

AALL Centennial Feature*

Present in Its Absence: Law Librarians and Technology at the Founding of AALL**

Kasia Solon***

While it might seem that the law librarians who created AALL in 1906 had much less to do with technology than the librarians of today, Ms. Solon argues that in fact they not only were intimately connected with it but also produced it when needed. She examines three specific areas—bibliography, indexing, and classification—which, she contends, exemplify how these librarians responded to problems with technological solutions.

¶1 Let's play a game, law librarians. I'll say the word *technology* and you'll reply with the first words that come into your head—*computer, Internet, digital*. Notice that these are forms of technology intimately connected with how law librarians do their work today. Now say we're still law librarians, only that it is a hundred years ago, in 1906. I'll say the word *technology* and you'll say—*planes, trains, automobiles*. If I press you to think of technology affecting the law, then you might reply with the latest office equipment of the day—*typewriter, telephone, carbon copy*.¹ From this, it might seem that the law librarians who created the American Association of Law Libraries (AALL) in 1906 had much less to do with technology than the librarians of today. Yet however law librarians from a hundred years ago might have conceived of technology, the reality is that they were intimately connected with it and even produced it when needed. As a law librarian looking back a hundred years in history, when I play the game in their stead, I can reply— *bibliography, index, classification*.

* *Editor's Note:* The American Association of Law Libraries was founded on July 2, 1906, by a handful of law librarians who met during the Annual Conference of the American Library Association at Narragansett Pier, Rhode Island. To commemorate the AALL Centennial that will be celebrated with a yearlong series of events and activities in 2005–06, culminating at the 2006 Annual Meeting in St. Louis, *Law Library Journal* is including an "AALL Centennial Feature" article in each issue published through 2006. While the focus common to each article is the history of law libraries, law librarianship, and AALL, the specific topics vary according to the interests of authors and readers. Individuals interested in contributing a "Centennial Feature" article should contact Frank G. Houdek, Editor, *Law Library Journal*, Southern Illinois University School of Law, Lesar Law Bldg., Mail Code 6803, Carbondale, IL 62901-6803, (618) 453-8788, houdek@siu.edu.

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*** Reference Librarian, George Washington University, Jacob Burns Law Library, Washington, D.C.

1. See generally Mark W. Podvia, *The Victorian-Era Law Office: How to Furnish Your Workplace for under \$100*, 96 LAW LIBR. J. 727, 2004 LAW LIBR. J. 48 (describing inventions from the turn of the last century likely to have been found in a law office of that time).

¶2 At its essence, technology is “the body of knowledge available to a civilization that is of use in fashioning implements, practicing manual arts and skills, and extracting and collecting materials.”² With this elemental definition in mind, we realize that objects that people take completely for granted today are actually works of technology, beginning with that most basic of objects, the book. Indeed a scholarly observer of technology, Henry Petroski, has written a whole book on the technology of, what else, *The Book on the Bookshelf*. In it, Petroski takes a step back from the everyday technology in which we are all so immersed to point out that “books and bookshelves are a technological system.”³ If you are reading this article in its original printed form, reflect on how much easier it is to read by turning from page to page rather than unrolling a scroll.⁴ And when you are done reading it, see how handy it is that you can store this issue of *Law Library Journal* on a bookshelf, with the words on the spine clearly indicating its title for easier retrieval.⁵ A book and the shelf it sits on are examples of the implements that civilization has fashioned, in this case, to better communicate information.

¶3 That librarians are popularly associated with books is just as it should be. After all, the technology that most concerns librarians “is that which relates to communication—the conveying of messages. This has always been the case, since libraries have always dealt, and still deal, with recorded knowledge and information.”⁶ With an open understanding of technology, it becomes clear that other resources law librarians presently use are also the result of past innovation. Consider the *Index to Legal Periodicals*. Law librarians today might easily take the technology behind an index completely for granted, but we would certainly notice it if the *Index to Legal Periodicals* disappeared. Suddenly one of Petroski’s propositions on technology makes sense: “So it is with technology generally: it is most present in its absence.”⁷ When works of technology are present, they don’t wear flashing signs proclaiming themselves as such.

¶4 Technology as a field of endeavor, however, is far from being absent in today’s consciousness. In the last decade or so, technology has wrought such changes in the world that people have talked of a revolution. Law libraries are no different. A review of the literature in law librarianship over the last decade or so reveals variations on a common theme: “[A] revolution in legal research is taking

2. AMERICAN HERITAGE DICTIONARY 1843 (3d ed. 1993).

3. HENRY PETROSKI, *THE BOOK ON THE BOOKSHELF* 3 (2000).

4. *Id.* at 30.

5. *Id.* at 78.

6. MICHAEL GORMAN, *THE ENDURING LIBRARY: TECHNOLOGY, TRADITION, AND THE QUEST FOR BALANCE*, at x (2003).

7. PETROSKI, *supra* note 3, at 8; *see also* GEOFFREY C. BOWKER & SUSAN LEIGH STAR, *SORTING THINGS OUT: CLASSIFICATION AND ITS CONSEQUENCES* 35 (1999) (noting that one of the characteristics of an infrastructure, which can be embedded in information technology, is that its “normally invisible quality of working . . . becomes visible when it breaks. . . . Even when there are backup mechanisms or procedures, their existence further highlights the now visible infrastructure.”).

place right now because of technological change.”⁸ To gain perspective on how revolutionary our times might be, it is interesting to consider where law librarians were and what they thought in the past at other pivotal points. How did law librarians use and perceive technology a hundred years ago? Certainly 1906 and the first five years following it was a time of momentous change for law librarians. But that momentum may not have extended to changes in technology.

Revolution versus Evolution in Technology

¶5 Talk of a revolution in technology today implies that what preceded it was a time of stasis, if not inertia. Two writers who have considered technology in libraries across time are Michael Gorman and Christine A. Brock. In a recent book, *The Enduring Library: Technology, Tradition, and the Quest for Balance*, librarian and scholar Michael Gorman argues that the story of technology in libraries has been and continues to be one of evolution, not revolution.⁹ Writing in the 1970s,¹⁰ law librarian Brock essentially argued that, up to that point, law librarians had been reactionary to change, including resistance to innovative technology.

¶6 In *The Enduring Library*, Gorman challenges the accepted view of a present revolution in technology. As he sees it, “Libraries have always been interested in and engaged with technology.”¹¹ Instead of revolution, he sees evolution: “[O]ur present situation is foreshadowed by technological innovations over centuries. Much of our cutting-edge technology is the logical and natural outcome of ideas that are decades, even centuries old.”¹² He advocates the view that “there have been periods in history in which technology had a transformational impact that was at least comparable to our situation today.”¹³

8. Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Paradigm Shift?* 93 LAW LIBR. J. 285, 2001 LAW LIBR. J. 13; see also F. Allan Hanson, *From Key Numbers to Key Words: How Automation Has Transformed the Law*, 94 LAW LIBR. J. 563, 563, 2002 LAW LIBR. J. 36, ¶ 1 (“During the last two decades of the twentieth century, American law underwent a revolution in the management of information.”); Richard Haigh, *What Shall I Wear to the Computer Revolution? Some Thoughts on Electronic Researching in Law*, 89 LAW LIBR. J. 245, 245 (1997) (“Some of the uncertainties of this age owe to the vast changes wrought by computers and information technology.”). According to some, the revolution is over. See James G. Milles, *Out of the Jungle: How to Get Beyond the Digital v. Print Debate—and Deal with the Fact that Digital Won*, AALL SPECTRUM, Feb. 2005, at 10.

9. GORMAN, *supra* note 6, at xiii.

10. See Christine A. Brock, *Law Libraries and Librarians: A Revisionist History; or More Than You Ever Wanted to Know*, 67 LAW LIBR. J. 325 (1974); *Bicentennial History of American Law Libraries*, 69 LAW LIBR. J. 528, 547 (1976) (remarks of panelist Christine A. Brock, librarian, DePaul University Law School).

11. GORMAN, *supra* note 6, at 11.

12. *Id.* at 18. In this respect, Gorman’s argument was to some extent anticipated by a law librarian in an article from 1994. Though writing at a time when a revolution was merely considered “imminent,” the author made the same point that technology evolves and expressed skepticism about the existence of a technological revolution. Nazareth A.M. Pantaloni, *Legal Databases, Legal Epistemology, and the Legal Order*, 86 LAW LIBR. J. 679, 694 (1994). “By rejecting the paradigm of revolutionary change to describe the use of legal databases and computer-assisted legal research, we may more accurately chronicle their history and effects. . . .” *Id.* at 705.

13. GORMAN, *supra* note 6, at xiii.

¶7 Despite this broad claim, Gorman homes in on the period a hundred years ago to demonstrate his point: “[A]lmost every technology used in human communication today was present in at least embryonic form in the first year of the twentieth century.”¹⁴ He lists such examples of early library technology as telephone reference service,¹⁵ typewriters, bookbinding systems, circulation systems, catalog cards, binders, and shelving systems.¹⁶ He also notes that the American Library Association’s *Library Journal* was at that time “concerned with new techniques, methods, and applications of machinery.”¹⁷

¶8 Gorman distinguishes “between advances in the technology by which messages are conveyed and advances in the content carried by that technology.”¹⁸ To illustrate his point, he offers the example of e-mail. While e-mail is technologically superior to writing letters for personal communication, “does anyone believe that the content of e-mail messages is superior?”¹⁹ His comment suggests that, for Gorman, an advance in the content carried by e-mail might happen if everyone learned to write like William Shakespeare. This has to do with the quality of an individual’s writing, however, not technology. What Gorman leaves out is the possibility of advances in the content of messages through technology. Yet this is perhaps early library technology’s most useful feature: it had the capability to advance content by creating content.

¶9 Turning to the first issues of *Law Library Journal*, one notices a common refrain: there is more law than ever before and it threatens to overwhelm the researcher.²⁰ Sound familiar? Early law librarians recognized that their role had to change to meet this challenge. “The day of the law librarian as a mere keeper of law books is now past.”²¹ Action was needed. When AALL held its first full-fledged conference after its 1906 founding, A.J. Small, the Association’s first president, laid out an agenda of initiatives that included legal bibliography, index-

14. *Id.* at 22.

15. *Id.* at 11.

16. *Id.* at 24–25.

17. *Id.* at 25.

18. *Id.* at 16.

19. *Id.*

20. See, e.g., Frank B. Gilbert, *The Law Library*, in 1 *LAW LIBR. J.* 6, 7 (1908); *Classification of Law Textbooks*, 1 *LAW LIBR. J.* 11, 17 (1908) (remarks of Dr. G.E. Wire, librarian, Worcester County (Mass.) Law Library) (“Literature has grown and is growing at a rapid rate. . . .”); Gilson G. Glasier, *Cataloguing Law Books with Special Reference to Cooperative Indexing and Index Cards*, 1 *LAW LIBR. J.* 50, 51 (1908) (“Growth in the volume of law is a subject that has been commented upon with increasing frequency since the time of Lord Bacon. It is one which law librarians, above all others, must treat seriously, for with them rests the duty of solving the problem how best to make this vast and rapidly increasing material available to the lawyer and student.”); Roger W. Cooley, *Use of Law Books*, 2 *LAW LIBR. J.* 1, 1 (1909); John B. West, *Multiplicity of Reports*, 2 *LAW LIBR. J.* 4, 4 (1909) (“No one who has to do with the profession in connection with the purchase or use of books, can fail to notice the continual complaint of increasing cost, of lack of shelf room, of confusing citations and other complications arising from multiplicity of reports.”); Ingeborg S. Fredlund, *Loose Leaf Law Reports*, 3 *LAW LIBR. J.* 44, 45 (1911).

21. Gilbert, *supra* note 20, at 9.

ing of legal periodicals, and law classification.²² Though not proclaimed as such, this represented a call for new technology.

¶10 The technologies AALL developed would be largely imported from general libraries. Yet tailoring them to the needs of the law would require new permutations and customizations of technology. Small predicted law librarians' pattern of creative adaptation: "We inherit from the mother association the general principles of library work; yet, we must solve many questions not applicable to other branches of the A.L.A. organization. Our problems are necessarily peculiar to ourselves. . . ."²³ Small's agenda called upon law librarians to use the body of knowledge available to them to improve communication between the law librarian and the patron, whether it be "fashioning implements" or "extracting and collecting materials" for legal bibliographies, indexing, and classification.²⁴ Accordingly, law librarians' solutions from technology were peculiar to themselves.

Legal Bibliography

¶11 To begin with legal bibliography, its function is to gather resources on a single theme from many sources into one place. An analysis of a bibliography's underlying technology shows how it goes beyond advancing the way messages are conveyed to creating its own content. The original "messages" are the contents of each individual source. On the one hand, bibliography advances the messages of each individual source by reducing them to their essence. Yet the most important message a researcher takes away from a bibliography is original to that technological product: each individual work is related to the other, whether it be by author, subject, or jurisdiction.

¶12 A selected legal bibliography also sends a message about quality, with the works selected for inclusion being the ones that the creator says are the most important ones on the subject. The law librarian who selects the materials to list has had to separate the wheat from the chaff, saving the researcher hours of time in deciding where to begin first. By these means of gathering and selecting, a legal

22. A.J. Small, *President's Address*, 1 LAW LIBR. J. 4, 4 (1908).

23. *Id.*

24. If one were to adopt Gorman's mind-set for a moment, one of the few activities in AALL's early years that would qualify as technology would be improving bookbinding. Bookbinding is indeed a form of technology that advances the way messages are conveyed. New and improved bookbinding is akin to the switch from letters to e-mail. Better bound books ensure that messages last longer—an issue of preservation—while switching from letters to e-mail ensures that messages arrive faster. Moreover, early AALL work in bookbinding has been described as sparking a movement that "revolutionized the use of material for binding law books." Gilson S. Glasier, *Beginnings of the American Association of Law Libraries*, 43 LAW LIBR. J. 147, 152 (1950). Similarly clear cut as early law library technology are the devices laid out in an article from *Law Library Journal's* second issue, devoted to "labor saving devices," which ran the gamut from duplicate order blanks to an original receipt book. These devices do use technology to improve a library's functioning. J. Harry Bongartz, *Labor Saving Devices*, 2 LAW LIBR. J. 75 (1910). Yet to stop the credits here sells technology in early law libraries short.

bibliography signals substantive content about the law. The mechanism of a legal bibliography in effect creates content where there was none. While the concept of a bibliography predates AALL, the publication it founded, *Law Library Journal*, provided this technology the forum it needed to be accessible to researchers.²⁵

Indexing Legal Periodicals

¶13 The way AALL really made its mark in the legal world was by assembling the technology for indexing legal periodicals. As Gilson G. Glasier, one of the creators of the *Index to Legal Periodicals*, later recounted, creating such an index “was one of the basic reasons for organizing the Association.”²⁶ AALL started producing it “to fill a need in legal research which no publisher found it feasible to fill. . . .”²⁷ Publishing an index to legal periodicals was not without precedent, but no one in the publishing world would take on the role to produce it consistently.²⁸ Law librarians accepted the responsibility “to rescue [legal periodical literature] from oblivion.”²⁹

¶14 A committee met on the subject of an index the very year of AALL’s founding in 1906.³⁰ The actual creators of the *Index* organized it by author and subject, with the latter constituting a key feature. Early law librarians were well aware that without a subject index, a researcher “must examine the legal journals one by one.”³¹ For its subject headings, the committee opted for “the classification of subjects to follow the *American Digest Classification Plan* . . . because it had become known to the legal profession. . . .”³² With this turn of phrase (“had become known”), law librarians evidenced their recognition that the classification system of the West Publishing Company had become a technology standard. Several law librarians met to prepare the first issue of *Index*, and “this actual working together gave us a splendid opportunity to compare notes and comment on each others’ work.”³³ The creators thus also worked to standardize the way they assigned subject headings.

25. “In the journal portion there will appear in each issue . . . bibliographies of special legal subjects.” *Editorial*, 1 *LAW LIBR. J.* 30, 31 (1908).
26. Glasier, *supra* note 24, at 153; *see also* Bernita J. Davies, *A History of the Law Library Journal*, 49 *LAW LIBR. J.* 157, 158 (1956) (“[F]rom the beginning the attention of the Association was concentrated on the need for an index of periodical literature.”).
27. Forrest S. Drummond, *The History of the Index to Legal Periodicals*, 49 *LAW LIBR. J.* 148, 156 (1956).
28. *See Report of Committee on Indexing Legal Periodicals*, 1 *LAW LIBR. J.* 20, 20 (1908) (providing history of indexing legal periodicals, with the earliest attempt coming in 1882).
29. *Id.*
30. Glasier, *supra* note 24, at 148; *see also* *Editorial*, *supra* note 25, at 31. The people and exact organization for producing the *Index* varied somewhat during AALL’s early years. *See* Drummond, *supra* note 27, at 148–49.
31. *Editorial*, *supra* note 25, at 31.
32. Glasier, *supra* note 24, at 153; *see also* *Report of Committee on Indexing Legal Periodicals*, *supra* note 28, at 22 (“This division into author and subject seems to your Committee to be superior to the dictionary form, inasmuch as it emphasizes the subject index, and the scheme of classification is one which has become known to the legal profession.”).
33. Glasier, *supra* note 24, at 155; *see also* *Proceedings of the Third Annual Meeting, Lake Minnetonka, Minn., June 22nd to June 24, 1908*, 1 *LAW LIBR. J.* 33, 39 (1908) [hereinafter *Proceedings of Third Annual Meeting*].

¶15 With this one endeavor of the *Index*, law librarians of a hundred years ago crafted a technology based on classification and standardization. In a thought-provoking work titled *Sorting Things Out: Classification and Its Consequences*, information theorists Geoffrey C. Bowker and Susan Leigh Star define classification as “a spatial, temporal, or spatio-temporal segmentation of the world.”³⁴ Accordingly, a classification system “is a set of boxes (metaphorical or literal) into which things can be put to then do some kind of work,”³⁵ like knowledge production. A standard is, among other attributes, a set of agreed-upon rules for producing objects that lasts for some time and can be difficult to change.³⁶ The two concepts are related in that a classification system can become a standard for a field.

¶16 The process of creating an index requires classification from its first step. AALL’s committee had to select which periodicals to include in their index—two very large metaphorical *yes* and *no* boxes, if you will. After making a determination of which serials were substantively about law, the law librarians then had to classify individual articles into smaller “boxes” by author and subject. This selection process left the *Index* open to criticism for being too narrow, which is exactly what it received soon after it began publication.³⁷ This criticism was not surprising given that the plan behind the *Index* had been to start small and get bigger over time.³⁸ Yet no matter how large the *Index* grew, the *Index*’s creators continued to perform the important gatekeeper function of deciding which periodicals were *legal* periodicals.

¶17 The next step of classifying by subject required law librarians to make a substantive judgment about the topic of an article. By employing the standard terminology of a classification system, law librarians ensured more efficient communication of substantive information from original author to reader. Bowker and Star would designate this whole endeavor as “knowledge production.”³⁹ Indeed, like legal bibliography, an index is a technology that creates original content with its own messages. Without an index, researchers have to look through periodicals, one by one, article by article, making their own judgments about topical coverage. Through the technology of an index, however, a researcher looking for articles on, say, admiralty law can go to one source, the *Index of Legal Periodicals*, and identify all the articles on that topic by looking under the subject heading of admiralty.

34. BOWKER & STAR, *supra* note 7, at 10.

35. *Id.*

36. *Id.* at 13–14.

37. See, e.g., *News and Notes*, 4 AM. POL. SCI. REV. 252, 264 (1910) (“This index is a useful one . . . , but would be of greater value were it more complete. The *Journal of the Society of Comparative Legislation*, *Maine Law Review*, *Political Science Quarterly*, and *Yale Review* are not included among the journals indexed. Little additional labor should be required to cover all legal journals published in English and also the reports of the several bar associations, and such labor would add greatly to the usefulness of the publication.”).

38. *Editorial*, *supra* note 25, at 31 (stating that the first index “is not an index of all legal periodicals, but merely a selection to illustrate the style and method of indexing”).

39. BOWKER & STAR, *supra* note 7, at 10.

¶18 One can appreciate the technology that emerged from the *Index* by reflecting on some of the refinements instituted. Originally each article had its own explanatory note, which “made some entries quite long.”⁴⁰ Once the law librarians working on the *Index* had written the note, it would be included at least once in the author section and then as many times as deemed appropriate in the subject section. This added “considerably to the number of pages and printing costs, to say nothing of the added labor required in analyzing each article.”⁴¹ As a result, the committee decided to drop the notes in the author section.⁴² Glasier reminisced many years later that, “I shudder to think what the bulk of the present index would be if that policy had continued.”⁴³ Through such trial and error, the creators of the *Index* were standardizing their own product. Once they settled on a standard, researchers could learn the *Index*’s system once and then rely on it thereafter in order to research efficiently.

¶19 Once the technology for the *Index* was in working order, the publication generated revenue for AALL and helped put it on a sound financial basis.⁴⁴ Early law librarians recognized that the homegrown technology of the *Index*, along with AALL itself and its journal, played an important “part in transforming [law librarianship] into a profession.”⁴⁵ And though published along with the *Law Library Journal*, at this stage in the Association’s history, the *Index* received top billing. Its existence—and success—testifies to how early law librarians acting together took an active part in creating the technology they needed. However, the story is not so unified when it comes to another subject, classification.

Classification

¶20 “From its inception,” AALL “has been concerned about classification.”⁴⁶ Not only was it discussed at its first meeting in 1906, but classification was a topic of formal debate at the second AALL Annual Meeting in 1907.⁴⁷ President Small earmarked it in his address as the question “most important for our consideration.”⁴⁸ Yet even though everyone agreed that classification was important, early law librarians could not agree on which approach to take. They stood divided between author and subject arrangement. In theory, the first issue of the *Law Library Journal* (published in conjunction with the *Index to Legal Periodicals*) evenly represented the two sides, with two law librarians arguing for author arrangement

40. Glasier, *supra* note 24, at 155.

41. *Id.*

42. *Proceedings of Third Annual Meeting*, *supra* note 33, at 35.

43. Glasier, *supra* note 24, at 155.

44. *Report of Committee on Index to Legal Periodicals*, 40 LAW LIBR. J. 135, 137 (1947).

45. E.A. Feazel, *The Status of the Law Librarian*, 2 LAW LIBR. J. 21, 25 (1909).

46. Martha M. Evans, *A History of the Development of Classification K (Law) at the Library of Congress*, 62 LAW LIBR. J. 25, 26 (1969).

47. *Id.*

48. Small, *supra* note 22, at 5.

and two arguing for subject classification.⁴⁹ However, another law librarian snuck in his vote for author classification, tipping the scales three to two in his side's favor.⁵⁰ Perhaps this gave a better sense of the proportional split between the two sides, as corroborated by an early poll of law libraries in which the "weight of opinion [was] decidedly for author arrangement, with an earnest minority for subjects."⁵¹

¶21 Both author and subject arrangement required technology in that the law librarians had to fashion an implement, in this instance a system for ordering the placement of books on their shelves. Patrons could then use this implement to extract and collect the books they needed. Bowker and Star allude to how classification can have such a tangible, physical result when they call it "part of the built information environment."⁵² Simply put, "[t]o classify is to organize a body of information according to some conceptual scheme."⁵³ Or put more ambitiously, classification schemes "are culturally constructed devices for bringing meaning to experience,"⁵⁴ in this case, of the law. Bowker and Star outline three criteria of classification: to be consistent, to have categories that are mutually exclusive, and to be complete.⁵⁵ The tension between the two camps of law librarians largely arose over the first two aims of classification—whether law librarians could ever make legal classification consistent and how they should classify works that deal with more than one category of substantive law.

¶22 Author arrangement acted as a kind of ready-made system because the author's name was already assigned to the book before it even got to the library. "Every text book professes on its label to be somebody's treatise on some important subject, thus inviting classification and citation by the name of the author, rather than the subject."⁵⁶ But author arrangement was more complex than at first it appeared. As one of those arguing for subject arrangement pointed out, "What will you do with editions by various authors, and make them intelligible to the unskilled librarian or to the public?"⁵⁷ This faction faced a problem of sorting out the issue of consistency.

¶23 Despite the obstacle of authority control that had to be addressed for author arrangement, subject arrangement was more complex technologically in

49. *Classification of Law Textbooks*, *supra* note 20 (W.J.C. Berry and L.E. Hewitt argued for classification by author, G.E. Wire and A.J. Small for classification by subject).

50. Gilbert, *supra* note 20, at 10.

51. Claribel H. Smith & Hetty Gray Baker, *Management of a Small Law Library*, 1 *LAW LIBR. J.* 56, 60 (1908). Though addressing the needs of a small law library, this article's authors undertook a survey "of both small and large law libraries in all parts of the country." *Id.* at 57.

52. BOWKER & STAR, *supra* note 7, at 5.

53. Hanson, *supra* note 8, at 574, ¶ 30.

54. *Id.* at 569, ¶ 19.

55. BOWKER & STAR, *supra* note 7, at 10.

56. Gilbert, *supra* note 20, at 10.

57. *Classification of Law Textbooks*, *supra* note 20, at 17 (remarks of A.J. Small, law librarian, Iowa State Law Library).

that it required someone to make substantive judgments about a book's subject. Unfortunately, books often dealt with multiple subjects, but could only be physically located in one place. Hence one of the pro-author side assertions, "It is impossible, as a matter of fact, to group together the books upon a subject."⁵⁸ Subject arrangement would only be effective through consistency, but "[n]o two librarians would agree on the classification. . . ."⁵⁹ Opponents felt that a legal classification scheme could never delineate categories that were perfectly mutually exclusive.

¶24 The debate boiled down to the complexity of subject versus the relative simplicity of author arrangement—that is, was subject classification too technologically complicated? It was a concern not just for the law librarians working on a classification scheme, but also for the patrons using it. "The lawyers have troubles enough in finding what they want without adding to their burdens by compelling them to master the intricacies of an ingeniously devised system of [subject] classification."⁶⁰ When pressed, proponents of subject classification would have to have conceded that mutually exclusive categories are "impossible in practice."⁶¹ Early law librarian proponents probably recognized this, at least tacitly. But they felt that the benefits outweighed the risks. As we know, subject arrangement eventually won the day, though not definitively until decades later.

¶25 From a technological standpoint, subject arrangement is more ambitious in what it communicates to the researcher: it creates new substantive content on the shelf.⁶² As F. Allan Hanson wrote in 2002, "[T]he distinctive feature of classification is that it reflects ideas about meaningful relationships among the parts in the body of information being classified. . . ."⁶³ Without having to understand the

58. *Id.* at 13 (remarks of L.E. Hewitt, librarian, Philadelphia Bar Association).

59. *Id.*

60. Gilbert, *supra* note 20, at 10. There was also concern of finding staff capable of working in a library organized by subject. See *Classification of Law Textbooks*, *supra* note 20, at 11 (remarks of W.J.C. Berry, librarian, Mutual Life Insurance Co. Library, New York City) ("The writer has also found another serious objection to this arrangement to be the difficulty and labor of educating the attendants up to the proper working of the classification system on the shelves. This would become especially burdensome in a library where the books are constantly changing. . . ."); *id.* at 13 (remarks of L.E. Hewitt, librarian, Philadelphia Bar Association) ("Library attendants are constantly changing. For many of the calls they would need to consult the catalog. A man might call for a book giving both author's name and subject, and yet it could not be obtained for him until the catalog had been consulted to see where, in the discretion of the librarian, the books had been placed. Multiply the one call by twenty, forty or a hundred, in a library in a large city during some busy hour! . . . Under the alphabetical arrangement the location is known at once, without a preliminary examination of Lists."). One law librarian who instituted subject classification solved this problem in the following way: "That the pages who put up the books may not indulge their sometimes picturesque and infantile imaginings as to the proper subject of a volume, the subject class is written in pencil on the fly leaf of each treatise." E.D. Adams, *Constructing a Catalogue*, 3 LAW LIBR. J. 35, 39 (1911).

61. BOWKER & STAR, *supra* note 7, at 12.

62. An author writing in 1997 pointed out how the organization and structure of "a typical law library contains outward signs that inform and affect the subconscious understanding of law." Haigh, *supra* note 8, at 247. Though specifically commenting on law libraries' arrangement of statutes and case law, what he says is equally true of subject classification of treatises.

63. Hanson, *supra* note 8, at 574, ¶ 30.

coding of call numbers, a patron can go to a shelf and browse in an area devoted to a particular subject. Like a legal bibliography or the *Index to Legal Periodicals* section organized by subject, the materials that law librarians have placed in a given section add up to more than the sum of its parts. The arrangement of titles reveals something of the legal content behind them. In effect, subject classification creates a text for the patron to read, with spines sporting titles placed side by side, close enough together for the eye to absorb. Classification by subjects is a medium for the librarian to communicate content to the patron and “[t]he medium is the message.”⁶⁴

¶26 Those early law librarians advocating for subject arrangement appreciated these benefits of the technology. Here is a remarkable passage from 1911 by a librarian who recognized the content created by subject classification:

The impressions of the practicing lawyer about the literature of a given subject are tolerably vague; he has a hazy notion as to the book he wants, but he prefers to have it clarified by a sight together on the shelf before him of several books among which he might choose. Perhaps he has no notion at all as to particular books; all the more reason to give him a sight of some books on his general subject. Of course he can go directly to a subject card catalogue, if there is one, and find all that the library contains upon his subject, but usually he has not time enough, or, at all events, patience enough to turn over twenty, or fifty, or one hundred cards. And if he does do it, he learns much less, even when the cards contain all the data that the Library of Congress supplies, than a rapid inspection of the books would teach him. Their very bindings are eloquent.⁶⁵

Another advocate for subject classification, A.J. Small, AALL’s president at the time, suggested that “[o]rderly arrangement of books and material is necessary to the true advancement of knowledge. It is the thread which leads the explorer naturally and systematically to his subject matter.”⁶⁶ He dubbed subject arrangement “a self-guide.”⁶⁷ Of course, what appears as an invisible thread by which patrons can guide themselves is really technology created by law librarians behind the scenes. The law librarian’s guiding hand is present despite a physical absence.

¶27 There is a symbiotic relationship between law librarians and technology. Patrons will only notice technology when it is mistakenly absent and, as a result, everything falls apart. Law librarians, however, must design technology that can be present when they are absent, working on other things. G.E. Wire drove home this point in closing his argument for subject classification: “Don’t try to combine yourself into everything in your library. You may be sick or resign or finally die, occasionally you may have a vacation, and you should have your library so it can be carried on by someone *else*. . . .”⁶⁸ This fear that a library might cease to function

64. *Id.* at 570, ¶ 20.

65. Adams, *supra* note 60, at 36–37 (emphasis added).

66. *Classification of Law Textbooks*, *supra* note 20, at 16 (remarks of A.J. Small, law librarian, Iowa State Law Library).

67. *Id.*

68. *Classification of Law Textbooks*, *supra* note 20, at 15 (remarks of G.E. Wire, librarian, Worcester County (Mass.) Law Library).

in the librarian's absence was not without foundation. One early law librarian wrote that his decision to reclassify his library by subjects was in part "because the one key to the maze was lost with the old librarian, who carried in his head as much as mortal could about the books and their positions."⁶⁹ Without technology at the ready, a law librarian's absence created havoc.

¶28 Despite these arguments, AALL did not adopt a standardized subject classification system until the latter half of the twentieth century, that is, when the Library of Congress finally acted.⁷⁰ In the eyes of Christine Brock, this failure of AALL to act on its own epitomizes just how resistant to change the profession was. She argued that law libraries had been in bondage to the legal profession to the point that it "hampered the development of institutional American law libraries and prevented them from reaching the level of development their potential would have allowed."⁷¹ In Brock's view, law librarians faced another great failure on a related matter, their "lack of respect in and utilization of card catalogs."⁷² These failures were to a large extent self-inflicted as law libraries considered themselves in a category apart from libraries in general. "The historical literature of American law libraries is permeated with discussions of why law libraries were different from other libraries and reasons why methods used to make other libraries function efficiently would not work for law libraries—accompanied by paeans on the virtues of serving and allying oneself with lawyers."⁷³ But law librarians maintaining an ethos of "differentness" from other librarians "all too often took the form of opposition to change."⁷⁴ Brock's 1974 article on the history of law libraries amounted to a charge of a technological failure of the profession.

¶29 There is certainly support to be found in early AALL literature for Brock's reading of law librarians' resistance to change, as the subject-versus-author classification showdown quickly became stillborn.⁷⁵ In a 1950 article, charter AALL member Gilson Glasier recalled the 1907 debate: "It is doubtful whether anyone changed either his ideas or practices as a result of it, such is the power of habit. The subject was not again taken up by the Association until 1929."⁷⁶ Several uncoordinated attempts at a national system were tried over the decades, but none were widely adopted.⁷⁷ It was not until March 1968 that the Library of Congress made

69. Adams, *supra* note 60, at 37.

70. Brock, *supra* note 10, at 361.

71. *Id.* at 325.

72. *Id.* at 358.

73. *Id.*

74. *Id.* at 325. Brock notes that, in contrast, "law book publishers were, and continue to be, more progressive in some respects than the librarian-lawyers in the field." *Id.* at 325–36. Still, there is evidence that early law librarians recognized the important role that legal publishers could play in innovation. In writing of digests, one early law librarian described them as being the product of the librarian's "enterprising friend, the law publisher." Gilbert, *supra* note 20, at 9.

75. Another example from the early literature of AALL reveals some law librarians resistant to the concept of loose-leaf law reports. The two articles to address the idea were against it. See Fredlund, *supra* note 20, at 45; Eva N. Hawley, *Law Reports Loose Leaf System*, 3 LAW LIBR. J. 48 (1911).

76. Glasier, *supra* note 24, at 151.

77. Evans, *supra* note 46, at 25.

the first draft copy of the first section of its law classification schedule, Class KF, available.⁷⁸ It has been suggested that law librarians could hardly be blamed for not pushing the Library of Congress harder because no one knew in the beginning how important its classification scheme would become.⁷⁹ Yet those who did not resist change outright were certainly willing to wait for it.

¶30 In 1912, the chief of the Catalogue Division of the Library of Congress advised law librarians to be prepared “to wait patiently” for the Library of Congress to act.⁸⁰ Thus even in these early years, law librarians turned to the Library of Congress for guidance. The first issue of the *Law Library Journal* includes an article by a law librarian counseling his colleagues to look to the Library of Congress, even though admittedly “no work of classification has as yet been done,”⁸¹ and there were reports of delay on its law work as early as the 1909 conference.⁸² One of the law librarians arguing for subject classification at the 1907 conference seemed to foresee what he was up against. He points out that law libraries were the last set of library interests to form an alliance and “we all know only too well how conservative law is.”⁸³ Yet even though these law librarians did not create a national system, individual law libraries still dealt with technology to devise workable classification schemes for their own libraries.⁸⁴

Attitudes toward Technology over Time

¶31 The acknowledgment by even the most forward-looking early law librarians about the conservatism of their field ties into another theme from Michael Gorman’s *The Enduring Library*. Interwoven with his argument of technological evolution instead of revolution is the idea that people felt the same way about technology a hundred years ago as we do today. That not only were people in the past as concerned about technology as we are, but they were just as convinced that they lived in technologically revolutionary times.⁸⁵ “[A]t no time in history have people seen themselves as technologically primitive. On the contrary, they always saw themselves as they were—at the leading edge of technology in what they thought of as a time of unprecedented change.”⁸⁶ He terms this feeling “exceptionalism,” and people in every age can be faulted for believing it of themselves.⁸⁷

78. *Id.*

79. “That the classification system which did evolve would eventually become one of the most widely used by other libraries . . . apparently was anticipated by no one.” *Id.*

80. C.H. Hastings, *Use of the Printed Cards of the Library of Congress by Law Libraries*, 4 LAW LIBR. J. 37, 37 (1912).

81. Glasier, *supra* note 20, at 55.

82. *Report of Committee on Exchange of Duplicates*, 2 LAW LIBR. J. 32, 35 (1909).

83. *Classification of Law Textbooks*, *supra* note 20, at 14 (remarks of G.E. Wire, librarian, Worcester County (Mass.) Law Library).

84. *See, e.g.*, Glasier, *supra* note 20, at 50 (recounting reclassification efforts at the Wisconsin State Library).

85. GORMAN, *supra* note 6, at 25–26.

86. *Id.* at 15.

87. *Id.* at 18.

¶32 The evidence in the early law library literature on Gorman's point is conflicted. Even within a single article, there are mixed signals. In President Small's address at the 1907 Annual Meeting, he began by inviting law librarians to look for an iconoclastic leader: "When he comes let us not declare him a heretic and charge him with false teachings before his works are proven. More than once have the aggressive leaders of other fields of library work, more matured than our own, been declared fanatics."⁸⁸ Yet in nearly the same breath, Small warned that "[i]t is wise not to be radical. . . ."⁸⁹ If anything, what these early law librarians seemed to have advocated was evolution: "We neither expect nor desire a revolution in the library world. . . . It is far better to make haste slowly than cause a confusion and a mass of undertakings; beside, each generation has its own peculiar problems and its own peculiar embarrassments."⁹⁰ In another talk at the same 1907 conference, Small placed law librarians within a historical context of evolution. "We stand today where stood the general library of a quarter of a century ago, grasping for new thought, and for some rational scheme for the law libraries."⁹¹ But perhaps it only took a little time to notice that a revolution had been going on. By 1912, AALL President George S. Godard remarked upon a "quiet but effective revolution in the library world."⁹²

¶33 The upshot is that arguments can be made either way that law librarians a hundred years ago considered the changes around them to be as revolutionary as we do today. Yet there is one certain difference between the present and the past, which is that the word *technology* was not part of an early law librarian's professional vocabulary. Early law librarians did not even use the word *technical* in reference to their field, although law librarianship a hundred years ago was largely devoted to acquiring, organizing, and cataloging, what today we call technical services.⁹³ A hundred years ago, the most popular noun to describe the latest technology in bibliography, indexes, and classification was "tool."⁹⁴ A recurring metaphor was of lawyer's books as his working tools and the law library as the

88. Small, *supra* note 22, at 4.

89. *Id.* at 5.

90. A.J. Small, *Annual Address of the President*, 1 LAW LIBR. J. 42, 43 (1908).

91. *Classification of Law Textbooks*, *supra* note 20, at 16 (remarks of A.J. Small, law librarian, Iowa State Library).

92. *Minutes of the Annual Meeting, June 26–July 2, 1912, at Ottawa Canada*, 5 LAW LIBR. J. 7, 8 (1912) (address of AALL President George S. Godard).

93. Margaret A. Leary, *Building a Foreign Law Collection at the University of Michigan Law Library*, 94 LAW LIBR. J. 395, 396, 2002 LAW LIBR. J. 26, ¶ 5. Interestingly, when law librarians did start using the word *technology* as part of their lexicon later in the century, it may have indicated an unconscious recognition of the field's increased specialization. See SCIENCE, TECHNOLOGY, AND SOCIETY: AN ENCYCLOPEDIA, at xviii (Sal Restivo ed., 2005) ("[T]he first recorded use of the term [technology] is in the early seventeenth century. Significantly, this coincides with the emergence of eras of specialization and industrialization in modern Western societies. So the appropriation of the Greek term [technē] at that time signals an emerging sense of specialized expertise. . . .").

94. See, e.g., Small, *supra* note 22, at 4 ("[T]he librarian should fit himself for life work, and he should be given encouragement and tools to work with, and be expected to shape his library's destiny or step down and out of the service.").

lawyer's workshop.⁹⁵ To complete the metaphor, early law librarians phrased their goals in terms of making the law library a more efficient working tool and providing patrons with every available tool at the library's disposal.⁹⁶

¶34 With these descriptions of the technology of their profession, early law librarians imported language from an earlier era of production that dealt with tangible things. While the technology early law librarians developed through legal bibliography, the *Index to Legal Periodicals*, and classification was forward-looking, this language of tools in a workshop for their technology perhaps tells the tale for them on whether there was a revolution. In 1906, law librarians had not quite broken the mold for a revolution in technology to occur, whether or not there was a revolution in librarianship in general. Instead, this evidence of adapting language from older, familiar concepts to fit modern, unfamiliar needs is proof of technological evolution.

¶35 If I said the word *tool* in a word association game today, law librarians would envision *hammer, wrench, screwdriver*. If I said the word *tool* a hundred years ago, law librarians would also have conjured up *bibliography, index, classification*. Yet while the word *technology* may not have been in common usage, early law librarians' efforts on legal bibliography, indexes, and law classification demonstrate how directly they furthered the technology of the day.

Conclusion

¶36 A hundred years ago, law librarians came together to found the American Association of Law Libraries. In part through forming this new organization, law librarians created their own body of professional knowledge. They then fashioned the implements of legal bibliography, legal periodical indexes, and classification (though in this latter area they remained at odds on the exact standard to adopt). Taking these implements, law library patrons started extracting and collecting materials of substantive law. Thus, even though these law librarians did not refer to their implements as such, they were and continue to be technology. What makes these implements so striking is that, across the board, this technology

95. Gilbert, *supra* note 20, at 6, 11; *see also* Adams, *supra* note 60, at 37 ("The modern law library is to a certain extent the work-shop of the bench and bar; the librarian is room-foreman and he must see to it that each tool is in the place where the workmen have been accustomed to find it."). One early law librarian effectively pronounced law librarians to be technology personified. Mettee, *supra* note 29, at 3 ("The law librarian is an index to the community.").

96. Gilbert, *supra* note 20, at 9. Of course, the most famous metaphor of the law library from this era is not from a law librarian, but a lawyer and legal educator. Christopher Columbus Langdell, dean of the Harvard Law School, said that the law is a science and the library is its laboratory. *The Harvard Law School*, 3 LAW Q. REV. 118, 124 (1887) (remarks of Professor Christopher Columbus Langdell at the "quarter-millennial celebration of Harvard University," Nov. 5, 1886). There are a couple instances where early law librarians picked up on this scientific theme. *See* Gilbert, *supra* note 20, at 9, 10 (describing law librarians as being "experts in the science of finding the law" and classification as "scientific"); *see also* *Classification of Law Textbooks*, *supra* note 20, at 12 (remarks of L.E. Hewitt, librarian, Philadelphia Bar Association) (referring to the "scientific classification of law").

created its own original, substantive content. Through selection and placement, early law librarians constructed messages to signal legal materials' underlying substantive content.

¶37 Whether this era of the founding of AALL or, for that matter, the last ten years of our own age, amount to a revolution or evolution in technology is still subject to debate. Yet there is a third view that allows both sides to consider themselves correct. In 1972, evolutionary scientists Stephen Jay Gould and Niles Eldredge proposed the theory that long periods of stability or stasis will be interrupted occasionally by short spurts of rapid change.⁹⁷ They termed this theory "punctuated equilibrium."⁹⁸ The concept is now generally accepted by scientists and, while originally developed to illuminate animal species, has been carried over to other fields like history.⁹⁹ Applying this framework to the history of law librarianship, punctuated equilibrium would account for the flurry of activity at the turn of the last century as well as in the past decade. Both are periods marked by tremendous changes, but not necessarily representing a whole rotation in world view.

¶38 To come full circle within this article, Henry Petroski has used the phrase that technology "is most present in its absence."¹⁰⁰ When technology disappears and things no longer work, people notice its absence and come running. Yet with law librarians the reverse is true: they are absent in their presence. Law librarians can be physically absent because the presence of their technological handiwork is on display instead. Through their "tools" of legal bibliography, indexing, and classification, early law librarians created the technology patrons needed. If anything ever happened to them, whether it be helping another patron, changing jobs, or even dying, that library could be carried on by someone else. That someone else is you and me, a mere hundred years later.

97. Niles Eldredge & Stephen Jay Gould, *Punctuated Equilibria: An Alternative to Phyletic Gradualism*, in *MODELS IN PALEOBIOLOGY* 82 (Thomas J.M. Schopf ed., 1972).

98. *Id.* at 109–10.

99. *See, e.g.*, Clifford J. Rogers, *The Military Revolutions of the Hundred Years' War*, 57 *J. MILITARY HIST.* 241, 277 (1993).

100. PETROSKI, *supra* note 3, at 8.