

Do We Still Need Books? A Selected Annotated Bibliography*

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To help researchers explore the complex issues surrounding the uneasy coexistence of print and electronic information, Mr. Howard and Ms. Rastorfer provide an annotated list of relevant books and articles published since 1995, as well as selected Internet sources.

¶1 To say that the world of librarianship is in the throes of a sea change is to be guilty of understatement. That being said, the purpose of this bibliography is to help us understand from where we have journeyed, where we might be going, what some of the problems are that we have encountered and may yet encounter along the way, and how to think about and, in some few instances, how to solve those problems.

¶2 In reviewing the many thoughtful and sometimes provocative articles that are included in this bibliography, it became clear to us that the number one issue on the minds of librarians and other information professionals is “who is minding the archives?” While there is little debate that electronic materials have earned their place in our law libraries, we are troubled by the complexities of the archival and, thus, future access issues. This concern underlies many of the debates over whether to e- or not to e-, and prevents us from coming to easy answers to the ubiquitous question—do we really need materials in both formats?

¶3 Although the topic of this bibliography is complex, the mechanics were straightforward: the time scope is limited to 1995 and after, and the indexes and databases searched are those usual to library and information science.¹ The entries are organized alphabetically by author within each category (books, articles,

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1. *Legal Resource Index, Index to Legal Periodicals, Information Science Abstracts*, Wilson Library Literature, ERIC, WorldCat, ArticleFirst, Libraries and Information Services Stories (LexisNexis), and Combined Law Reviews in both Westlaw and LexisNexis.

Internet resources), and accompanying each entry is a brief summary of the subject matter. Although we have sought to capture the most noteworthy pieces, this bibliography is not a comprehensive listing of all pertinent sources. It is current as of December 2004 (although a very limited selection of articles from early 2005 are also included).

¶4 The answer to whether we still need books is—yes. Barry Fast compares reading a book in print and reading a book online, and he reminds us of Lilly Tomlin's remarks about heaven: "I'm sure you can have sex there but I doubt if you can feel it."² In the same vein, Fast says books "will last because they fulfill some basic human needs, not only in what they convey but how they convey, how they feel, and how they fit into our lives. Like the wheel [with us from prehistoric times], books carry us from here to there, and like the Internet, they carry us sometimes with awe and mystery."³

Books

Building a National Strategy for Digital Preservation: Issues in Digital Media Archiving. Washington, D.C.: Council on Library and Information Resources; Library of Congress, 2002.

This study was commissioned by the National Digital Information Infrastructure and Preservation Program, whose mission is to develop a national strategy to collect, archive, and preserve the burgeoning amounts of digital content, especially materials that are created only in digital formats, for current and future generations. This is essential reading for any institution or group grappling with digital preservation issues. Written by leaders in various areas, the study covers preserving (a) digital periodicals, (b) e-books, (c) the World Wide Web, (d) digitally recorded sound, (e) digital television, and concludes with a section on digital video archives and mapping through metadata.

Ekman, Richard, and Richard E. Quandt, eds. *Technology and Scholarly Communication*. Berkeley, Calif.: University of California Press, 1999.

The twenty-five essays included in this compilation of papers presented at a conference held at Emory University in 1997 under the auspices of the Andrew W. Mellon Foundation focus on the impact of digital technology on scholarly communication, considering possible ways of facilitating this process and the costs associated with different methods. The papers deal with a number of topics, including technological issues such as digitizing techniques, evaluation of different electronic publishing ventures, examination of how electronic journals and books are actually used, and the exploration of possible models for electronic publishing in the future.

2. Barry Fast, *Books in the Digital World*, 23 LIBR. COLLECTIONS ACQUISITIONS & TECHNICAL SERVICES 163, 166 (1999).

3. *Id.* at 167.

Gorman, G. E., ed. *The Digital Factor in Library and Information Services*. International Yearbook of Library and Information Management, 2002/2003. Lanham, Md.: Scarecrow Press, 2002.

This work of collected essays considers how digital initiatives are affecting library services. Some of the topics covered include the positive and negative features of both digital and print formats, the economic dilemmas faced when acquiring digital resources, the future of the e-book, the impact of digitization on reference services, and the evaluation of digital collections.

Harum, Susan, and Michael Twidale, eds. *Successes and Failures of Digital Libraries*. Urbana-Champaign, Ill.: University of Illinois, 2000.

This collection of papers was presented at the 35th Annual Clinic on Library Applications of Data Processing, sponsored by the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign (UIUC) in 1998. The organizers encouraged presenters not only to talk about those aspects of their digital library projects that went well, but also to discuss problems that arose throughout development, in the belief that "if the development of better systems is to proceed optimally, it is just those problems that should be aired publicly" (p.1). Some of the projects or issues discussed include "Processing and Access Issues for Full-Text Journals," "Semantic Issues for Digital Libraries," "A Publisher's Perspective: More Successes Than Failures," "Lessons Learned from Full-Text Journals at OCLC," and "The Future of Annotations in a Digital (Paper) World," the last referring to the time-honored practice of readers and scholars writing comments in the margins of text.

Lee, Sul H., ed. *Electronic Resources and Collection Development*. Binghamton, N.Y.: Haworth Press, 2002. Copublished simultaneously as *Journal of Library Administration* 36, no. 3 (2002).

Sul Lee, Dean of the University Libraries at the University of Oklahoma, put together this volume of papers presented by national library leaders at the 2002 University of Oklahoma Libraries' annual conference, the theme of which was electronic resources and collection development in academic libraries. As Dean Lee points out, "[w]hile diverse in content and conclusions, all of these papers share common ground in that they offer new insights on how libraries are meeting the challenge of reshaping collection development programs with electronic resources" (p.3). Some notable entries: Keven M. Guthrie, JSTOR president, presents data JSTOR has collected about who uses e-journals, how they are used and what disciplines favor e-resources; and Anne Marie Casey, Central Michigan University's director for off-campus services, reviews the issues and challenges inherent in collection development for distance learning programs.

McGinnis, Suzan D., ed. *Electronic Collection Management*. Binghamton, N.Y.: Haworth Press, 2000. Copublished simultaneously as *Collection Management* 25, no. 1-2 (2000).

This is an interesting range of articles brought together by Suzan McGinnis, Assistant Head of Information Service for Liaison and Collection Development at Texas Tech University Libraries, Lubbock, Texas. The articles address some of the more talked about topics in electronic collection management, such as "Information Technology and Collection Development Departments in the

Academic Library: Striving to Reach a Common Understanding,” and the impetus for and status of SPARC, the Scholarly Publishing and Academic Resource Coalition.

Peek, Robin P., and Gregory B. Newby, eds. *Scholarly Publishing: The Electronic Frontier*. Cambridge, Mass.: MIT Press, 1996.

This work is not intended for the reader who wants practical day-to-day information on how to choose between electronic or print resources, but rather for someone interested in the long view of what it means for those in academia to flow closer to an electronic environment. Although written in 1996, the ruminations of leaders in this area, such as Clifford Lynch, are always interesting.

Scheiberg, Susan L., and Shelley Neville, eds. *Transforming Serials: The Revolution Continues*. Binghamton, N.Y.: Haworth Press, 2003. Copublished simultaneously as *The Serials Librarian* 44, nos. 1–2, 3–4 (2003).

This book is a collection of presentations and workshops from the North American Serials Interest Group’s 2002 Annual Conference. While some of the entries are not limited to electronic issues exclusively, enough are to make this volume a rich source of both information and anecdote. Some examples: “Everything You Always Wanted to Know About Electronic Journals But Were Afraid to Ask” and “Get Hip to E-Journals and Forget About the Print: Inciting a Faculty Revolution?”

Articles

Anderson, Iris W. “To Bind or Not to Bind: Pros and Cons of Maintaining Paper Periodicals in the Library’s Collection.” *Information Outlook* 3 (November 1999): 24–28.

Anderson considers the future of paper periodicals in libraries—whether paper collections should be maintained once electronic versions become available and, if so, how to provide access to these materials. She observes that there is not yet a critical mass of electronic periodicals on the market, and therefore libraries need to continue to acquire and maintain print journals. A list of some of the benefits and drawbacks of each format is included.

Ashcroft, Linda, and Stephanie McIvor. “Electronic Journals: Managing and Educating for a Changing Culture in Academic Libraries.” *Online Information Review* 25 (2001): 378–87.

This article examines some of the issues librarians face as they manage electronic journals. The authors conducted a literature review to identify issues related to electronic journals and then contacted librarians in North America and the United Kingdom to ascertain how these matters were addressed. They discuss such issues as the promotion of electronic journal usage, methods of evaluating levels of usage, cost of electronic journals and consortia purchasing, the relationship between libraries and electronic journal publishers or suppliers, and the changing skills required of librarians to manage electronic journals. They include survey results detailing the different ways libraries approach these issues.

Axelroth, Joan L. "The Paperless Society? Law Libraries Move Into the 21st Century." *Oregon State Bar Bulletin* 56 (June 1996): 9–14.

Axelroth discusses whether information in electronic form will supplant print format materials. She compares the advantages and disadvantages of print and electronic resources, discussing factors such as financial cost, ease of use, and reliability, and concludes that the ideal mix of media will depend on many factors, and that often the print medium is still the most efficient.

Barger, Coleen M. "Accessing the Law: On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials." *Journal of Appellate Practice and Process* 4 (2002): 417–49.

In this fascinating article, the author surveys and reports on a growing trend among federal appellate judges of citing to Internet sites in appellate opinions. This raises several issues, including but not limited to the use of an impermanent source of information in a permanent precedent. Barger describes instances of citing to Web sites not only to give a judicial gloss to a footnote, but also as authority for facts of which the judges are taking judicial notice, even when a print source exists.

Bartow, Ann. "Libraries in a Digital and Aggressively Copyrighted World: Retaining Patron Access Through Changing Technologies." *Ohio State Law Journal* 62 (2001): 821–34.

Bartow addresses the paradox that while the electronic revolution is extolled for its expansive distribution of information, it also poses a threat to access to information since content owners have the ability to control and restrict access to their informational wares in a manner not possible with the print medium. The goal of this article is to articulate the necessity of establishing for individual library patrons minimum standards of access to electronic resources consistent with "pre-Internet" real space access. The author advocates the benefits to library patrons of creating statutorily guaranteed rights to library use of copyrighted materials in any form.

Bast, Carol M., and Ransford C. Pyle. "Legal Research in the Computer Age: A Paradigm Shift?" *Law Library Journal* 93 (2001): 285–302.

The authors explore the effect that computer-assisted legal research (CALR) is having on legal thinking. They assert that the paradigm of legal research is changing from an approach based on the print digest to one centered on CALR. Bast and Pyle discuss the concept of a paradigm shift and examine the characteristics and use of digests. They also describe the CALR and print research process and speculate on how legal research is likely to change in the future.

Bauer, Kathleen. "Indexes as Tools for Measuring Usage of Print and Electronic Resources." *College & Research Libraries* 62 (2001): 36–42.

Bauer explains how Yale University's Cushing/Whitney Medical Library compiles statistics on the relative usage of print and electronic resources in that library. The library has created two indexes, the Electronic Usage Index and the Print Usage Index. The former is based on the frequency with which the library's e-textbooks and Ovid electronic journal full-text database are accessed, while the latter derives data from circulation and photocopier statistics. The indexes

showed that usage of electronic resources increased rapidly in 1998–1999 relative to the 1997–1998 data, while print usage declined.

Beck, Karen. "The Time Has Come for Electronic Cite-Checking." *AALL Spectrum* 4 (April 2000): 36, 26.

Beck chronicles the results of an informal poll taken of academic law librarians' efforts to wean law review editors from exclusive reliance on print sources for cite checking to reliable electronic resources when available and appropriate. She analyzes the friction between "tradition" on law reviews and the reality of readily available, reliable, online documentation against which to check citations. She concludes that resolution may await *Bluebook* intervention.

Berteaux, Susan S., and Peter Brueggeman. "Electronic Journal Timeliness: Comparison with Print." *The Serials Librarian* 41, no. 2 (2001): 101–18.

Berteaux and Brueggeman discuss the results of a survey by U.C. San Diego's Scripps Institution of Oceanography Library comparing the timeliness of electronic journal issues with their print counterparts. The study, conducted over two six-week periods in 1999 and 2000, found that electronic journal issues were usually available before the receipt of the print equivalent. In 2000 only 6% of the print issues were received prior to the availability of their online version, in comparison to 16% in 1999.

Boyce, Peter, et al. "How Electronic Journals Are Changing Patterns of Use." *The Serials Librarian* 46 (2004): 121–41.

Is widespread adoption of electronic journal collections having an impact on the reading patterns of scholars? This article reports on the results of surveys used to measure the effect electronic journals are having on the information-seeking and use patterns of faculty, students, and other researchers in science-related disciplines.

Bravy, Gary J., and K. Celeste Feather. "The Impact of Electronic Access on Basic Library Services: One Academic Law Library's Experience." *Law Library Journal* 93 (2001): 261–68.

The authors assess the impact of the Internet and digital products on use patterns at Georgetown University Law Library by evaluating traditional quantitative library data on photocopying, circulation checkout, and shelving from a ten-year period. Correlating fairly dramatic changes in these statistics in approximately the mid-1990s with various electronic and Internet developments, they suggest not only that data "strongly indicate law students at Georgetown are using electronic resources rather than printed materials as their primary source of information" (p.262), but also that traditional collection-use measurements no longer reflect a complete picture of the quantity or *quality* of the research activity within a library collection.

Brennan, Patricia B.M., et al. "What Does Electronic Full-Text Really Mean? A Comparison of Database Vendors and What They Deliver." *Reference Services Review* 27 (1999): 113–26.

Brennan explains the process used by the Higher Education Library Information Network Consortium to select a full-text database for acquisition by its member

institutions. She describes the criteria and guidelines used to compare four databases: Expanded Academic Index, Proquest Direct, EBSCOhost, and Wilson-Web2. Finally, she reports on the advantages and disadvantages of each service, including completeness of coverage relative to the print version of journals.

Brier, David J., and Vickery Kaye Lebbin. "Evaluating Title Coverage of Full-Text Periodical Databases." *Journal of Academic Librarianship* 25 (1999): 473–78.

The authors propose a methodology for comparing and evaluating the title coverage of full-text periodical databases and explain how this approach has been used at the University of Hawaii at Manoa. This methodology considers the quantity and quality of titles available through different databases, and the relative merit of different databases when considered in relation to a library's print journal collection and the information-seeking habits of undergraduate students.

Butler, Meredith A. "Issues and Challenges of Archiving and Storing Digital Information: Preserving the Past for Future Scholars." *Journal of Library Administration* 24, no. 4 (1997): 61–79.

While new electronic technologies and networks offer scholars enormous opportunities, they also make the research library's role of preserving recorded knowledge for future generations of scholars more complex and costly. This article discusses the unique issues raised by the digital format, new ways to think about digital preservation, and the various groups working on national preservation models for preserving our digital cultural heritage.

Canick, Simon. "Availability of Works Cited in Recent Law Review Articles on LEXIS, Westlaw, the Internet, and Other Databases." *Legal Reference Services Quarterly* 21, no. 2–3 (2002): 55–67.

Canick assesses the scope of coverage of various online databases by examining a group of law review articles to determine the proportion of cited resources that are easily located online. Searches were conducted in LexisNexis, Westlaw, the Internet, and several other databases for the full-text version of each source cited in seven randomly selected articles. Canick divides the citations into thirteen categories, such as "Legal Periodicals 1990–present," "Books," "Federal Cases," and "Foreign/International Law," and provides the relative availability of each. Of the 1984 citations searched, 77% were available online. Canick concludes by discussing several reasons why this percentage is likely to increase in the future.

Carson, Bryan M. "Do We Still Need Books for Legal Research?" *Against the Grain* 14, no. 5 (2002): 76–77.

This short article addresses the three myths of legal research in the computer-assisted age: everything is on the Web, everything is available on LexisNexis or Westlaw, and computer-assisted legal research is less expensive. Law librarians in all settings are confronted with these statements in one form or another. Carson provides useful information to educate the user about why these myths may not be true.

Chen, Frances L., et al. "Electronic Journal Access: How Does It Affect the Print Subscription Price?" *Bulletin of the Medical Library Association* 89 (2001): 363–71.

The impetus for this study stemmed from diminishing hopes that publishing in electronic form would be less expensive and that journal prices would actually decrease after converting from print to online. Contemplating the fact that there is no escape from “the relentless upward march of journal subscription prices” (p.364), the authors devised this study to examine whether print journal price increases varied according to the type of electronic access available. The author’s findings reveal, *inter alia*, that price increases for print journals were higher if a type of electronic access was offered. Additionally, aggregated collections currently represent the electronic option whose percentage price increase for print was lowest. The authors recommend continued research in this area.

Chen, Xiaotian. “Embargo, *Tasini*, and ‘Opted Out:’ How Many Journal Articles Are Missing from Full-Text Databases?” *Internet Reference Services Quarterly* 7, no. 4 (2002): 23–34.

Chen explores the completeness of several full-text databases from various perspectives. The article critiques the content available through five database aggregators—EBSCO, Gale, H. W. Wilson, LexisNexis, and ProQuest. It examines the number of embargoed (intentionally delayed) titles on these aggregators and how these services handle the embargo issue, the number of articles deleted because of the U.S. Supreme Court’s *Tasini* decision,⁴ and some important titles that are not available in any aggregator database. She concludes that the quality of aggregators’ full-text databases seems to have decreased, and that librarians should be cautious before canceling print subscriptions in favor of these resources.

Chiorazzi, Michael. “Books, Bytes, Bricks and Bodies: Thinking About Collection Use in Academic Law Libraries.” *Legal Reference Services Quarterly* 21, no. 2–3 (2002): 1–28.

In “*How Much of Your Print Collection Is Really on WESTLAW or LEXIS-NEXIS?*”⁵ Hazelton examined the question from the perspective of space occupied. Chiorazzi, building on Hazelton’s article, is concerned with collection use. He argues that “over 80% of the use of all legal materials is accounted for by the 20% of all legal materials that are available online” (p.1). The article examines the implications this may have when doing cost-benefit analyses in connection with library budgetary decisions.

Clareson, Tom. “Next Steps: Moving Forward on a National Plan.” *Law Library Journal* 96 (2004): 649–54.

This article is based on a paper presented at the conference “Preserving Legal Information for the 21st Century: Toward a National Agenda,” held at Georgetown University Law Center, March 6–8, 2003. Clareson, manager of education and planning for OCLC Digital Collections and Preservation Services, gets to the heart of the “book versus technology” debate: “The reality is that our users want to receive information electronically. In order to serve them, we must commit to digital access. The question is: are there enough resources for us to

4. *New York Times Co. v. Tasini*, 533 U.S. 483 (2001).

5. Penny Hazelton, *How Much of Your Print Collection Is Really on WESTLAW or LEXIS-NEXIS?* *LEGAL REFERENCE SERVICES Q.*, 1999, no. 1, at 3 (*see infra* p.269 for annotation).

retain the original and a microfilm preservation copy along with a digital copy?" (p.650). This short article is interesting for, among other things, its attempt to bring down to the individual law library level the need to make preservation a part of every library's institutional mission.

Connaway, Lynn Silipigni, and Stephen R. Lawrence. "Comparing Library Resource Allocations for the Paper and the Digital Library." *D-Lib Magazine* 9, no. 12 (2003), at <http://www.dlib.org/dlib/december03/connaway/12connaway.html>.

The authors perceived a lack of literature explaining how to examine and compare the costs associated with providing library resources and services in the print book and electronic book formats. This study is a preliminary attempt to fill this gap by systematically evaluating the costs of both types of libraries in terms of labor, space, material, equipment allocation, cataloguing, maintenance, circulation, warehousing, and deselection of print books and e-books.

Cox, John. "Value for Money in Electronic Journals: A Survey of the Early Evidence and Some Preliminary Conclusions." *Serials Review* 29, no. 2 (2003): 83–88.

Cox investigates the proposition that electronic journals provide enhanced value for their costs when compared to their print counterparts. He reviews the pricing policies of two different journal publishers (Emerald and the Institute of Physics Publishing) at the journal, article, and use levels. Based on his findings and a literature review, Cox concludes that electronic journals offer greater value relative to traditional print journals.

Danner, Richard A. "Electronic Publication of Legal Scholarship: New Issues and New Models." *Journal of Legal Education* 52 (2002): 347–64.

The author queries what effect a particular discipline's discourse habits have on its ability not only to adapt but also to thrive in an electronic environment. He discusses the development of the Web-based Legal Scholarship Network, as well as open archiving alternatives for law scholarship such as LEDA (Legal Education Document Archive), and concludes by considering whether initiatives such as LEDA "resolve some of the long-standing shortcomings of the law review system, while preserving the institutional benefits of traditionally school-based publication" (p.364).

Danner, Richard A. "Issues in the Preservation of Born-digital Scholarly Communications in Law." *Law Library Journal* 96 (2004): 591–604.

Danner considers the impact that born-digital information is having on scholarly communications, particularly in the legal field. He examines new forms of scholarly communications in law, especially working paper initiatives, and their repercussions. He also explores the many complicated issues that are related to the preservation of born-digital information.

Davis, Susan E. "Books Versus Bytes: Electronic Research Has Its Strengths and Weaknesses." *California Lawyer* 18 (July 1998): 51–52, 58.

Although dated, this short article still makes relevant points about when to go on online and when to search in print. Boalt Hall Librarian Kathleen Vanden Heuvel's inset comments on page 52 are especially interesting.

De Groote, Sandra L., and Josephine L. Dorsch. "Online Journals: Impact on Print Journal Usage." *Bulletin of the Medical Library Association* 89 (2001): 372–78.

The authors summarize the results of a journal-use study that sought to determine the impact of newly introduced online journals on the use of print journals and interlibrary loan at the Library of the Health Sciences-Peoria, a regional site of the University of Illinois at Chicago. One of the purposes of measuring journal use by both access methods was to inform collection development decisions with current user preferences. Although the results of the study showed that the advent of online journals decreased the use of print titles, including those titles available only in print, the authors believe that further research is needed into the impact of online journals and that it is too early to make decisions concerning the elimination of print journals. The article concludes with suggestions for further research in this crucial area.

Dilevko, Juris, and Lisa Gottlieb. "Print Sources in an Electronic Age: A Vital Part of the Research Process for Undergraduate Students." *Journal of Academic Librarianship* 28 (2002): 381–92.

Based on the results of a study done at the University of Toronto, this article contends that although undergraduates typically begin assignments and essays using online sources, they still value books and print journals because of the print sources' completeness, accuracy, and in-depth nature. The authors argue that perhaps present trends to cast academic libraries in a format that competes with Barnes & Noble and Starbucks miss the point that the really unique thing the library has to offer is print resources that can contribute to academic success.

Drewes, Jeanne, and Gloria Guzi. "To Bind or Not to Bind: Managing Electronic and Paper Serials in a Sea of Change." *The Serials Librarian* 40 (2001): 409–14.

This article evaluates the pros and cons of binding print journals or archiving e-journals with an eye to the ultimate decision of whether to cancel print subscriptions. It also makes the point that although an e-version may provide more access, it is still an open question as to whether there will be *continued* access.

Duff, Wendy M., and Joan M. Cherry. "Use of Historical Documents in a Digital World: Comparisons with Original Materials and Microfiche." *Information Research* 6, no.1 (2000), at <http://informationr.net/ir/6-1/paper86.html>.

Duff and Cherry provide the results of a user study comparing Early Canadiana Online, a digital collection of pre-1900 Canadiana material available through the Internet, with the same material in paper and microfiche formats. The study, which included a survey, focus group sessions, and server log analysis, evaluated use and user satisfaction across all three formats. While many people liked the paper format best, more than half of the respondents who had used all three formats felt the Web-based version would be most useful in their work.

Easton, Christa. "Doubly Bold—Replacing Print Journals with Electronic Versions." *Serials Review* 27, no. 3–4 (2001): 97–101.

Easton reviews several instances where institutions did in-depth studies before implementing programs to discontinue print subscriptions in favor of electronic. One of the overarching conclusions from these studies is that "libraries need to

be educated consumers of full-text databases, particularly if they consider replacing print subscriptions with database content" (p.99).

Edmonds, Edmund P., and Margaret Maes Axtmann. "A Law Library in the New Century: The Creation of the University of St. Thomas Law Library." *Legal Reference Services Quarterly* 21, no. 2-3 (2002): 177-88.

Edmonds and Axtmann explain the decision-making process used during the creation of a new law library at the University of St. Thomas School of Law. They explore their approach to balancing print and microform resources with electronic access, and provide a general discussion on how they chose the appropriate format when initially developing the collection.

Faerber, Charles N. "Book Versus Byte: The Prospects and Desirability of a Paperless Society." *John Marshall Journal of Computer and Information Law* 17 (1999): 797-831.

Faerber argues that the print medium has many advantages relative to digital materials, and that movement toward a paperless society is fraught with problems. He discusses the benefits of paper, observing that paper is surprisingly durable and has a reassuring physical immediacy not found with electronic documents. Faerber points out that digital hardware and software are more fragile than paper, and that they rapidly become obsolete due to technological changes, often resulting in data becoming inaccessible after a comparatively short time.

Fast, Barry. "Books in the Digital World." *Library Collections, Acquisitions, & Technical Services* 23 (1999): 163-67.

Fast, senior vice president at the Academic Book Center, presented this graceful paper at a conference in Crimea in 1998, but its musings are as fresh today as they were then. He notes that "[a]s the information universe expands, books, good old fashioned paper books, will become more important, not less. Just because a technology is old does not mean it is less valuable. Buggy whips disappeared because motors replaced horses, but our auto-buggies still use the ancient technology known as wheels" (p.166).

Flecker, Dale. "Preserving Scholarly E-Journals." *D-Lib Magazine* 7, no. 9 (2001), at <http://www.dlib.org/dlib/september01/flecker/09flecker.html>.

This fascinating article is based on the author's premise that for "research libraries, the long-term preservation of digital collections may well be *the* most important issue. . . . Keeping digital resources accessible for use by future generations will require conscious effort and continual investment." The article discusses one such conscious effort, an initiative spearheaded by the Council on Library and Information Resources and funded by the Andrew W. Mellon Foundation, to collaboratively formulate underlying assumptions for e-journal archiving guidelines (i.e., time frames, licensing, and redundancy issues). It also covers some of the difficult issues this project has thus far raised ("dark" archives, access-triggering events, content choices).

Frazer, Stuart L., and Pamela D. Morgan. "Electronic-for-Print Journal Substitutions: A Case Study." *Serials Review* 25, no. 2 (1999): 1-7.

This case study details the approach used by the Collection Development Council (CDC) of Old Dominion University Library to evaluate the feasibility of replacing

print journal subscriptions with their full-text electronic counterparts. Would the electronic versions be adequate replacements, and would such substitutions save money? The article explains the criteria developed by the CDC and the role the faculty played in the substitution process.

Gandhi, Subash. "E-Books—The Future of Reading and Ultimate Book Publishing." *Journal of Educational Technology Systems* 29 (2000–2001): 49–66.

Gandhi provides an introduction to electronic books. He explains their basic characteristics, describes four models of e-book readers, and discusses the advantages and disadvantages of e-books compared to their print counterparts. Gandhi also reviews a number of e-book publishing ventures and concludes by speculating about the future of the e-book.

Germain, Claire M. "Digital Legal Information: Ensuring Access to the 'Official' Word of the Law." *Cornell Law Forum* 26 (July 1999): 11–14.

Germain discusses concerns related to the increasing availability and reliance on digital versions of legal documents. While there are advantages to the use of electronic materials, there are also problems arising with digital legal information, including rapid obsolescence due to changes in hardware and software technology, text authenticity issues inherent to the electronic medium, and the lack of a plan to archive digital legal information to ensure its long-term accessibility. Germain examines these issues and considers some potential solutions.

Germain, Claire M. "Web Mirror Sites: Creating the Research Library of the Future, and More. . . ." *Legal Reference Services Quarterly* 21, no. 2–3 (2002): 87–104.

Germain examines a possible role for libraries in ensuring the preservation of primary legal information available through the Internet. She discusses some of the difficulties faced when trying to maintain long-term access to digital legal information, with particular focus on the risk of content being lost due to changing or disappearing Web sites. Germain offers a possible solution to this problem: the creation of Web mirror sites. Through partnerships with the issuing governments and organizations, databases of official information currently on the Web can be loaded and maintained on local servers, ensuring their accessibility and preservation far into the future. She describes Cornell Law Library's experience maintaining two mirror sites—those of the International Court of Justice and the International Labor Organization. Germain proposes that law libraries collaborate in the establishment of mirror sites, with each participating library responsible for archiving and making publicly available a portion of the official primary legal information on the Internet.

Granger, Stewart. "Emulation as a Digital Preservation Strategy." *D-Lib Magazine* 6, no. 10 (2000), at <http://www.dlib.org/dlib/october00/granger/10granger.html>.

The author discusses "emulation" as a preservation strategy. Emulation is defined as the ability to access or run original data or software on a new or current platform by running software that "emulates" the original platform. Emulation as a strategy preserves the object's look and feel, which some believe should be an essential goal of any digital preservation project. The author reviews at length the theory on emulation posited by Jeff Rothenberg, its staunchest proponent, taking into consideration some of emulation's strongest critics as well.

Guthrie, Kevin M. "Challenges and Opportunities Presented by Archiving in the Electronic Era." *Portal: Libraries and the Academy* 1 (2001): 121–28.

Guthrie explores the challenges associated with electronic archiving and identifies principles that must be addressed to maintain reliable long-term access to electronic content. Guthrie, the president of JSTOR, discusses JSTOR's archiving experience and some of the lessons that were learned. He observes that decisions must be made in five broad areas when establishing an archive: technology, backup and preservation, relationships with content owners, relationships with content users, and economic stability. He also argues that the discussion about archiving should focus less on the method used and more on having the proper organizations take on the responsibility.

Haigh, Richard. "What Shall I Wear to the Computer Revolution? Some Thoughts on Electronic Researching in Law." *Law Library Journal* 89 (1997): 245–64.

Haigh contends that shortcomings inherent in the computer limit the degree to which technology can improve the quality of legal work. He compares electronic research with the use of print resources, using scenes from Umberto Eco's *The Name of the Rose*⁶ as catalysts for his analysis. Haigh concludes that in many instances print resources may be preferable.

Hawbaker, A. Craig, and Cynthia K. Wagner. "Periodical Ownership Versus Fulltext Online Access: A Cost-Benefit Analysis." *Journal of Academic Librarianship* 22 (1996): 105–09.

This article describes a study conducted by the University of the Pacific in 1995 comparing the relative cost of its print periodical subscriptions to titles provided in full-text through IAC's Business ASAP. The study found that purchasing access to Business ASAP while simultaneously canceling those print subscriptions contained in the database would result in access to more than twice the number of titles for only a 15% increase in expenditures. Hawbaker and Wagner also discuss the increased demand for full-text electronic resources and the potential savings and risks associated with relying on electronic materials as an alternative to print subscriptions.

Hazelton, Penny A. "How Much of Your Print Collection Is Really on WESTLAW or LEXIS-NEXIS?" *Legal Reference Services Quarterly* 18, no. 1 (1999): 3–22.

Hazelton's well-known study, done to answer her Law School Planning Committee's question—do we really need to dedicate all that space to the law library?—concluded that 13% of the University of Washington Law Library's volumes were on Westlaw and LexisNexis. She analyzes such questions as how fast will your print collection grow in the future? What role do microforms play in the future of law libraries? If Westlaw and LexisNexis services were available to all library users (including the public), would the law library need any print resources? This article should be read in conjunction with Gordon Russell's response.⁷

6. UMBERTO ECO, *THE NAME OF THE ROSE* (William Weaver trans., Picador 1984) (1983).

7. Gordon Russell, *Re-Engineering the Law Library Resources Today for Tomorrow's Users: A Response to "How Much of Your Print Collection Is Really on WESTLAW or LEXIS-NEXIS?"* LEGAL REFERENCE SERVICES Q. 2002, no. 2–3, at 29 (*see infra* p.279 for annotation).

Henebry, Carolyn, et al. "Before You Cancel the Paper, Beware: All Electronic Journals in 2001 Are NOT Created Equal." *The Serials Librarian* 42 (2002): 267–73.

As a prelude to eliminating duplicate formats in its journal collection, the University of Texas at Dallas did a title-by-title comparison of approximately three hundred to four hundred journals. The authors found many electronic journals differ significantly from their print counterparts. Discrepancies included timeliness, color and graphics, content, and service issues. Despite these discrepancies, this evaluation permitted the library to cancel approximately seventy print subscriptions. The methodology for conducting this type of an evaluation is described.

Hibbitts, Bernard. "From Law Reviews to Knowledge Networks: Legal Scholarship in the Age of Cyberspace." *Serials Review* 25, no. 1 (1999): 1–9.

Hibbitts argues that other than the obvious conveniences, electronic delivery of law reviews via either Westlaw or LexisNexis has done nothing to "fundamentally challenge or improve the present scheme of scholarly communication in law" (p.3). Purely electronic legal journals stand a far better chance of correcting the perceived problems of student-run law reviews. This sanguine view of electronic journals is quickly supplanted by his more substantial question: "whether the review or journal format (originally print, now electronic) is the best format for disseminating scholarship of any sort in the age of cyberspace" (p.4). Hibbitts elaborates on the idea of "disintermediated electronic publication" (p.5) outside the formal journal context.

Howell, Alan. "Perfect One Day—Digital the Next: Challenges in Preserving Digital Information." *Australian Academic & Research Libraries* 31 (2000): 121–41.

Howell represents a second Australian perspective,⁸ warning that failure to devise effective digital preservation strategies runs the risk of losing essential aspects of our collective past. He offers a clear recitation of the differences between preserving paper as opposed to digital forms, and the specific issues faced in the effort to preserve digital matter. He also includes twelve recommendations for preserving digital information.

Jaguszewski, Janice M., and Laura K. Probst. "The Impact of Electronic Resources on Serial Cancellations and Remote Storage Decisions in Academic Research Libraries." *Library Trends* 48 (2000): 799–820.

The authors explore the impact that electronic resources have on two issues: serial cancellation and the placement of print materials in remote storage. They identify suggested criteria for these decisions and discuss the unique issues that arise due to the complex nature of electronic resources.

Kalyan, Sulekha. "Non-Renewal of Print Journal Subscriptions That Duplicate Titles in Selected Electronic Databases: A Case Study." *Library Collections, Acquisitions, & Technical Services* 26 (2002): 409–21.

8. Cf. Colin Webb, *Towards a Preserved National Collection of Selected Australian Digital Publications*, 6 NEW REV. ACAD. LIBRARIANSHIP 179 (2000) (*see infra* p.281 for annotation).

This article makes an interesting companion to the Carolyn Henebry article described earlier.⁹ Kalyan describes Seton Hall University Library's approach to the examination of overlap between its print and electronic subscriptions, addressing the fact that the challenge facing librarians is to develop strategies that provide guidance in the transition from print to information resources in newer formats. Kalyan considers whether the switch to e-journals saves money, and if so, how much. This is a good review of recent contributions to this area of inquiry.

Kim, Hak Joon. "The Transition from Paper to Electronic Journals: Key Factors That Affect Scholars' Acceptance of Electronic Journals." *The Serials Librarian* 41, no. 1 (2001): 31–64.

Kim investigates the factors that affect scholars' acceptance of journals published solely in electronic form, and examines the feasibility of scholarly electronic journals in terms of their economic, sociological, technological, and cognitive aspects. Kim concludes that while most factors support a successful transition from print to electronic journals, their lack of credibility is a major stumbling block that currently limits acceptance.

King, Donald W., et al. "Library Economic Metrics: Examples of the Comparison of Electronic and Print Journal Collections and Collection Services." *Library Trends* 51 (2003): 376–400.

This article explains an economic model that librarians can use to analyze questions faced everyday concerning print and electronic resource choices, such as reliance on one or the other format, single article demand for certain journals, and whether one should deal with intermediaries or directly with publishers. "These complex decisions require a sound economic underpinning as well as good judgment in applying economic information metrics" (p.377), and this article provides such an underpinning.

Klinefelter, Anne. "Copyright and Electronic Library Resources: An Overview of How the Law Is Affecting Traditional Library Services." *Legal Reference Services Quarterly* 19, no. 3–4 (2001): 175–93.

Klinefelter explores how the law governing electronic resources is affecting traditional library services. She provides an overview of copyright, licensing, and other information laws that apply to digital resources and explains their impact on the following areas of library operations: acquisitions and collection development; gifts, exchanges, and sales; archiving and preservation; circulation; interlibrary loan and document delivery; reserve services; and research, reference, and instructional services.

Kranch, Douglas A. "Beyond Migration: Preserving Electronic Documents with Digital Tablets." *Information Technology and Libraries* 17 (1998): 138–48.

Kranch discusses different approaches to the preservation of digital documents and their shortcomings, particularly focusing on the currently favored technique

9. Carolyn Henebry et al., *Before You Cancel the Paper, Beware: All Electronic Journals in 2001 Are NOT Created Equal*, 42 SERIALS LIBR. 267 (2002) (see *supra* p.270 for annotation).

of migration, which is used to prevent data loss from technological obsolescence. He proposes an alternative approach to the preservation of electronic documents—the use of digital preservation tablets. Digital tablets would include not only the documents themselves but also the hardware and software necessary to ensure that the documents continue to be accessible. Kranch explains how this might be accomplished and calls for increased research efforts in this area.

LeFurgy, William G. “Levels of Service for Digital Repositories.” *D-Lib Magazine* 8, no. 5 (2002), at <http://www.dlib.org/dlib/may02/lefurgy/05lefurgy.html>.

The premise of this article is that not all digital materials have equal potential for preservation due to variations in their construction and organization and, consequently, digital repositories should be designed with this in mind. Materials lacking the characteristics for optimal preservation can still be included in digital collections, but accessibility will be more limited. LeFurgy discusses the conditions governing the persistence of digital materials and suggests that digital repositories should adopt a strategy of providing different levels of service for different parts of their collections based on a document’s characteristics.

Liew, Chern Li, et al. “A Study of Graduate Student End-Users’ Use and Perception of Electronic Journals.” *Online Information Review* 24 (2000): 302–15.

This article considers the future of electronic journals by examining graduate students’ expectations and perceptions of e-journals relative to their print counterparts. It presents the results of a questionnaire administered to eighty-three graduate students inquiring about their usage of print and online journals, their preferred medium, and their expectations and concerns with regard to the future of electronic journals. The data showed a strong acceptance of electronic journals, although there were some reservations.

Littman, Justin. “A Preliminary Comparison of Electronic Book and Print Book Usage in Colorado.” *Colorado Libraries* 28 (Fall 2002): 39–41.

Littman provides the results of a study comparing print and electronic book usage in Colorado academic libraries. The study examined data from nine academic institutions using statistics reported in Colorado’s Academic Library Survey and information furnished by netLibrary. The results show that print and electronic book usage were comparable on a per volume basis in six of these institutions, although total circulation levels per student were much higher for print resources.

Lombardo, Shawn V., and Cynthia E. Miree. “Caught in the Web: The Impact of Library Instruction on Business Students’ Perceptions and Use of Print and Online Resources.” *College & Research Libraries* 64 (2003): 6–22.

This study measures the impact of library instruction on business students’ perceptions and use of three formats for research: the Web, online bibliographic and full-text databases, and print materials. The participants were ninety undergraduate students enrolled in a business course who were provided instruction on the benefits and problems of each format and on the importance of using a variety of resources when engaging in research. Using questionnaires to assess the impact of the research instruction, the study found that it resulted in greater acceptance and use of print resources.

Luther, Judy. "White Paper on Electronic Journal Usage Statistics." *The Serials Librarian* 41, no. 2 (2001): 119–48.

Luther reflects on the conundrum that librarians rely on usage statistics to make all kinds of acquisition-related decisions, but that with e-journals there is "no agreement on how to produce data that can be compared and analyzed" (p.119). In a study commissioned by the Council on Library and Information Resources, she reviews how and what statistics are currently collected and identifies the issues that must be resolved before librarians and publishers feel comfortable with e-journal usage data and confident about using it.

Lynch, Clifford. "Preserving Digital Documents: Choices, Approaches, and Standards." *Law Library Journal* 96 (2004): 609–17.

Lynch provides thoughtful examination of issues concerning technology and standards as they relate to the preservation of born-digital objects—materials that begin their existence in digital form. He observes that these materials raise unique preservation issues because, unlike traditional print resources, such documents interact with users in complicated ways. Lynch discusses two current preservation strategies for born-digital objects, migration and emulation, and considers the state of digital preservation standards.

Marcum, Deanna, and Amy Friedlander. "Keepers of the Crumbling Culture." *D-Lib Magazine* 9, no. 5 (2003), at <http://www.dlib.org/dlib/may03/friedlander/05friedlander.html>.

The authors write that part of the problem we face now about preserving electronic information is our uncertainty regarding who is supposed to do it. While the Library of Congress serves as a national library in some respects, it has no "universal preservation charge for the nation." "There is not now, nor has there ever been, a national library . . . that takes responsibility for the preservation of American publications overall." While not particularly useful in terms of offering solutions, the article has an interesting narrative on the history of libraries' preservation efforts throughout the nineteenth and twentieth centuries.

Marcum, Deanna B. "Landscape of Digital Archiving." *Law Library Journal* 96 (2004): 605–08.

Marcum provides brief descriptions of some important ongoing digital archiving projects, summarizing the activities of a variety of programs and initiatives arising from the federal government, nonprofit organizations, universities, and international groups. She concludes by discussing recent attempts at collaboration between publishers and librarians, and observes that digital preservation problems will only be solved through such cooperation.

McDade, Travis, and Phill Johnson. "Print *Shepard's* Is Obsolete: Coming to Terms with What You Already Know." *Perspectives: Teaching Legal Research and Writing* 12 (2004): 160–62.

McDade and Johnson argue that the print version of *Shepard's Citations* is obsolete and should no longer be taught in law school legal research classes. Instead, citator instruction should focus on *KeyCite* and the electronic version of *Shepard's*. They contend that electronic citators have several major advantages over their print counterpart—they are more comprehensive, efficient, accurate, and timely.

Meyer, Patrick. "Think Before You Type: Observations of an Online Researcher." *Perspectives: Teaching Legal Research and Writing* 13 (2004): 19–23.

The prevailing view among law students is that online research resources are much more efficient than print tools, so why bother learning how to research in the books? This article provides valuable practical suggestions on how to teach students that electronic resources do have shortcomings and that there are benefits to using print resources in certain situations. Meyer observes that there are limitations inherent to online legal research—for example, not everything is online, electronic resources have reduced browsing capabilities relative to print materials, and online research tends to adversely affect research strategies by diminishing the use of analogical reasoning. He provides specific examples of how to illustrate the relative merits of each format through classroom exercises and assignments.

Milles James G., "Out of the Jungle: How to Get beyond the Digital v. Print Debate—and Deal with the Fact That Digital Won." *AALL Spectrum* 9 (Feb. 2005): 10–11, 16.

The author, associate dean and director of the law library at the University of Buffalo Law School, The State University of New York, heralds the victory of digital sources over print. The heart of this article, however, addresses whether print resources should continue to be given the primacy they now receive in most legal research classes, and also questions the timing of required legal research courses. Milles takes aim at law librarianship's alleged strong preference for book research, and exhorts legal research teachers everywhere to examine closely held premises, such as the contention that print resources are more effective for certain types of research, and learning print first enables students to research online more effectively. His bottom line: "In teaching legal research, we ought to favor electronic resources, unless there is a demonstrable and significant benefit to using print. (p.11).

Montgomery, Carol Hansen. "Measuring the Impact of an Electronic Journal Collection on Library Costs." *D-Lib Magazine* 6, no. 10 (2000), at <http://www.dlib.org/dlib/october00/montgomery/10montgomery.html>.

In 1998, the Hagerty Library at Drexel University made migration from print to electronic journals a key component of its strategic plan, and by 2000 the periodical collection consisted of 800 print subscriptions and 5000 electronic journals. This article describes the changes in the library's operational costs as a result of this shift, including costs associated with shifts in staffing, resources, materials, space, and equipment.

Montgomery, Carol Hansen, and Donald W. King. "Comparing Library and User Related Costs of Print and Electronic Journal Collections." *D-Lib Magazine* 8, no. 10 (2002), at <http://www.dlib.org/dlib/october02/montgomery10montgomery.html>.

This article reports on the outcome of a study exploring the impact on staff and costs resulting from a shift from print to electronic journals by Drexel University's Hagerty Library. The study was designed to capture all costs associated with the shift. The article provides a summary of the various costs for each format broken down into categories such as space, systems, supplies and services, and staff. The

results suggest that electronic journals are more cost-effective than print on a per use basis. A readership survey was also conducted which indicated that there was broad user acceptance of electronic journals.

Morse, David H., and William A. Clintworth. "Comparing Patterns of Print and Electronic Journal Use in an Academic Health Science Library." *Issues in Science & Technology Librarianship*, no. 28 (2000), at <http://www.istl.org/00-fall/refereed.html>.

The authors conducted a study in an academic biomedical library setting, having in mind that "while libraries struggle to balance competition between print and electronic journal collections, librarians have a pressing need to know how these collections are used in order to maximize their investments in acquisitions funds and staff time." The study sought to determine how fast the transition to electronic journals is occurring and the extent to which patterns of journal use in electronic form duplicate the patterns of use of their print counterparts. In addition to answering these questions, the authors found there was an "overwhelming preference . . . for electronic access when it is available . . . especially when [the user] can link directly from databases to the full-text of the articles indexed."

Most, Marguerite. "Electronic Journals in the Academic Law Library—Law Reviews and Beyond." *Legal Reference Services Quarterly* 21, no. 4 (2002): 189–256.

A seminal article that gracefully serves as "an introduction to electronic journals in the academic law library and to the questions librarians face and must respond to as they provide timely access to legal scholarship in an increasingly electronic environment" (p.189). Issues such as licensing, use statistics, hidden costs of e-journals, counting e-journals, reference linking, user education, and the preservation of digital formats are covered. The author also peers into the future to consider whether the "serials crisis" and the "scholarly communication crisis" experienced in libraries in other disciplines like medicine and the social sciences have any implication for the academic law library environment (p.189). This is one of the most worthwhile articles to read from this list.

Murray, Jennifer S. "Print Citator Instruction: What to Do?" *Law Library Journal* 95 (2003): 139–42.

Murray considers whether print citator instruction is still necessary due to the ascendancy of the online citator. She discusses the University of Southern California Law School's decision to continue to provide print citator training in its first-year legal research program and how it reached that conclusion.¹⁰ The article provides a summary of the responses to a query posted by Murray to the AALL Academic Law Libraries Special Interest Section electronic discussion list, in which she inquired as to the status of print citator instruction in other schools.

Neacsu, E. Dana. "Legal Scholarship and Digital Publishing: Has Anything Changed in the Way We Do Legal Research?" *Legal Reference Services Quarterly* 21, no 2–3 (2002): 105–22.

"Legal scholarship depends on the existence and reliability of accessible materials to verify the accuracy and validity of the ideas advanced in the source"

10. USC has since moved to eliminate print citator training in its first-year legal research program.

(p.105). The growth of digital publishing threatens “the established reliability of source materials” (p.105). The author’s examination “of 20 law review articles, all containing at least four citations to the Internet, found that 12 of the 20 contained an online source which could no longer be accessed *within a year of the online source’s publication*” (emphasis added) (pp.105–06). Thus, although there is a general trend to celebrate digital publishing, the author concludes that the advent of this phenomenon may have introduced an unwelcome higher degree of risk to the legal scholarship enterprise.

Neri, Martha. “Putting the Cart Before the Horse: Understanding the Pros and Cons of Digital Preservation.” *Library & Archival Security* 17, no. 2 (2001): 59–64.

Neri offers an overview of the digital preservation process and the dilemmas posed by the various possible methods. She briefly explains some of the problems resulting from different technical strategies, including refreshing, migration, and emulation, and includes a list of the steps involved in digital preservation.

Okerson, Ann. “Are We There Yet? Online E-Resources Ten Years After.” *Library Trends* 48 (2000): 671–93.

Okerson provides an interesting review of past trends in publishing on the Internet—“Internet History”—designed to keep librarians, as well as others, from losing their bearings. She concludes with predictions in these areas through 2005.

Potter, Theodore A. “A New Twist on an Old Plot: Legal Research Is a Strategy, Not a Format.” *Law Library Journal* 92 (2000): 287–94.

Potter argues that legal research training methods should be adapted to reflect the reality that most students will default to using computers whenever possible. He contends that research skills will improve by providing computer database instruction first, with print-based techniques taught later when appropriate. Potter offers suggestions on how to teach legal research and emphasizes that the focus should not be on format, but on good research strategy.

“Preserving Legal Information for the Twenty-first Century: Toward a National Agenda.” *Law Library Journal* 96 (2004): 655–68.

This is the final report issued by the organizers of the “Preserving Legal Information for the 21st Century: Toward a National Agenda” conference held at Georgetown University Law Center, March 6–8, 2003. The conference brought together law librarians with preservation specialists to discuss preserving both print and electronic legal information. One of the exciting consequences of the conference was the formation of the Legal Information Preservation Alliance. In addition to reviewing what went on at the conference, this report describes the mission and the agenda of this important new group working “to ensure the preservation of the legal information and materials vital to the study, practice, and creation of American law” (p.656).

Preston, Laurie A., et al. “‘Full-Text’ Access Evaluation: Are We Getting the Real Thing?” *The Serials Librarian* 34 (1998): 301–05.

This article presents the highlights of a workshop that examined the differences between selected print journals and their full-text electronic equivalent. Seventy-

five journals from several disciplines were compared to the online version available through Information Access Corporation's Expanded Academic Index ASAP. The study found that most of the electronic titles were missing some content available in the print versions. A model for assessing the value of full-text electronic subscriptions was also provided.

Quandt, Richard E. "Scholarly Materials: Paper or Digital?" *Library Trends* 51 (2003): 349–75.

Quandt takes aim at the prediction that the "entire editorial process, particularly for scholarly journals, will be re-engineered, so that journals will become available on the World Wide Web for a fraction of the cost of paper journals or even for free" (p.371). Noting that this is nowhere near realization, the bulk of the article explores the reasons for this lagging and concludes that the prediction of the paper journals' demise is vastly exaggerated. Nor does the author believe that the "increasing dominance of electronic publications will ease the economic plight of libraries in the short run" (p.371).

Randolph, Susan E. "Are E-Books in Your Future?" *Information Outlook* 5 (February 2001): 22–28.

Randolph explores the benefits and possible uses of electronic books and considers whether they have a future in libraries. She observes that e-book technology provides the reader with greater information access capabilities than is possible with print books. The article also examines the various types of e-book technology and the different vendors in this area, and discusses the experiences of several public libraries with assorted forms of e-books.

Reach, Catherine Sanders, et al. "Feasibility and Viability of the Digital Library in a Private Law Firm." *Law Library Journal* 95 (2003): 369–81.

The authors, all associated with the American Bar Association, report the results of research undertaken with the support, in part, of an AALL/Aspen Publishers grant. The focus of their research was to study the feasibility and viability of a digital library in the private law firm setting. After surveying law librarians, lawyers, and legal publishers, the authors suggest that while there are many articulated barriers to the digital library, "[s]ome of these barriers may be more of a perception than a reality" (p.380) and librarians "must be poised to take new roles in the law firm to provide leadership in a digital landscape" (p.381).

Reich, Victoria A. "Lots of Copies Keep Stuff Safe as a Cooperative Archiving Solution for E-Journals." *Issues in Science & Technology Librarianship*, no. 36 (2002), at <http://www.istl.org/02-fall/article1.html>.

Reich describes the LOCKSS Program (Lots of Copies Keep Stuff Safe), whose mission is to "build tools and provide support to research libraries so they can easily and affordably create, preserve, and archive local electronic collections." This program is based on the premise that it is in society's best interest for libraries to own rather than lease electronic information, and thus libraries would retain their traditional custodial role for scholarly information. The LOCKSS Program also provides support to publishers so they can, without risk to their business model, distribute e-journals to libraries and relinquish responsibility to provide perpetual access. The program is soliciting library and publisher participation.

Rowse, Mark. "The Hybrid Environment: Electronic-Only Versus Print Retention." *Against the Grain* 15, no. 2 (2003): 24–28.

Rowse offers an overview of the various factors that have a direct impact on the ratio of print to electronic resources in libraries. Among the topics he explores are the effect of financial pressures and changing purchasing models on acquisitions, the role of collaborative networked environments in resource sharing and its impact on the library as a physical space, new publishing models and the increase in born-digital information, and the changing expectations and preferences of library users.

Rumsey, Mary. "Runaway Train: Problems of Permanence, Accessibility, and Stability in the Use of Web Sources in Law Review Citations." *Law Library Journal* 94 (2002): 27–39.

This article addresses the implications and some potential amelioration of scholarly legal work relying on nonprint sources, that is, Web sites, for corroboration. Rumsey focuses on three aspects of this potential problem: permanence, accessibility, and content stability. As Richard Leiter has recently said, "As librarians, we are used to finding material and then counting on finding it in the same location when we next go looking for it."¹¹ This expectation stands to be sorely tested as the practice of citing to Web sites as authority increases. Rumsey reports a frightening statistic: "The number of law review articles citing to the Web has increased from 130 articles in 1995 to 5462 in 2000" (p.32) while only 62.77% of the links used in a 2000 article are likely to still be "working" (p.35).

Rumsey, Mary, and April Schwartz. "Paper versus Electronic Sources for Law Review Cite Checking: Should Paper Be the Gold Standard?" *Law Library Journal* 97 (2005): 31–48.

Rumsey and Schwartz conducted a survey of law review editors to find out how the ascendancy of electronic sources has affected law review cite checking practices. The authors report that many law reviews continue to require the use of paper sources, which runs counter to recent trends in academic law libraries to reduce duplicate print subscriptions and limit interlibrary loan costs. This practice also creates the irony that cite checkers often seek paper sources for information that had been retrieved electronically by the author (think newspaper articles). The authors argue that the *Bluebook* should modify its rules so as to treat PDF versions in the same way as print, and they encourage librarians to teach the virtues of PDF materials.

Rupp-Serrano, Karen, et al. "Canceling Print Serials in Favor of Electronic: Criteria for Decision Making." *Library Collections, Acquisitions, & Technical Services* 26 (2002): 369–78.

Many libraries have incorporated electronic serials into their collections while continuing to subscribe to their print counterparts. The authors observe that this practice may not be financially sustainable and, as a consequence, libraries may have to reconsider what they are receiving and in what format. This article proposes potential criteria that may be used by libraries when developing policies to guide their format cancellation decisions.

11. Richard A. Leiter, *PURLS of Knowledge?* LEGAL INFO. ALERT, Jan. 2004, at 6, 6.

Russell, Gordon. "Re-Engineering the Law Library Resources Today for Tomorrow's Users: A Response to 'How Much of Your Print Collection Is Really on WESTLAW or LEXIS-NEXIS?'" *Legal Reference Services Quarterly* 21, no. 2-3 (2002): 29-54.

Responding to Hazelton's article,¹² Russell seeks to rebut her rationale for the present-day space needs of one particular mortar and brick law school library. He addresses each of the five areas to which he reduces Hazelton's position, pressing his point that "[t]oday's librarians must be prepared to serve users who believe that if everything they need is not on the Web it should at least be available online" (p.44). He concludes that "[w]e have quickly arrived at the point where the library can and must be re-engineered" (p.47). Readers will have to judge for themselves who presents the most persuasive arguments, but both articles raise questions that must be addressed by anyone facing library renovation or construction-related decisions in the near future.

Sathe, Nila A., et al. "Print Versus Electronic Journals: A Preliminary Investigation Into the Effect of Journal Format on Research Processes." *Journal of the Medical Library Association* 90 (2002): 235-43.

The authors investigated the impact of electronic journals on research processes by conducting a pilot journal-use study to test the hypothesis that medical library patrons use print and electronic journals differently. The findings (1) provide an introductory step in examining how e-journals affect the research process, (2) inform collection development decisions, and (3) may surprise publishers and educators. The study concludes that current electronic formats do not facilitate all types of uses and may be changing learning or research patterns.

Shreeves, Edward. "The Acquisitions Culture Wars." *Library Trends* 48 (2000): 877-90.

Shreeves observes that there is an ongoing conflict on college and university campuses over the appropriate role of print and electronic resources in the library of the future. These acquisitions *culture wars* revolve around the proper place of digital technology in libraries, with some faculty arguing that libraries' investment in technology comes at the expense of the book and is a betrayal of the fundamental mission of the library. He examines a range of views that characterize this debate, and argues that librarians have paid insufficient attention to the political and rhetorical dimensions of this conflict and need to communicate more effectively with all sectors of the academic community.

Slagell, Jeff. "The Good, the Bad, and the Ugly: Evaluating Electronic Journals." *Computers in Libraries* 21, no. 5 (2001): 34-38.

This article explores a variety of aspects of the evolving electronic journal format that one should consider "before traveling too far down the electronic subscription trail" (p.35), specifically addressing pricing issues, access, archiving, and future developments. The article also contains several helpful suggestions for where to go for more information.

12. Hazelton, *supra* note 5.

Smith, Abbey. "The Digital Preservation Conundrum, Part I." *The Serials Librarian* 46 (2004): 107–13.

Smith brings a clear voice to the preservation debate, offering questions and insights that can help direct the debate. As she observes, "[t]o be successful at preservation, one should have a clear idea of what to preserve, for whom, for what purpose, and for how long information is to be preserved" (p.108). Good questions, but answering them is complicated by the unique paradoxes of the digital format—"the paradoxes of digital content, organizational paradoxes, the legal and regulatory paradox, and the paradox of the user" (p.108). Smith explores the qualities of these paradoxes, raising interesting questions along the way.

Sprague, Nancy, and Mary Beth Chambers. "Full-Text Databases and the Journal Cancellation Process: A Case Study." *Serials Review* 26, no. 3 (2000): 19–31.

This article provides the results of a study that investigates the implications of replacing print journal subscriptions with their electronic full-text counterparts. The study compares seventy-nine print journals and their full-text versions available through five databases: ABI/Inform, Periodical Abstracts and WilsonSelect through OCLC's FirstSearch, and Expanded Academic Index ASAP and General BusinessFile ASAP from Gale Group. It examines currency, coverage, graphics, and stability, and finds that the electronic versions have many deficiencies in these areas.

Stewart, Lou Ann. "Choosing Between Print and Electronic Resources: The Selection Dilemma." *The Reference Librarian*, no. 71 (2000): 79–97.

When the information your clientele needs is available in both print and electronic formats, how does one make acquisition decisions? Should a choice be made between the two and, if so, how is this decision best approached? Stewart focuses on this selection dilemma and examines the differences between print and electronic materials, the advantages and disadvantages of each format, criteria for and issues related to the selection of print and electronic resources, how the availability of multiple formats impacts collection development policy statements, and experiences of librarians who have dealt with this choice.

Stolley, Scott P. "The Corruption of Legal Research." *For the Defense* 46, no. 4 (2004): 39–41, 51.

Stolley examines the shortcomings of computerized legal research and argues that excessive reliance by newer attorneys on electronic resources is adversely affecting their research skills. He observes that the law is concept-oriented, and that print materials are better suited to searching by concept and analogy than their electronic counterparts.

Summerfield, Mary, et al. "The Potential for Scholarly Online Books: Views from the Columbia University Online Books Evaluation Project." *Publishing Research Quarterly* 16 (Fall 2000): 39–52.

Summerfield summarizes the key findings of Columbia University's Online Books Evaluation Project, a study examining scholars' reactions to online books and their costs relative to print materials. The study tracked usage of an online book collection that, as of June 1999, contained 168 texts. It found that the online books appeared to be used more heavily than their paper counterparts, although

users often sought a print copy for extended reading. The life-cycle cost to libraries from online books was found to be lower than their print equivalent.

Terry, Ana Arias. "Digital Archiving: A Work in Progress." *Against the Grain* 13, no. 3 (2001): 28–32.

The author's intention in this article is to highlight the issues raised by digital archiving—the who, what, where, how, and when. She believes that much work is yet to be done on what is probably one of the biggest collaborative efforts in the information community to date.

Warner, Dorothy. "Why Do We Need to Keep This in Print? It's on the Web . . . ? A Review of Electronic Archiving Issues and Problems." *Progressive Librarian*, no. 19–20 (2002): 47–64.

Although this article addresses preservation issues largely in the context of government electronic resources, the author notes that concerns about electronic government information certainly apply to other forms of digital information. "Although there are groups working at the state, national and global levels to determine the best practices for digital archiving, the problems are complex and the stakeholders are many. Understanding the issue of digital archiving is important for librarians at all levels as local collection development and preservation decisions are being made" (pp.50–51). The article also has a useful overview of existing governmental and nongovernmental digital archive collaborations.

Webb, Colin. "Towards a Preserved National Collection of Selected Australian Digital Publications." *New Review of Academic Librarianship* 6 (2000): 179–91.

This article discusses the efforts of Australia's National Library to devise a national approach to building an archive of online publications and developing a national model for digital archiving. The National Library, charged by statute "to retain in perpetuity a copy of all material published in Australia" (p.179), is also committed to preserving and making accessible a national collection of Australian digital publications. The article describes the library's efforts to devise strategies to deal with the unique issues associated with digital artifacts (e.g., inadequate identification, technological obsolescence, unidentified diskettes containing potentially important information in unknown formats). It also discusses some of the controversial principles upon which the library's digital archive objectives are based, such as selectivity rather than comprehensiveness, and a focus on selecting titles available in online format only.

Webster, Peter. "Implications of Expanded Library Electronic Reference Collections." *Online* 27 (September/October 2003): 24–27.

Webster considers the consequences of converting from print to electronic reference tools. He examines the advantages of adopting electronic reference sources and the difficult new challenges that they sometimes create. He also explores some of the factors that are causing the pace of conversion to quicken, such as evolving publisher priorities and changing user demands.

Weiner, Robert J., Jr. "Evaluating Electronic Resources: Criteria Used by Librarians." *Syracuse Law Review* 52 (2002): 1207–15.

Weiner evaluates licensed, fee-based, and subscription electronic resources by presenting sample criteria used by libraries for these types of resources. The

criteria focus on content, access, and technology issues, and include sources for more evaluation help.

Younger, Jennifer A. "From the Inside Out: An Organizational View of Electronic Resources and Collection Development." *Journal of Library Administration* 36, no. 3 (2002): 19–38.

Younger discusses the impact of electronic resources on libraries and how they are changing access to information. She asserts that electronic resources have overtaken print materials in their importance to library collections. Younger also explores the question of how e-resources will be archived and their effect on collection development.

Zeidberg, David S. "The Archival View of Technology: Resources for the Scholar of the Future." *Library Trends* 47 (1999): 796–805.

Zeidberg makes the point that "[w]here early manuscripts and printed books have survived because they are made of durable materials, electronic records are vulnerable to alteration and data loss" (p.796). This, of course, has enormous impact on scholarly research since so much information about the past is conveyed not only by the actual information transferred, but also by the mode of transmittal. At a minimum, questions of authenticity often are resolved by examining "originals." The author makes the interesting observation that "we are witnessing difficulties with electronic texts not unlike those faced by the first European printers in the latter half of the fifteenth century" (p.799)—that is, questions of corruption of text, authenticity, etc. To preserve electronic records in an environment safe from tampering and other storage pitfalls, archivists need to apply traditional principles of records management to electronic documents if these records are to survive for use by future scholars.

Internet Resources

Council on Library and Information Resources, at <http://www.clir.org>.

The Council on Library and Information Resources (CLIR) works to expand access to information, however recorded and preserved, as a public good. The projects and activities of CLIR are aimed at ensuring that information resources needed by scholars, students, and the general public are available for future generations. The CLIR Board of Directors has identified six interrelated themes—all focused on the long-term accessibility of scholarly resources—that deserve immediate attention. Those themes are discussed at this Web site, where the viewer will also find information about available reports, tutorials, newsletters, and other potentially useful information.

Digital Library Federation, at <http://www.diglib.org>.

The Digital Library Federation, operating under the administration of CLIR, is a consortium of libraries and related agencies that are pioneering in the use of electronic-information technology to extend their collections and services. Find out about various preservation projects and initiatives at this site.

Digital Preservation Coalition, at <http://www.dpconline.org/graphics/index.html>.

The Digital Preservation Coalition (DPC) was created "to foster joint action to

address the urgent challenges of securing the preservation of digital resources in the UK and to work with others internationally to secure our global digital memory and knowledge base.” Membership in the DPC includes many prominent universities, libraries, and museums located in the United Kingdom. The site contains a variety of reports covering the DPC’s activities.

Library of Congress, National Digital Information Infrastructure and Preservation Program. Digital Preservation, *at* <http://www.digitalpreservation.gov>.

This is the Web site for the Library of Congress’ National Digital Information Infrastructure and Preservation Program (NDIIPP), funded by the United States Congress. Descriptions of NDIIPP’s programs, reports, and grants available for research projects may be found at this site.

University of California, Office of the President. Collection Management Initiative, *at* <http://www.ucop.edu/cmi>.

This is an interesting initiative spearheaded by the UC system and funded by the Andrew W. Mellon Foundation. From October 2001 through September 2002, selected print journals in UC libraries for which electronic access was available through the California Digital Library were temporarily removed from the shelf. During the study, researchers relied primarily on the electronic version of these journals. If a researcher needed to consult the print version, the volume was temporarily brought back for use or a photocopy was provided. Usage data has been gathered, and researcher experiences and preferences are being assessed. After evaluating the study results, the university will use what has been learned to develop strategies, policies, and programs for the future management of library collections consisting of both digital and print formats. The methodology is described at this site, and it also has some useful “related activities” links.