Chiorazzi has argued that evidence of slight duplication between a law library's print holdings and easily-available electronic resources proves little about which resources legal researchers are using. In Chiorazzi's estimation, a core collection of 25,000 volumes, nearly all of which are now available through NexisLexis and Westlaw, is all that is needed for 80-90 percent of use.¹¹ If computer-skilled legal researchers have ready access to extensive research databases in law libraries, at home, or anywhere else a wired or wireless network connection is available, what are their incentives for looking beyond the databases, or caring whether other non-electronic resources are available?¹² Does the "threat of the available" already govern much of the practice of US legal research? How does the ready availability of legal information via the Internet affect the quality of the research that is conducted?

Attorneys, librarians and others have criticized the research skills of young lawyers and law students for years, especially since the advent of Lexis and Westlaw.¹³ One frequently cited article based on a 1990 survey about the

¹⁰ Penny A. Hazelton, "How Much of your Print Collection is Really on Lexis or Westlaw?" *Legal Reference Services Quarterly*, no. 1, 1999, at 3, 4. For an application of Hazelton's findings to the law firm library setting, see Thomas R. Keefe, "Blowing Up the Law Firm Library: A Practical Primer," *Research Advisor*, Nov. 2002, at 1.

¹¹ Chiorazzi, *supra* note 9, at 11. The concentrated use phenomenon also occurs within the databases themselves. Chiorazzi cites a West Group spokesman for the proposition that 92 percent of the queries run in Westlaw are in only 8 percent of the available databases. *Id.* at 6 (quoting Dan Dabney, Senior Director of Research and Development at West Group).

¹² A recent American Bar Association survey of lawyer's research habits concluded that responding lawyers "still prefer print resources to any other for legal research including CD-ROMs, Web and online formats." See *Online Research Survey*, *supra* note 6, at viii. The data in the report, however, suggests that the surveyed lawyers more often used some electronic format (proprietary online, free or fee-based web, or CD-ROM) than print for researching federal and state case law, legislation, and administrative law. See *id.* at 61-63; 75-77.

¹³ See, e.g., Donald J. Dunn, "Why Legal Research Skills Declined, or When Two Rights Make a Wrong," 85 *Law Library Journal* 49, 49-52 (1993); "Legal Research Skills: Is the Profession at Risk?" in *Graylyn Conference Report 1990* at 47-76 (Donald J. Dunn, ed. 1991) (transcript of panel discussion of legal educators and practitioners); Joan S. Howland & Nancy J. Lewis, "The Effectiveness of Law School Legal Research

research habits of summer clerks and first year lawyers (in a pre-web, pre-Internet environment), found that, in the opinions of law firm librarians, law students clerking in firms during the summers and newly hired associates relied too heavily on the Lexis and Westlaw; and often turned to computer-assisted legal research systems before looking at books in the library.¹⁴ One librarian commented that the young lawyers were unwilling to learn efficient searching and found it amazing that they were "so careful about most aspects of their work, [but] so sloppy about computer searching."¹⁵

In 1999, John Hanft wrote about legal researchers' "loss of peripheral vision" in describing the hard-to-define differences between performing research using a computer and sitting "[w]ith piles of papers on our desks and books open on our lap[s]. As Hanft put it, with books "at least we had a feel for where we were."¹⁶ The difference in feeling between book and computer research is hard to articulate, but many observers connect law students' preference for electronic research to what they see as a decline in new lawyers' skills in legal research and analysis.

Although librarians and others have long shared the sense that lawyers are less effective researchers than they might be, the published literature on the subject suggests that we actually know very little about how lawyers go about their research.¹⁷ In many ways, the most useful comments on the matter remain those made by Morris Cohen in 1969. When asked to speak on "Research Habits of Lawyers," Cohen began with the statement that: "[W]e know a great deal about the *materials* of legal research, ...but almost nothing about the actual procedures used by lawyers in their search into the law."¹⁸

Programs," 40 *Journal of Legal Education* 381 (1990).

¹⁴ Howland & Lewis *supra* note 13 at 388. The results of a newer version of the study are due to be published in 2003.

¹⁵ *Id.* at 387.

¹⁶ John K. Hanft, "A Model for Legal Research in the Electronic Age," *Legal Reference Services Quarterly* 1999, no. 3, at 77, 79.

¹⁷ The American Bar Association has occasionally surveyed law firms on their uses of technology. Recent surveys, in 1999 and 2001, have included questions regarding lawyers' preferred formats for legal research. For the most recent results, see *Online Research Survey*, *supra* note 6. For citations to some of the earlier literature see Penny A. Hazelton, "Surveys on How Attorneys Do Legal Research," *Perspectives: Teaching Legal Research and Writing*, Jan. 1993, at 53.

¹⁸ Morris Cohen, "Research Habits of Lawyers," 9 *Jurimetrics Journal* 183, 183 (1969).

Cohen not only suggested explanations for the apparent poor state of legal research, but outlined the main differences between legal research and research in other disciplines. He found that poor research results from: poor education and training in legal bibliography and research; a lack of professional standards for research¹⁹; the economics of law practice—too little time for research, difficulties in billing clients for research time; and (possibly) shortcomings in the tools of legal research. The article closed with the observation that to improve legal research "computers may help, but are unlikely to be the whole solution."²⁰

Perhaps the most influential contribution of Cohen's article, however was his description of how legal research differs from research in other fields. First, he noted that, compared to research in other fields, legal research is normally undertaken for professional, rather than for scholarly purposes. Lawyers conduct research to find answers to problems. Second, the conduct of legal research is driven by the nature of the primary source materials and by their sheer bulk.²¹ Legal research requires complex finding tools, as well as the means to evaluate the currentness and continued validity of the sources. Third, principles of jurisprudence—the rules of precedent, jurisdiction, etc.—determine how materials are used, establish their relative importance and structure the relationships among them. As Cohen put it, "[T]he nature of legal bibliography is determined in many ways by the nature of the law itself, and, in turn, the nature of legal research is determined, in part at least, by the bibliography on which it works."²²

¹⁹ Cohen wrote well before a 1992 American Bar Association report recognized legal research as a fundamental lawyering skill. See American Bar Association Section of Legal Education and Admissions to the Bar, *Legal Education and Professional Development—An Educational Continuum: Report of The Task Force on Law Schools and the Profession: Narrowing the Gap* 138, 157-163 (1992) (commonly known as the McCrate Report). For background on the McCrate Report's treatment of legal research, see Donald J. Dunn, "Legal Research: A Fundamental Lawyering Skill," 1 *Perspectives: Teaching Legal Research and Writing* 2, at 2.

²⁰ Cohen, *supra* note 17, at 194.

²¹ In Cohen's words: "[T]he materials of our law seem to be marked by an accelerating birth rate, an almost non-existent mortality rate, and a serious resistance to contraception on the part of both judges and legislators." *Id.* at 187-188.

²² *Id.* at 188.

III. APPROACHES TO EDUCATION AND TRAINING IN LEGAL RESEARCH

In the United States, training in legal research and bibliography can be traced back to early twentieth century efforts by legal publishers and the librarians at some law schools.²³ The literature²⁴ suggests that there have been two longstanding approaches to legal research instruction in the U.S.: the bibliographic approach, which emphasizes the materials and the tools of legal research and the literature of the law; and the process approach, which places researching the law within the overall problem-solving activities of lawyers, which encompass fact research, analysis, and writing, as well as "library" research. The models are not pure, but arguing about their merits was in fashion for a period beginning in the late 1980s, particularly for some of the textbook writers.

Law Library Journal articles by Christopher and Jill Wren²⁵ and by Bob Berring and Kathleen Vanden Heuvel²⁶ are the standard sources for discussion of the relative merits of the process and bibliographic approaches to legal research instruction. Each provides citations to the key literature on legal research instruction.²⁷

²³ For a brief history, see Joyce Manna Janto & Lucinda D. Harrison-Cox, "Teaching Legal Research: Past and Present," 84 *Law Library Journal* 281, 282-289 (1992). A contemporary account of the beginnings of legal research instruction in the United States by a significant figure in the history of American law librarianship is Frederick C. Hicks, "The Teaching of Legal Bibliography," 11 *Law Library Journal* 1 (1918).

²⁴ The literature about legal research instruction (and the related topic of legal writing instruction) is quite large. Legal research instruction is covered frequently in the pages of *Law Library Journal* (1908-), *Legal Reference Services Quarterly* (1981-), and *Perspectives: Teaching Legal Research and Writing* (1992-). Most issues of *Perspectives* also include a list of recent books and articles on research and writing.

²⁵ Christopher G. Wren & Jill Robinson Wren, "The Teaching of Legal Research," 80 *Law Library Journal* 7 (1988).

²⁶ Robert C. Berring & Kathleen Vanden Heuvel, "Legal Research: Should Students Learn It or Wing It?," 81 *Law Library Journal* 432 (1989).

²⁷ The discussion continued in two follow-up pieces. See Christopher G. Wren & Jill Robinson Wren, "Reviving Legal Research: A Reply to Berring and Vanden Heuvel," 82 *Law Library Journal* 463 (1990); Robert C. Berring & Kathleen Vanden Heuvel, "Legal Research: A Final Response," 82 *Law Library Journal* 495 (1990). The debate was joined again a few years later with some new participants. See Helene S. Shapo & Christina L. Kunz, "Teaching Research as Part of an Integrated LR & W

In addition to noting some of the literature on legal research instruction, the bibliography to this article also includes a list of the most recent (although not necessarily the best) editions of the standard U.S. legal research texts. *How to Find the Law*, written most recently by Cohen, Berring, and Olson;²⁸ *Fundamentals of Legal Research* by Mersky and Dunn (2002);²⁹ and *Effective Legal Research* by Price, Bittner and Bysiewicz might be viewed as focusing on a traditional, bibliographic approach to legal research instruction. *The Process of Legal Research* and *The Legal Research Manual: A Game Plan for Legal Research and Analysis* can be seen as examples of texts emphasizing the process approach.³⁰ Of these works, only *Fundamentals of Legal Research*, and *The Process of Legal Research* continue to be published in current, twenty-first century, editions.³¹

For the most part, the debates over the process and bibliographic approaches to legal research instruction took place before the rise of the Internet and the mergers and acquisitions that led to concentration in the legal publishing industry. Arguments about which emphasis is most appropriate

Course," 4 *Perspectives: Teaching Legal Research and Writing* 78 (1996) and Robert C. Berring, "A Sort of Response: Brutal Non-Choices," 4 *Perspectives: Teaching Legal Research and Writing* 81 (1996) [hereinafter "Brutal Non-Choices"].

²⁸ Authors and editors of earlier editions include: Henry J. Brandt, Fred A. Eldean, Carlton B. Putnam, and William R. Roalfe.

²⁹ Authors of earlier editions include: Ervin H. Pollack and J. Myron Jacobstein.

³⁰ Berring places Marjorie Rombauer's *Legal Problem Solving: Analysis, Research & Writing*, first published in 1970, in a category of its own, and characterizes Rombauer's approach as "a bold statement integrating legal thinking, research and reasoning into a coherent whole." Robert C. Berring, "Collapse of the Structure of the Legal Research Universe: The Imperative of Digital Information," 69 *Washington Law Review* 9, 25 (1994) [hereinafter "Collapse of the Structure"].

³¹ An abridged edition of *How to Find the Law* lived on through 1999 as what one of its last authors called a "grateful grandchild" of the older text. See Robert C. Berring & Elizabeth A. Edinger, *Finding the Law*, v (11th ed. 1999). In 2002, Berring announced that the 1999 edition of *Finding the Law* would not be revised and that instead the authors would be writing a shorter "primer on legal research survival skills for first-year students." Bob Berring, "Thinkable Thoughts: Research Guides, R.I.P.?", *Law Librarians in the New Millennium*, No. 2, 2002, at 3,3 [hereinafter "Research Guides, R.I.P.?"]. The 93 page primer appeared in 2002. See Robert C. Berring & Elizabeth A. Edinger, *Legal Research Survival Manual* (2002).

have been heard less frequently in recent years.³² In 2000, Berring identified the key questions for those concerned about legal information in the 21st century as: what constitutes legal information?; who controls it?; and how is it changing?³³ This is clearly a different set of questions from those posed in the traditional texts or legal research courses,³⁴ whether bibliographic- or process-based in their approaches. In a pre-Internet environment there was little need to consider questions of this sort.

IV. THE EFFECTS OF THE NETWORK ENVIRONMENT ON LEGAL RESEARCH

Much late twentieth century thinking about U.S. legal research and training was premised on assumptions about the uniqueness of the legal information environment. Picking up on Morris Cohen's observations about the connections between law, legal bibliography, and legal research,³⁵ Bob Berring has published a series of law review articles exploring the relationships between legal literature and legal thinking.³⁶ In a 2000 article, Berring

³² In his 1996 *Perspectives* article, Berring noted that "[he] and the Wrens agree about many things these days." Berring, "Brutal Non-Choices," *supra* note 27, at 81, n. 1. See Paul Douglas Callister, "Beyond Training: Law Librarianship's Quest for the Pedagogy of Legal Research Education," 95 *Law Library Journal* 1, 11-22 (2003) for a reexamination of the debate over the process and bibliographic approaches.

³³ Robert C. Berring, "Legal Information and the Search for Cognitive Authority," 88 *California Law Review* 1673, 1677-78 (2000) [hereinafter "Search for Cognitive Authority"]. As suggested by the number of references to his works throughout this article, Bob Berring is the foremost contemporary commentator on legal research in the United States. Berring's writings, in particular those about the impacts of changing technology on the legal research environment, are notable for their insight and erudition.

³⁴ As Berring points out: "Most [existing] legal research courses could not possibly approach such questions ... [I]t is unlikely that the instructor has thought through the question." Berring, "Search for Cognitive Authority," *supra* note 33 at 1678.

³⁵ See *supra*, text accompanying notes 21-22.

³⁶ In 1987, Berring noted that the "history of the development of forms of legal publication ... poses the question whether the forms of publication have been mere vehicles for the transmission of legal knowledge, or important influences in the development of that knowledge." Berring, "Where Form Molds Substance," *supra* note 2, at 15. See also Berring, "Collapse of the Structure," *supra* note 30; Robert C. Berring, "Chaos, Cyberspace and Tradition: Legal Information Transmogrified," 12 *Berkeley Technology Law Review* 189 (1997) [hereinafter "Legal Information Transmogrified"]; Robert C. Berring, "Legal Research and the World of Thinkable

presented the notion of law's "conceptual universe of thinkable thoughts" based in "[t]he confluence of Blackstone's categorization structure, the American Digest System, legal education, and all of those trained within it."³⁷ Among other things, the conceptual universe provided "a bright-line border between legal information and 'other' sources."³⁸ Within this universe (as Berring had noted in an earlier article), the point of legal research was to find primary authorities ("nuggets of truth or treasure")³⁹ to construct arguments and solve problems. Effective legal research should yield not only data to help build an argument, but an answer somewhere in the law itself.⁴⁰ Law's universe not only had its own dedicated publishers and information providers,⁴¹ but, by creating the system for classifying law in its digests, one publisher—West—helped to shape how U.S. lawyers thought about the law.⁴²

Thoughts," 2 *Journal of Appellate Practice and Process* 305 (2000) [hereinafter "World of Thinkable Thoughts"]; Berring, "Search for Cognitive Authority," *supra* note 33.

³⁷ "World of Thinkable Thoughts," *supra* note 36, at 311. Berring credits the origin of the concept "thinkable thoughts" as it applies to legal information to Dan Dabney, *id.* at n.13. Later writers have also adopted the phrase. See, e.g., Scott Matheson, Searching Case Digests in Print or Online: How to Find the "Thinkable Thoughts," *Perspectives: Teaching Legal Research and Writing*, Fall 2002, at 19.

³⁸ Berring, "World of Thinkable Thoughts," *supra* note 36 at 311. Schauer and Wise have described this as law's "informational autonomy." Frederick Schauer & Virginia J. Wise, "Nonlegal Information and the Delegalization of Law," 29 *Journal of Legal Studies* 495, 514 (2000). ("In many respects legal decision making is highly information dependent and was traditionally dependent on a comparatively small universe of legal information, a universe whose boundaries were effectively established, widely understood, and efficiently patrolled.")

³⁹ Berring, "Collapse of the Structure," *supra* note 30, at 13.

⁴⁰ *Id.* at 11.

⁴¹ See Berring, "World of Thinkable Thoughts," *supra* note 36, at 317 ("While the old publishers of legal information...were interested in profit, they were also deeply versed in the law. The courts and the academy had influence over them"). Elsewhere, Berring discusses the close relationships that West developed with the judiciary and practicing attorneys: "[West's] motto, 'Forever Associated with the Practice of Law,' was more than a marketing slogan. West saw itself as a partner to the courts, ...West worked with the Courts to be dependable." Berring, "Legal Information Transmogrified," *supra* note 36, at 193.

⁴² See Berring, "Search for Cognitive Authority," *supra* note 33, at 1693 ("Generations of lawyers learned to conceptualize legal problems using the categories of the Topics and Key Numbers of the American Digest System."). Noting the influence of the Harvard model of legal education as well as that of West's digest system, Berring writes that "as time passed legal scholars forgot that choices had been

Although Westlaw and Lexis moved legal researchers away from full reliance on print resources, they were designed by law publishers and lawyers to be used by lawyers. As such, "[they] represented a crack in the old system, but only that."⁴³ Even as computer-based research made research procedures in other disciplines seem increasingly similar to each other, law was seen as somehow different. Traditionally, law students entered law school and entered this universe as part of their socialization into the profession. Berring described the universe of legal information after the first three quarters of the twentieth century as remarkably stable: "What information belonged in this universe and how that information would be organized and verified was settled and beyond dispute."⁴⁴

As Berring and others⁴⁵ have pointed out, however, the twenty-first century legal information environment is neither stable nor unique. Several reasons for these changes can be readily identified. The first is the new structure of the legal publishing industry. As noted above, the major law publishers and providers of legal information are now typically components of larger enterprises, involved not only in legal publishing, but in selling other kinds of information and goods of other kinds.⁴⁶ For the parent organizations, legal information is likely to be seen as a commodity, like other information, and they are likely to be less dedicated to the interests of lawyers and other consumers of legal information than were the specialized publishers of the past. While the major players compete for dominance in the networked legal information marketplace, the Internet has also lowered the costs of entry into that potentially profitable market for other electronic publishers. Many primary source legal materials are in the public domain and readily available for repackaging into new services and dissemination via the Internet. As a result, legal information with various levels of quality and value-added services is available on the Internet not only from the now "traditional" computer-assisted legal information vendors, LexisNexis and Westlaw, but from other

made and began to see the existing categories as inevitable... ." Berring, "Collapse of the Structure," *supra* note 30 at 23.

⁴³ Berring, "World of Thinkable Thoughts," *supra* note 36 at 312.

⁴⁴ Berring, "Search for Cognitive Authority," *supra* note 33 at 1691.

⁴⁵ See, e.g., Carol M. Bast & Ransford C. Pyle, "Legal Research in the Computer Age: A Paradigm Shift?" 93 *Law Library Journal* 285 (2001); F. Allan Hanson, "From Key Numbers to Keywords: How Automation Has Transformed the Law," 94 *Law Library Journal* 563 (2002).

⁴⁶ See Schauer & Wise, *supra* note 38 at 511-512.

commercial publishers, as well as from courts and legislatures, and from law libraries, law firms, and other non-commercial sources.

A second factor is that students enter law school with well-developed senses of their own information-seeking skills. Entering law students have spent all their lives using computers, are well-exposed to the Internet, and are used to relying on the Internet and general web search engine approaches to research. As a result, they look less to enter an established legal information universe than to shape legal information to their existing information world.⁴⁷ Their thoughts are not about the benefits of specialized tools (print or electronic) for legal research, but, because information seeking via the Internet is part of their daily lives, they expect to use familiar search engines governed by algorithms that are not limited to law, but are part of the greater information universe in which they work.⁴⁸

The results of three recent studies of information-seeking and uses of the Internet at U.S. universities and colleges sponsored by the Pew Foundation's Internet & American Life Project, the Digital Library Foundation (DLF), and OCLC are cited in the bibliography, along with commentary on these and other early attempts to gauge the effects of the Internet on the research habits of current undergraduate students. These efforts suggest that tomorrow's law students will seek convenient and readily available tools as they undertake research projects, and that, although print resources remain important,⁴⁹ they are likely to look first to the Internet to locate information rather than to library databases and similar resources. Although concerned about the quality of the information they retrieve through Internet searches, current undergraduates are confident in their research skills and remain

⁴⁷ See Berring, "World of Thinkable Thoughts," *supra* note 36, at 313.

⁴⁸ Search engine providers understand this desire: as stated in a recent article based on comments of Google's director of technology and an engineer in the Google Systems Research Lab: "Google's mission is to organize the world's information to make it universally accessible and useful." See Marydee Ojala, "Google Views the Present, Future: Interview with Craig Silverstein," *Information Today*, Jan. 2003, at 1, 1. This interest extends to "all the world's information, not just what is digitized." *Id.* at 50 (quoting Craig Silverstein).

⁴⁹ Amy Freidlander, *Dimensions and Use of the Scholarly Information Environment* 10-11 (2002). At least one librarian has suggested, however, that undergraduates arrive at college not only unfamiliar with searching the library catalog, but without knowledge of how books themselves work. See Barbara Fister, "Fear of Reference," *Chronicle of Higher Education*, June 14, 2002, at B20.

generally uninterested in learning the skills required to master specialized tools.⁵⁰ In addition, the studies indicate that today's students are also uninterested in understanding how their favorite search engines actually retrieve information from the web.⁵¹

A third factor is that more information beyond the traditional sources of law is considered relevant to the process of legal research. Throughout the twentieth century, U.S. courts have considered and cited increasing amounts of legislative history, social science data, scientific research, and other types of information in addition to cases and statutes, the traditional authorities cited in judicial opinions.⁵² This century-long trend intensified at the end of the century as more and more information became readily available at low costs to lawyers and judges via the Internet. Following Llewellyn, courts as well as lawyers are likely to use what is made available to them; as a wider variety of information becomes available, a greater variety will be cited as authority in published cases. The result is the phenomenon that Schauer and Wise have called the "delegalization of law,"⁵³ which contributes to the breakdown of the traditional "conceptual universe" of legal research and creates the need for researchers to consider more than the traditional sources of law.

The twenty-first century legal information environment is complex and its boundaries are porous. In this new richer information environment,

⁵⁰ In discussing his decision to forego publication of a new edition of *Finding the Law* (itself an abridged version of a much more substantial legal research text), Berring cited the opinions of legal writing instructors that research texts were "too long and too complicated" for first-year law students. Berring, "Research Guides, R.I.P.?", *supra* note 31, at 3.

⁵¹ A recently published interview with Google's director of technology reports that 95 percent of all Google queries are made as basic searches, rather than through the advanced search page, which is described as less natural to use. See Ojala, *supra* note 48, at 48.

⁵² For the early stages of this development, see generally John E. Johnson, *American Legal Culture, 1908-1940* (1980). For a telling comparison of what was cited by the Supreme Court in 1899-1900 and 1999, see Berring, "Search for Cognitive Authority," *supra* note 33, at 1683-1691.

⁵³ Schauer & Wise, *supra* note 34, at 515. Schauer and Wise's study of materials cited in the opinions of several courts showed increased citation of nonlegal material, which the authors suggest is a result of the "economic integration of the legal publishing industry" and "database integration," which has increased the amount and availability of "non-legal" information to lawyers and judges. *Id.* at 511-512.

sloppy research methodologies based on an understanding of the older, more limited, universe of legal information will no longer work, and effective research will require more systematic approaches.⁵⁴ Where do we look for a new understanding and new approaches to legal research training?

V. INFORMATION LITERACY

Outside of law, educators and others have been concerned about how best to educate computer users to use technology effectively in their work and elsewhere. Some discussions have focused on the idea of "computer literacy," emphasizing practical knowledge of how computers work and how to use specific applications and features. Others have advocated "computer fluency,"⁵⁵ criticizing computer literacy for its focus on transitory practical skills⁵⁶ and failure to consider the importance of understanding underlying concepts of information technology and their impacts on the processes of learning and work.⁵⁷ Proponents of computer fluency have themselves been criticized for placing too much emphasis on technology and too little on providing a framework for "understanding, evaluating, and using information."⁵⁸ Among the current responses to these problems in the U.S. and elsewhere,⁵⁹ are approaches based in the concept of "information literacy."

Although rooted in librarianship's bibliographic instruction tradition, information literacy became of greater interest in the 1980s as librarians and other educators recognized that more information was becoming available electronically outside the library's walls. There are numerous definitions of information literacy, but the American Library Association's 1989 definition

⁵⁴ Berring, "Collapse of the Structure," *supra* note 30, at 33.

⁵⁵ See *Being Fluent with Information Technology* 1999 (report of the Committee on Information Technology Literacy of the National Research Council).

⁵⁶ See Judith Boettcher, "Computer Literacy Spiral: What Do Students Need to Know?," *Syllabus*, Oct. 2000, at 42, 44 ("Twenty years ago, ... being computer literate meant knowing how to prepare punch cards.").

⁵⁷ See Herbert Lin, "Fluency with Information Technology," 17 *Government Information Quarterly* 69 (2000).

⁵⁸ See, e.g., "Information Literacy Competency Standards for Higher Education," 61 *C&RL News* 207, 208 (2000).

⁵⁹ *Library Trends* recently published a symposium of articles tracking information literacy developments in the U.S. and abroad. See Hannelore B. Rader, ed. "Teaching and Assessing Information Skills in the Twenty-First Century: A Global Perspective," 51 *Library Trends* 141-261 (2002).

is generally accepted as a standard and provides the basis for later attempts to define and implement the idea:

To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. ... Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand.⁶⁰

Advocates of information literacy emphasize the importance of critical thinking about information and the need to develop and maintain information skills for life-long learning. Information literacy programs acknowledge that students approach research with information-seeking skills and approaches different from those who would instruct them (even if their instructors are highly computer-literate).⁶¹ Perhaps most importantly, information literacy also acknowledges that researchers and other users of information not only now have ready access to more information than ever before, but that much of it is unfiltered and unvetted by instructors or librarians.

There is a large literature on information literacy. The bibliography provides references to several major information literacy documents: the 1989 ALA Presidential Committee report; the information literacy competency standards approved by the Association of College & Research Libraries in 2000; and a report on "Fluency with Information Technology" published by the National Research Council in 1999. It also includes citations and links to lists of skills and competencies promulgated by library associations and universities, as well as to clearinghouses of information on the topic.

⁶⁰ American Library Association. *Presidential Committee on Information Literacy. Final Report 1* (1989).

⁶¹ As an example, college students (and law students) are comfortable dealing with "non-linear, nonconsequential modes of perceiving, thinking, and investigating change" and consider the visual image on the computer screen to be their "primary means of communication." Lorie Roth, "Educating the Cut-and-Paste Generation," *Library Journal*, Nov. 1, 1999, at 42.

The bibliography also includes a highly selective list of articles, chosen to provide a taste of the issues raised in discussions about information literacy in the United States.⁶² In the U.S., information literacy programs have spawned debate over a number of topics including: whether librarians or faculty should teach information literacy; whether information literacy programs should be separate library-run operations or integrated into the curriculum; whether the programs should emphasize technology skills and competencies or skills in evaluating, applying and managing information; whether there is a core set of information literacy skills to be taught independently from the practices of individual disciplines and discourse communities; and whether the focus of information literacy instruction should be on broader questions of the role of information in society, rather than on developing skills and competencies of any sort.

The questions are relevant in the area of law as well. What can legal researchers and those who train them learn from information literacy or other approaches developed outside our own field?

VI. CONCLUSION: RESPONDING TO THE THREAT OF THE AVAILABLE

Some of the approaches emphasized by advocates of information literacy should be of benefit to those concerned with educating young lawyers to be effective in the practice of legal research. For one, it seems clear that effective legal researchers will continue to need to understand how the search tools they use actually work. This was true when the tools were primarily printed digests and indexes, and it remained true when legal researchers were

⁶² More comprehensive lists of citations to the extensive literature on information literacy (including some international references) are collected in several of the sources listed. See, e.g., Shirley J. Behrens, "A Conceptual Analysis and Historical Overview of Information Literacy," 55 *College and Research Libraries* 309 (1994); Ann Grafstein, "A Discipline-Based Approach to Information Literacy," 28 *Journal of Academic Librarianship* 197 (2002); James W. Marcum, "Rethinking Information Literacy," 72 *Library Quarterly* 1 (2002); Hannelore B. Rader, "Information Literacy 1973-2002: A Selected Literature Review," 51 *Law Trends* 242 (2002). Initial discussions of information literacy's possible applications in law in the U.S. and in Australia can be found in Richard A. Danner, "Focus on Legal Information Literacy," *National Law Journal*, July 13, 2000, at C1; Gail Boelens, "Legal Research Skills Education Based on the Principles of Information Literacy: A Re-evaluation for the 21st Century," 10 *Australian Law Librarian* 125 (2002).

first introduced to database searching by Lexis and Westlaw. The processes of information-seeking in the print and the traditional online environments differ significantly from those involved in using an Internet search engine, yet researchers need to have as much understanding of the workings of search engine black boxes as they do of Boolean connectors. As pointed out in a recent Council on Library and Information Resources report on future roles for research libraries, there are two important dimensions of information literacy.⁶³ In addition to the need for "a conceptual understanding of information and knowledge processes" – the current area of emphasis in the information literacy literature – it is also necessary for the literate information seeker to have the "skills to exploit technology to use information effectively." This latter dimension suggests that fluency with technology (practical skills accompanied with understanding of how the applications work) is important, and that legal information literacy should include an understanding of how search engine algorithms work and how search results are sorted, as well as the skills necessary for conducting searches.⁶⁴

In addition, legal information literacy will require an appreciation that much of the literature of the law is not readily accessible electronically. While nearly all of the primary sources and many of the finding tools that a legal researcher needs most often are readily available in electronic formats, many of the sources that a lawyer needs to read and study to understand the structures of legal knowledge are not. The recent studies of college students' information-seeking behaviors suggest that, despite their ease in locating information on the Internet, students are not fully satisfied with what they find.⁶⁵ Improving tools for locating print materials and integrating them with tools for locating electronic sources will help educate students to the availability of sources beyond those accessible through standard search

⁶³ Wendy Pratt Lougee, *Diffuse Libraries: Emergent Roles for the Research Library in the Digital Age* 17-18 (2002).

⁶⁴ See Lin, *supra* note 57, at 73 (fluency with information technology requires both contemporary skills (e.g., knowing how to use a search engine such as Google), and an understanding of what underpins the technology (e.g., how search engine algorithms work)).

⁶⁵ See *supra*, text accompanying notes 47-50.

engines⁶⁶; so will faculty and librarian's efforts to guide students toward other sources in their research.⁶⁷

Successful entry into the community of legal discourse will continue to require the development of professional knowledge and understanding beyond what can be found easily in an Internet search. In the end, legal research is a learning skill, and legal research instruction is about educating young lawyers to develop the broad range of information-seeking skills they will need to continue learning and developing professional knowledge and understanding. The conceptual universe of legal information may have broken down, but the purposes of legal research remain the same as they were in a less heterogeneous environment. Much of what Morris Cohen told us in 1969 remains as important and relevant today as it was then.

⁶⁶ See e.g., Mary E. Jackson, "The Advent of Portals," *Library Journal*, Sept. 15, 2002, at 36 (suggesting that libraries create portals supporting integrated searching of multiple resources); Mark Ludwig, "Breaking Through the Invisible Web," *netconnect*, Winter 2003, at 8 (on making library holdings accessible through web search engines). A related approach is RLG's RedLightGreen Project, which aims to develop an online catalog interface similar to a search engine, capable of delivering "useful responses to broad, unsophisticated keyword queries." See Mining the Catalog (Jan. 2003), available at <http://www.rlg.org/redlightgreen/mining.html>.

⁶⁷ See, e.g., Juris Divelko & Lisa Gottlieb, "Print Resources in an Electronic Age: A Vital Part of the Research Process for Undergraduate Students," 28 *Journal of Academic Librarianship* 381 (2002); Philip Davis, "Effect of the Web on Undergraduate Citation Behavior: Guiding Student Scholarship in a Networked Age," 3 *Portal* 41 (2003).