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An Ecological and Holistic Analysis of the Epistemic Value of Law Libraries*

Paul D. Callister** and Dana Neacsu***

New technologies of communication do not generate specific social forces and/or ideas, as technological determinists would have it. Rather, they facilitate and constrain the extant social forces and ideas of a society. The hypothesized process can be likened to the interaction between species and a changing natural environment.—Ronald Deibert¹

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1. Ronald J. Deibert, Parchment, Printing, and Hypermedia 36 (1997).

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Introduction to the Problem, Epistemic Roots, and Deibert's Theory

¶1 Despite its uncertain trajectory, the recent COVID-19 pandemic has already amplified global social, racial, economic, and political disparities. Within this sea of systemic impact, the pandemic has also deeply affected how law school teaching, research, and services take place. Yale Law School Dean Heather K. Gerken poignantly put it:

Even as [law] schools reoriented themselves around their core mission, they were forced to change how they carried out that mission It doesn't take long to realize what's magic and what isn't about legal education. If you look to what law schools worked to preserve in the midst of chaos, budgetary pressure, and personal stress [and losses], you'll quickly see what matters.²

^{2.} Heather K. Gerken, Will Legal Education Change Post-2020?, 119 MICH. L. Rev. 1059, 1060-61 (2021).

This article agrees that the stress the pandemic has exerted on educational institutions has brought to the fore a growing sentiment for debating law schools' core missions. In Gerken's words, this core mission concerns "Teaching. Ideas. Service." Notably, Gerken does not mention libraries in her article, so we are left to wonder why. What role does the library play in the Spartan reality of post-pandemic legal education?

¶2 Heightening our concern about the ambiguous perception of our role is Association of American Law Schools (AALS) President Vicki C. Jackson's column Legal Scholarship and Knowledge Institutions in Constitutional Democracy. Here Jackson seems to give uncertain credence—or at least afterthought—to the value of libraries as "knowledge institutions" that make up society's epistemic foundation. She states, "We as legal educators are part of a broad infrastructure of 'knowledge institutions'—universities, a free press, scientific offices (public and private), even libraries—that help provide the epistemic foundation for a successful democracy."⁴

¶3 Jackson surely meant no harm, but are libraries just an afterthought worthy of honorable mention? Do they carry less weight than other epistemic institutions? Jackson's meaning cannot be pinned down with certainty, but the questions we have raised are important, nonetheless. On September 5, 2019, University of Texas library director and law professor Barbara Bintliff posted her concern over Jackson's comments on the library directors listserv. Bintliff challenged us, her colleagues, to address the implications in Jackson's statement about the role of law libraries in our democracy. Here we explore the answer to this question using an ecological and holistic analysis, which includes epistemic considerations.

Technological Determinism and Ecological Holistic Media Theory

¶4 We start with the presumption that perhaps law school administrators, faculty, and students forget about libraries by assuming their subordination to technology. Such a narrow view relegates the epistemic function of libraries to providing media technologies—whether books or databases. This kind of technological determinism focuses on the continual encroachment of digital technologies (including artificial intelligence, or AI) on the library's print collections and human functions, such as reference and cataloging. However, using historian Ronald Deibert's *ecological holistic media theory* as a framework (including epistemic analysis),⁶ we propose a much broader and renewed view of law libraries' roles as centers of teaching, knowledge (including ideas), and service.

^{3.} Id. at 1060.

^{4.} Vicki C. Jackson, Ass'n of Am. Law Schools, *Legal Scholarship and Knowledge Institutions in Constitutional Democracy*, AALS News (Summer 2019), https://www.aals.org/about/publications/newslet ters/summer2019/legal-scholarship-and-knowledge-institutions-in-constitutional-democracy/ (last visited Oct. 3, 2021).

^{5.} Posting of Barbara A. Bintliff, Joseph C. Hutcheson Professor in Law, Director, Tarlton Law Library and Jamail Center for Legal Research, University of Texas School of Law, bbintliff@law.utexas.edu to lawlibdir@lists.washlaw.edu (Sept. 5, 2019 3:09 PM CST) (on file with authors).

^{6.} See infra figure 1—Ronald Deibert's Model of Ecological Holistic Media Theory, as adapted by authors to law.

¶5 Jackson may have (unintentionally) diminished the role of libraries by following a common misperception about their relationship with new information technologies.⁷ After all, *Oxford English Dictionary* links libraries to *liber*,⁸ the Latin word for *books*, which some may consider antiquated resources. However, books are creatures of print, whether in physical or digital form. Preserving the print-like format and characteristics of books is an important objective of e-book platforms and many databases.⁹ Nevertheless, may Jackson have wondered, like many others,¹⁰ whether today's online technologies, the Internet, and AI are the library's inevitable successors? In the same way that a mere collection of books, which is more like a warehouse, has never created a library, today's technologies cannot replace the library's multiple facets—human expertise; pedagogical mission; social, institutional, and technological networking; and transformative, communal spaces. Indeed, the library's relationship with technology should be described as *interdependent*. To make our case more fully, we explore the answer to this question using an *ecological and holistic analysis*. We have adapted the ecological holistic media theory, developed by Ronald Deibert,¹¹ as a rejection of

- 10. See supra note 7.
- 11. See infra figure 1. Deibert expounds on his theory: Ecological holism takes as its starting point the basic materialist position that human beings like all other organisms, are vitally dependent on, and thus influenced by, the environment around them. However, it recognizes that because human beings have the unique ability to communicate complex symbols and ideas, they do not approach their environment on the basis of pure instinct (as other organisms do) nor as a linguistically naked "given," but rather through a complex web-of-beliefs, symbolic forms, and social

constructs to which they are acculturated and through which they perceive the world around them.

^{7.} There have been public doubts about law libraries' future in legal education. See, e.g., James G. Milles, Legal Education in Crisis, and Why Law Libraries are Doomed (Dec. 20, 2013), SUNY Buffalo Legal Studies Research Paper No. 2014-015, https://ssrn.com/abstract=2370567 (last visited Oct. 4, 2021) (Milles's reasons are mostly economic); see also Brian Z. Tamanaha, Failing Law Schools 174 (2012) ("The entire set of [ABA] rules relating to the law library must be deleted. These rules require law schools to maintain unnecessarily expensive library collections and a large support staff; the book-on-the-shelf library is virtually obsolete in the electronic information age.").

^{8.} *Library*, *n.1*, OED ONLINE (search under Etymology for "*liber* book") (updated June 2021), https://www.oed.com/view/Entry/107923 (last visited Oct. 4, 2021).

^{9.} The same attempt at preservation of similarity during the transition of media occurred during the movement from manuscript codices to books printed on presses. "At least until the beginning of the sixteenth century, the printed book remained dependent on manuscript, imitating its page layout, its writing hands and its general appearance." Guglielmo Cavallo & Roger Charier, Introduction, in A HISTORY OF READING IN THE WEST 23 (Guglielmo Cavallo & Roger Chartier eds., Lydia G. Chochrane trans., U. Mass. Press, 2003) (1995). See, e.g., the images of the Gutenberg Bible in Gutenberg Bible, Library of Congress Bible Collection, Library of Congress, https://www.loc.gov/exhibits/bibles/the-gutenberg-bible.html (last visited Oct. 4, 2021), and compare the similarity of the text to illuminated manuscripts (e.g., Giant Bible of Mainz, Library of Congress Bible Collection, Library of Congress, https://www.loc.gov/exhibits/bibles /the-giant-bible-of-mainz.html (last visited Oct. 4, 2021); Mirror of the Saxons, WORLD DIGITAL LIBRARY, LIBRARY OF CONGRESS, https://www.wdl.org/en/item/11620/ (last visited Oct. 4, 2021) (view the images and text)). The same is true in Lord Coke's Institutes, which is a much later work in the early 17th century. See Paul D. Callister, The Book as Authoritative Sign in Seventeenth-Century England: A Review Through the Lens of Holistic Media Theory, in LAW, CULTURE AND VISUAL STUDIES 49 (Anne Wagner & Richard K Sherwin eds., 2014) ("[T]he layout of Coke's first part of the Institutes, the Commentaries upon Littleton, visually replicates the glossed manuscript texts of Justinian, which will only serve to reinforce the authority of the Institutes.").

technological determinism (the belief that changes in society are all accounted for by changes in technology).

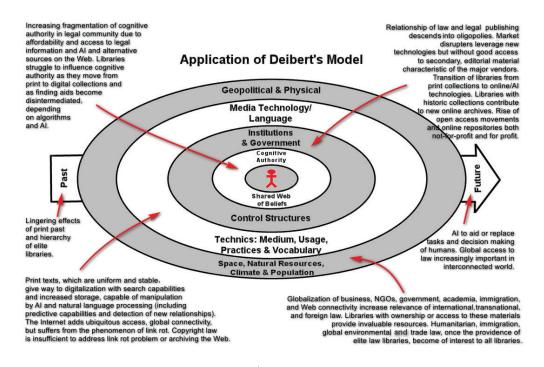


Figure 1

Ronald Deibert's Model of Ecological Holistic Media Theory as adapted by authors to law

¶6 To understand the significance of Deibert's model, ¹² it must first be contrasted with earlier theory. In the 1950s and 1960s, Marshall McLuhan and Harold Adam Innis conceived of *media theory*, not simply as an underlying theoretical basis for librarianship and information systems, but as an explanation of historical evolution, including geopolitics and social institutions. ¹³ For example, Innis's theory finds that in about 2160 BC (during the Egyptian Middle Kingdom), the movement from Egyptian monarchy to feudalism "coincides with a shift in emphasis on stone as a medium of communication or as a basis of prestige as shown in the pyramids, to an emphasis on papyrus." ¹⁴

DEIBERT, *supra* note 1, at 43 (1997). In other words, unlike other species, it is through "social epistemology" or "web-of-beliefs" that humans perceive the world. *See also* Paul D. Callister, *Law's Box: Law, Jurisprudence and the Information Ecosphere*, 74 UMKC L. Rev. 263, 265–66 (2005).

^{12.} See supra figure 1.

^{13.} Deibert, *supra* note 1, at 6. *See generally* Harold Adam Innis, Empire and Communications (1950); Harold Adam Innis, The Bias of Communications (1951); Marshall McLuhan, Gutenberg Galaxy (1962); Marshall McLuhan, Understanding Media: The Extensions of Man (1964); Marshall McLuhan & Quentin Fiore, The Medium Is the Message (1967); Marshall McLuhan & Quentin Fiore, War and Peace in the Global Village (1968).

^{14.} Innis, Empire and Communications, *supra* note 13, at 17.

However, this initial theory is criticized for being technologically deterministic and "monocausal," crediting every geopolitical development and social innovation to new media technology.¹⁵ Another prominent and prodigious media theorist, Elizabeth Eisenstein, ¹⁶ is criticized for similar reasons.¹⁷

¶7 In a later generation, Deibert imposes a less deterministic and, ultimately, Darwinistic model on media theory, in what he terms a "holistic" approach. [T]he central proposition of [Deibert's] medium theory is that changing modes of communication have effects on the trajectory of social evolution and the values and beliefs of society. Deibert modifies earlier theory by moving away from technological determinism to emphasize the ecological and holistic nature of information media:

New technologies of communication do not *generate* specific social forces and/or ideas, as technological determinists would have it. Rather, they *facilitate* and *constrain* the extant social forces and ideas of a society. The hypothesized process can be likened to the interaction between species and a changing natural environment. New media environments favor certain social forces and ideas by means of a functional bias toward some and not others, much the same as natural environments determine which species prosper for "selecting" for certain physical characteristics. In other words, social forces and ideas survive differentially according to their "fitness" or match with the new media environment—a process that is both open-ended and contingent.²⁰

It is a question of "fitness" whether libraries survive. We believe this article demonstrates libraries are fit for the new environment and are undergoing significant adaptation.

¶8 Figure 1 modifies Deibert's model to our law library environment. Deibert believes, among other things, that social forces as organized by institutions,²¹ ergo libraries, survived or failed based on a host of factors, of which technology was just one.²² In a sense, Deibert's work is Darwinian; the institutions best adapted to new environments survive and flourish.²³ Note, too, that cognitive authority or social epistemology lies at the center for consideration. This same analysis can be applied to law libraries, universities, the press, and the practice of law. We focus our analysis on libraries in general and specifically law libraries.

^{15.} See Deibert, supra note 1, at 26–27; see also James W. Carey, McLuhan and Muford: The Roots of Modern Media Analysis, 31 J. Commc'n 168 (1981).

^{16.} See generally Elizabeth L. Eisenstein, Advent of Printing and the Problem of the Renaissance, 45 Past & Present 19 (1969); Elizabeth L. Eisenstein, Advent of Printing in Current Historical Literature: Notes and Comments on an Elusive Transformation, 75 Past & Present 727 (1970); Elizabeth L. Eisenstein, The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe (1979); Elizabeth L. Eisenstein, The Printing Revolution in Early Modern Europe (1983); Elizabeth L. Eisenstein, Print Culture and Enlightenment Thought (1986).

^{17.} See Deibert, supra note 1, at 27; see also Theodore K. Rabb, The Advent of Printing and the Problem of the Renaissance: A Comment, 52 Past & Present 135 (1971).

^{18.} See Deibert, supra note 1, at 37-38.

^{19.} *Id.* at ix.

^{20.} See id. at 36 (emphasis in original).

^{21.} See id. at 38-39.

^{22.} See id.

^{23.} See id.

Epistemology—The Heart of Analysis

¶9 Being at the center of Deibert's rings, epistemology lies at the core of our ecological and holistic analysis. ²⁴ The epistemic root of our analysis concerns the perceived, tenuous relationship of the legal profession's "theory" about the nature of legal knowledge (of what the law is) to law libraries. In shorthand, an epistemology answers the questions how do you know, and how do you know that you know? ²⁵ Now, there are many theories of epistemology. ²⁶ As we will demonstrate in this article, and despite any doubts to the contrary, law libraries have an *epistemic* role ²⁷—they facilitate confidence in how you know what the law is.

¶10 In answering these questions, we start from a more nuanced view of epistemology, one that is psychological and evolves through critical thinking, even information literacy. In fact, the most sophisticated type of epistemology recognizes that opinions are not all equally good, because of the different evidence supporting them (or not). In turn, that evidence can be of high quality (or not). This is called "the evaluativist position in which critical thinking serves the function of evaluating and selecting among competing views on the basis of their degree of support by evidence." It differs from the absolutist and multiplist views, which give equal value to all opinions, assuming that they all reflect reality. The downside of our evaluativist approach is that it

tends to be associated with having undergone tertiary-level education. The implications for information literacy if [correct, implies that] only a proportion of the most highly educated subgroups of the population will perceive the need, and routinely be in the habit of, exercising critical thinking in relation to information obtained from whatever source.²⁹

Fostering information literacy is a key function of libraries. Being critical about information sources ties directly into the pedagogical and epistemic missions of libraries.

¶11 Turning to philosophy for other interpretations, examples of epistemologies include scholasticism (teachings of religious or philosophical schools "based upon the authority of the Bible and Christian Fathers and with the logic and philosophy of Aristotle and his commentators"), rationalism (with Euclidean geometry as the

^{24.} See id. (note the center ring).

^{25.} See Anthony Anderson & Bill Johnston, From Information Literacy to Social Epistemology: Insights from Psychology 54 (2016) ("Epistemology concerns the individual's lay 'theory' about the nature of knowledge and what can be known.").

^{26.} See infra note 30 and accompanying text.

^{27.} From a philosophical perspective, "epistemic role" means providing an epistemology—a way of knowing—which in turn posits an answer to the philosophical question at the heart of every discipline—"how do you know, and how do know that you know?" "Epistemic" can also mean relating to "degree of validation." See Epistemic, adj., OED Online (3d ed., modified June 2021), https://www.oed.com/view/Entry/63541 (last visited Oct. 4, 2021); see also Epistemology, n., OED Online (3d ed., modified June 2018), https://www.oed.com/view/Entry/63546 (last visited Oct. 4, 2021) ("The theory of knowledge and understanding, esp. with regard to its methods, validity, and scope, and the distinction between justified belief and opinion; . . . a particular theory of knowledge and understanding" (emphasis added)). Libraries certainly can play an epistemic role in validating information.

^{28.} Anderson & Johnston, supra note 25, at 55.

^{29.} Id. at 56.

foremost example), empiricism (by observation), statistical empiricism (weighing probabilities), and pragmatism (testing whether something works).³⁰

¶12 It is tempting to think of libraries and law as adherents to a modern scholastic tradition of epistemology. After all, libraries not only provide access to authoritarian scholarship in the vein of historical scholasticism, but they also authenticate and validate sources of authority (official and unofficial statutes and case reporters), and facilitate recognition of scholarship (such as certain treatises or law reviews) and secondary materials as accepted as persuasive authority in the law. Law libraries also provide access tools to those authorities. We recognize that jurisdiction and relevance may also play a role in determining authority in the field of law, and we distinguish between persuasive and binding authorities. However, we are not suggesting that law is limited to a modern scholasticism because the case can easily be made that those other epistemologies, such as rationalism and empiricism, have their place in the law, but that is a topic beyond the scope of this article. We make brief mention that in librarianship, cataloging represents an attempt to create a rational system (with systemic and noncontradictory rules like geometry) for the classification of works of knowledge.³¹

Summary of the Analysis Ahead

¶13 With Deibert's model as our framework, we have our lens for thorough analysis: the next section deals with the epistemic role of libraries as cognitive authority and the history of libraries and the legal profession as a community of readers. This analysis is combined with a brief exploration of librarianship from its modern inception through the present, to better support our view of libraries as continuing their role as part of the epistemic foundation of democratic society subject to the rule of law. The following section lays claim to libraries' status as "knowledge institutions" using a multifaceted analysis. Using this analysis, we consider the libraries as knowledge workers and network relationships; libraries as portals; libraries as their physical holdings; libraries as an impact on their constituents; and libraries as transformative spaces and communal centers. Next, we focus on new and old media technologies and their influences. The next section focuses on geopolitical and physical issues. Finally, we consider influences on the future of libraries. The sections align with Deibert's model. In conclusion, the article finds that the future of law libraries is not technologically determined and affirms their epistemic and foundational role in society. In such role, it is especially relevant to democracy and the rule of law.

^{30.} See Scholasticism, n., OED Online (3d ed. modified Dec. 2019), https://www-oed-com.proxy library.umkc.edu/view/Entry/172502 (last visited Oct. 4, 2021); D.W. Hamlin, Epistemology, History of, in 3 Encyc. of Phil. 8, 9–10, 24 (Paul Edwards ed., 1967) (differences of rationalism, empiricism, and pragmatism); George L. Kline, Keynes, John Maynard, in 4 Encyc. of Phil., supra, at 333–34 (on statistical inference); Paul Kurtz, American Philosophy, in 2 Encyc. of Phil., supra, at 83, 87–88.

^{31.} Although proprietary, the West Topic and Key Number System plays a similar role—a role augmented and challenged by search technologies (now assisted with AI).

Social Epistemology and Libraries as Epistemic Institutions

¶14 So, what is *social epistemology*? Here we define social epistemology as a branch of epistemology that studies knowledge as arising at the societal and communal levels, from individual relations interconnected to others. A simple example is whether a community, such as law, considers libraries a trusted source of knowledge—an institution supporting a way of knowing.³² Another example is the transmission of knowledge from one person to another, through libraries as intermediaries. In a related perspective, others associate social epistemology with enquiries examining the social contexts of belief and thought.³³ A simple example would be the role of libraries within their academic institutions and within the larger society. Social epistemology may be unique to a community or a profession such as law.

¶15 Figure 1 represents Deibert's model of holistic ecological media theory as adapted by the authors to law. Deibert depicts the information environment as a series of concentric rings, with humanity's social epistemology at the center surrounded by various spheres of influence, each one bearing down on another.³⁴ We have done the same, with modifications for what we believe is law's evolving information environment. Indeed, the rings "blend" into one another—social epistemology blends into the ring of institutions.³⁵

¶16 Visually, we have adapted the center term from Deibert's original formulation of "web of beliefs" to use a term coined by Robert Berring, "cognitive authority." This comports well with the *social epistemology* (also in the model's inner ring) of the profession of law. In any event, the relationship to AALS President Jackson's statement about epistemic foundations relates well to the idea of cognitive authority, *which means at its core the act of conferring trust*. B Libraries have always played a role in helping communities establish what is their cognitive authority. However, that role has not always been recognized. With respect to cognitive authority or social epistemology, our epistemic foundation as a democratic society, we have noted some basic challenges for libraries and the legal community. There is

^{32.} Deibert makes clear that the ring of social epistemology or "web-of-beliefs" (in his version) "blends into the next ring, which is composed of formal and informal *institutions*, ranging from states and corporations and organizations on the formal side to habits of actions and general modes of organizing human interaction and subsistence on the informal side." Deibert, *supra* note 1, at 38–39. This blending of social epistemology into institutions would include libraries as formal institutions.

^{33.} For more, see, e.g., Social Epistemology (Adrian Haddock, Alan Millar & Duncan Pritchard eds., 2010).

^{34.} See Deibert, supra note 1, at 38, fig. 2.

^{35.} See supra note 32.

^{36. &}quot;Web-of-beliefs" was the original term used by Deibert at the innermost ring of his model. It is a related concept to "social epistemology" and our use of "cognitive authority." *See* Deibert, *supra* note 1, at 38, fig. 2.

^{37.} Robert C. Berring, *Legal Information and the Search for Cognitive Authority*, 88 CALIF. L. Rev. 1673, 1676 (2000). Here Berring lays out his idea of cognitive authority ("The cornerstone tools of legal information have been established as unquestioned oracles. They appeared too obvious to examine.").

^{38.} Id.

increasing fragmentation of cognitive authority in the legal community due to affordability and access to legal information and AI and alternative sources on the web. Libraries struggle to influence cognitive authority as they move from print to digital collections and as finding aids become disintermediated, depending on algorithms and AI.³⁹

¶17 Usually, we hear scholars talk about the epistemic power people or institutions possess. ⁴⁰ Their capacity as an epistemic agent is best understood in terms of two related abilities. First is the ability to influence what others believe, think, or know on the basis of authority. Librarians are in a position to do that each time they face research questions. "The second is the ability to enable and disable others from exerting epistemic influence. This is done by way of believing others ('giving them credence') or by discrediting them." ⁴¹ When faculty members send students our way or when librarians are entrusted with their own for-credit classes, we are enabled to exert influence, and our epistemic power increases.

¶18 An institution has epistemic power to the extent it is able to influence what people think, believe, and know, and to the extent it is able to enable and disable others from exerting epistemic influence. The law school, for example, possesses epistemic power by virtue of its position within a university and the legal profession, which grants it a special status as the source of legal education.

¶19 This brings us to the question related to the epistemic power of academic law libraries: it rests on the law school administration, faculty, and students recognizing the role and value of law libraries, by peer institutions granting recognition to each other, by the community's (academic, legal, and public) use of the library, and by the perceived credibility of law librarians' relevant expertise. In other words, a library's epistemic power is a two-way street: in part, it is granted to the library and, at the same time, it is of the library's own making in the quality of the librarians as epistemic workers and the utility of its collection—physical and electronic. Law libraries' epistemic power functions in a most essential way—to help its users *find* what the law is from authentic and relevant authority.

The Past of Libraries and Reading in the Legal Profession

¶20 To understand the past, from Deibert's model we observe "lingering effects of print past and [the] hierarchy of elite libraries." To understand that past, we begin with the rise of lawyers as a fellowship of readers.

The Rise of Lawyers in England as a Fellowship of Readers

¶21 Membership in the bar and the English Inns of Court meant fellowship with a community of readers. The structure of the Inns of Court, increased use of books of

^{39.} See supra figure 1. For a discussion of AI, the law, and legal research, see Paul D. Callister, Law, Artificial Intelligence, and Natural Language Processing: A Funny Thing Happened on the Way to My Search Results, 112 Law Libr. J. 161, 2020 Law Libr. J. 6.

^{40.} Alfred Archer et al., Celebrity, Democracy, and Epistemic Power, 18 Persps. on Politics 27 (2019).

^{41.} Id. at 28.

^{42.} See supra figure 1.

legal instruction (such as Lord Coke's *Institutes* or Littleton's *Tenures*), the growth of libraries among attorneys, correspondence among members of the profession, professional customs, and even disagreements between Lord Coke and King James I underscore the essence of the legal community as based in a commonality of reading.⁴³

¶22 Membership in an Inn implied a progression of fellowships: "two years in Clerks' Commons, two in Master's Commons, Utter Barrister in eight years and in sixteen, Reader and Bencher Five or ten years after that, a fortunate few were called by the Queen to the degree of Serjeant-at-Law."⁴⁴ Head instructors at the Inns were called Readers and were selected from "Utter" or outer Barristers by Benchers:⁴⁵

Many of the Readers of the Inns of Court afterwards attained to high positions at the Bar or on the Bench, and many of their "Readings" were long remembered in the profession for their learning and excellence. Among the most celebrated readings were Sir Thomas Littleton's upon the Statute of Entails, Sir James Dyer's upon Wills, Sir Edward Coke's upon Fines, and Sir Francis Bacon's upon Uses. The most famous of them was a Reading of Searjeant Callis of Gray's Inn, upon "Sewers," which for many years constituted the leading authority upon that unsavory subject. While the readings continued, the Reader was obliged to give a series of magnificent feasts, the expense of which sometimes exceeded £1,000. 46

These readings resembled more of a festive lecture than a simple vocalization of text among a group of law students. Nonetheless, the role of traditional private reading is also evident, at least with respect to Lord Coke, who apparently arose at 3:00 a.m. each morning to read until 8:00 a.m., followed by hearing argued cases and attendance at "readings."

¶23 In 1769, John Rutledge (first governor of South Carolina and second Chief Justice of the United States),⁴⁸ wrote a telling letter to his brother Edward (a signer of the Declaration of Independence),⁴⁹ who was then studying law in England at the

Prohibitions Del Roy, 77 Eng. Rep. 1342, 1343 (K.B. 1607). Artificial reason came by reading the law in the Inns at Court—a shared *social epistemology*.

- 44. Catherine Drinker Bowen, The Lion and the Throne: The Life and Times of Sir Edward Coke (1552–1634), at 62 (4th prtg. 1957).
- 45. See D. Plunket Barton, Charles Benham & Francis Watt, The Story of the Inns of Court 12 (Fred B. Rothman & Co. 1986) (1924).
 - 46. Id. at 13.
 - 47. Id. at 123.
 - 48. John Rutledge, Wikipedia, https://en.wikipedia.org/wiki/John Rutledge (last visited Oct. 4, 2021).
- 49. *Edward Rutledge*, Wikipedia, https://en.wikipedia.org/wiki/Edward_Rutledge (last visited Oct. 4, 2021).

^{43.} See Hastings Lyon & Herman Block, Edward Coke, Oracle of the Law 179 (1929) (description over dispute whether King James I serves as an actual judge, "the supreme judge" for any court). Coke would argue:

[[]T]rue it was, that God had endowed His Majesty with excellent science, and great endowments of nature; but His Majesty was not learned in the laws of his realm of England, and causes which concern the life, or inheritance, or goods, or fortunes of his subjects, are not to be decided by natural reason but by the artificial reason and judgment of law, which law is an act which requires long study and experience

"Temple Inn." The letter counseled his brother to "not neglect the classics," to study "generals, poets, and heathen philosophers," English history, and advising:

[W]ith regard to particular law books—Coke's Institutes seem to be almost the foundation of our law. These you must read over and over, with the greatest attention, and not quit him till you understand him thoroughly, and have made your own everything in him, which is worth taking out. . . . Blackstone, I think, useful. . . . I would read every case reported from that time [the Glorious Revolution of 1688] to the present [1769]. . . . I would have you, also, read the Statute Laws throughout When I say you should read such a book, I do not mean just to run cursorily through it, as you would a newspaper but to read it carefully and deliberately, and transcribe what you find useful in it. 54

Apparently, to study law was a commitment to an immersion in reading and to collecting legal texts—it was the shared social epistemology of the profession. True, there were other aspects, like attending "readings," making notes while observing court and exchanging those with fellow students,⁵⁵ and mastering oratory,⁵⁶ but the basic program involved immersion in reading while in the fellowship of other students at the Inns.

¶24 The communal impact of the English Inns on reading as a profession is evidenced in several ways. Early English judges and attorneys apparently elected to read Littleton's *Tenures* each Christmas.⁵⁷ Furthermore, the life of an English judge as described by John Fortescue in the late 15th century is rather contemplative and bibliocentric in nature:

[T]he justices of England do not sit in the king's courts except for three hours a day, that is, from eight o'clock before noon to eleven o'clock, because those courts are not held in the afternoon. . . . Hence the justices, after they have refreshed themselves, pass the whole of the rest of the day in studying the laws, reading Holy Scripture, and otherwise in contemplation at their pleasure, so that their life seems more contemplative than active. 58

Fortescue also connected reading with festivals and described the role of the Inns in helping nobles acquire manners appropriate to their class:

- 51. Id. at 123.
- 52. Id. at 124.
- 53. Id.

- 55. See 2 id. at 121.
- 56. See id. at 122.

^{50.} See 2 John Belton O'Neall, Biographical Sketches of the Bench and Bar of South Carolina 115 (1859).

^{54.} *Id.* at 124–26 (emphasis added). Both John and Edward Rutledge would serve as delegates to the General Congress prior to the American Revolution and later as governors of South Carolina. Edward Rutledge would sign the Declaration of Independence, and John would serve on the U.S. Supreme Court and as Chief Justice of the S.C. Supreme Court. On John Rutledge, *see* 1 *id.* at 17–37; on Edward Rutledge, *see* 2 *id.* at 115–29.

^{57. 2} Westminster Hall or Professional Relics and Anecdotes of the Bar, Bench, and Woolsack 8 (1825) (describing Roger North as the model law student); see also 2 Gilbert J. Clark, Life Sketches of Eminent Lawyers: American, English, and Canadian 101 (1895); Frederick C. Hicks, Men and Books Famous in the Law 95 (Lawbook Exchange 1992) (1921).

^{58.} JOHN FORTESCUE, DE LAUDIBUS LEGUM ANGLIAE 129 (S.B. Chrimes ed. & trans., Wm. W. Gaunt & Sons 1986) (1942). The dates ascribed to *De Laudibus Legum Angliae* are between 1468 and 1478. *Id.* at ix.

In these greater inns, indeed, and also in the lesser, there is, besides a school of law, a kind of academy of all the manners that the nobles learn. There they learn to sing and to exercise themselves in every kind of harmonics. They are also taught there to practice dancing and all games proper for nobles, as those brought up from the king's household are accustomed to practice. In the vacations most of them apply themselves to the study of legal science, and at festivals to the reading, after the divine services, of Holy Scripture and of chronicles.⁵⁹

In effect, the Inns functioned, at least in the late 15th century (at the time of Fortescue) as a kind of finishing school for young nobles, and at the same time, the Inns, no doubt for many, instilled habits of reading and study that were characteristic of the emerging professional class of lawyers and judges.

¶25 The full impact of reading, as a result of the mass production of law books through the printing press, did not affect the Inns until well after Fortescue's time. As noted by the eminent legal bibliographer Fredrick Hicks, "Reasons for writing it [Littleton's Tenures] appear when we recall that, up to the year of Littleton's death [1481], no English law books had been printed. There were in existence numerous legal tracts, a few treatises and the volumes of Year Books, but all of these were in manuscript." Littleton's death occurred within a few years of Fortescue's published observations on the Inns. If reading and studying the law were already important in Fortescue's (and Littleton's) time, they would likely increase in significance as law books became more available through means of the printing press. Although originally in manuscript form, Littleton's Tenures are, per Lord Coke, written for Littleton's son, who was a law student. By the time Coke's Institutes appeared in 1628, 73 editions of Littleton were already published, indicating a heavy demand for the book (see fig. 2).

^{59.} Id. at 119.

^{60.} HICKS, supra note 57, at 86; see also id. at 84 (date of Littleton's death).

^{61.} See Fortescue, supra note 58, at 129.

^{62.} HICKS, supra note 57, at 85.

^{63.} See, e.g., Littleton Tenures in English (Fleetestrete, London, Rychard Tottill 1568); Littletons Tenures in English (Temple Barre, London, Richard Tottell 1592); Les Tenures De Monsieur Littleton (London, Companie of Stationers 1608); Les Tenures De Monsieur Littleton (London, Companie of Stationers, London 1617); Thomas Littleton, Littleton's Tenures in English (Eugene Wambaugh ed., 1903).



Figure 2Lord Coke's Notes in His Personal Copy of *Littleton's Tenures*⁶⁴

It can be surmised that the prominence of reading standardized texts and the importance of book collections (even libraries) among the Inns grew with time as texts became available.

The Importance of Coke and Blackstone

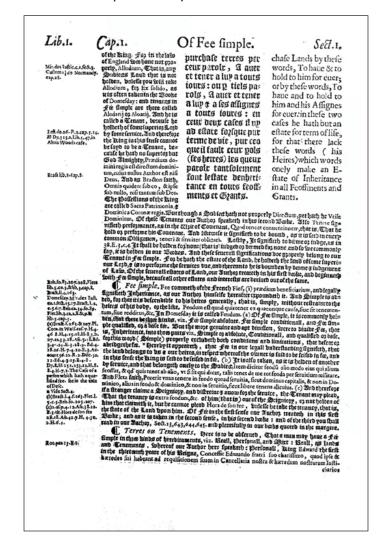


Figure 3

Coke's First Part of the Lawes of England (note the use of marginal pinpoint citation)65

¶26 Sometime after the invention of the printing press, intermediation took on a systemic aspect, particularly in legal literature. Through printing, 17th century standardized English legal texts had become stable in editions, which enabled pinpoint

^{65.} EDWARD COKE, THE FIRST PART OF THE INSTITUTES OF THE LAWES OF ENGLAND: OR A COMMENTARY UPON LITTLETON, 2 verso (3d ed. 1633), https://irlaw.umkc.edu/coke_institutes_lawes/2/(last visited Oct. 4, 2021).

citations in legal texts that bound them into a system of common authority, of which Lord Coke's *Institutes* are the prime and among the first examples (see fig. 3).

¶27 Print technology permits Lord Coke's works to operate on at least two levels with respect to visual signs. First, Coke's treatises are visually rendered to emphasize supporting authority through marginal, pinpoint citations to authority. Second, they are arranged in such a way as to connect them to glossed manuscripts, constituting authority in prior era. In early 17th century England, Lord Coke found an information environment favorable to publication and abundant in stabilized texts. Through unprecedented use of marginal cross-referencing to diverse sources (made possible by stabilized texts), Coke creates a web and appearance of authority sufficient to stand on its own, even without royal sanction. Coke's extensive use of marginalia is unprecedented, at least for English legal texts. Thus,

[b]y its appearance, the *Institutes* establishes a web and weight of authority. . . . [T]he layout of Coke's first part of the *Institutes*, the *Commentaries upon Littleton*, visually replicate the glossed manuscript texts of Justinian, which will only serve to reinforce the authority of the *Institutes*. The subject of the work, *Littleton's Land Tenures*, is paralleled with Coke's translation into English (itself a major departure from the past), then surrounded by Coke's extensive annotations, and finally garnished (a distinction from Justinian) with marginal references to other authority, such as Bracton, Britton, and Fleta. The visual effect is one of weighty scholarship and authority of the same stature as Justinian's works. The technology of print not only allows Coke to cross reference with precision but to replicate prior forms of authority.⁶⁶

¶28 Coke, using the print technology of the time and stabilized editions of legal texts, was able to create a web of authority and connect to perhaps the most important legal texts of the prior legal age—those authored by Emperor Justinian,⁶⁷ whom Coke replicated. It is an epistemic exercise following the tradition of scholasticism as an epistemology. To the extent Coke lays out a system of nonconflicting principles in his *Institutes*, it is also an exercise in rational epistemology.

¶29 We have already mentioned American patriot John Rutledge's admonition to his brother while studying at Temple Inn to read the classics, especially Lord Coke and Blackstone.⁶⁸ Of Lord Coke and Lord Blackstone, it was the former who had a much greater effect on revolutionaries, but in 17th-century England:

With it [the Institutes] the lawyers fought the battle of the constitution against the Stewarts; historical research was their defense for national liberties. In the Institutes . . . the tradition of the common law from Bracton and Littleton . . . made famous, firmly established itself as the basis of the constitution of the realm. 69

^{66.} Callister, supra note 9, at 66–68.

^{67.} See the image of Justinian's Digestum Novum in the Shoyen Collection, at Justinianus: Digestum Novum, The Soyen Collection, https://www.schoyencollection.com/law/roman-law/iustinianus-digestum -novum-ms-219 (last visited Oct. 4, 2021) (although the resolution of the images makes study difficult—it helps to download the image, note the tiny alphabetical enumeration of the marginal gloss, but lacking any indication of cross-referencing, and any visible indication of citation to other sources).

^{68.} See supra notes 48 through 54 and accompanying text.

^{69.} Printing and the Mind of Man 76 (John Carter & Percy H. Muir eds., Karl Pressler 2d ed. 1983) (1967).

By the mid-17th century, events had further degenerated into pamphlet wars, and civil war

literature was part of the crisis and the revolution, and was at [the English Civil War's] epicentre. Never before in English history had written and printed literature played such a predominant role in public affairs, and never before had it been felt by contemporaries to be of such importance: "There had never been anything before to compare with this war of words. It was an information revolution."

¶30 Coke's conception of his *Institutes of the Laws of England* came at this revolutionary juncture in English history and would have been of more inspiration to the American colonists than Blackstone's work. Blackstone's *Commentaries on the Laws of England*, on the other hand, may have reinforced ideas seminal to the constitution, such as the division of powers, but was not a revolution-inspiring document. However, the *Commentaries*' position as an authority on the common law was more firmly established in 1787 than in 1776. Accordingly, it is not surprising that there are many more references to the *Commentaries* during the period of the constitutional debates than there were during the revolutionary struggle. But it should be emphasized that the *Commentaries* were rarely cited as an authority on the merits of a proposal; the *Commentaries instead acted as a convenient reference work—as authority for the way things were, not for the way they ought to be.* Blackstone's work would be more instructive of what the law is, and that is what Blackstone's *Commentaries* were designed to do.

¶31 Blackstone's *Commentaries* was probably the one law book that accounts for more impact on formal and informal legal education in the colonies and 19th century America. Blackstone's *Commentaries* were first published in four volumes between 1765 and 1769.⁷³ The book sold rapidly in America, including a published edition in Philadelphia in 1771–1772,⁷⁴ and by 1790 had "sold nearly as many copies in the American colonies as in England."⁷⁵ St. George Tucker, an early law professor at the University of William and Mary, prepared an edition for American audiences in 1803 that considered Virginia and federal law.⁷⁶ Thus,

[Blackstone's] influence was more direct and more powerful on American legal education than upon the American political system or the American courts. That influence took forms he did

- 70. NIGEL SMITH, LITERATURE AND REVOLUTION IN ENGLAND 1640-1660, at 1 (1994).
- 71. See supra note 54 and accompanying text (quote referencing Lord Coke).
- 72. Dennis R. Nolan, *Sir William Blackstone and the New American Republic: A Study of Intellectual Impact*, 51 N.Y.U. L. Rev. 731, 744–45 (1976) (emphasis added). "He did not bring about the Revolution or even contribute significantly to the Declaration of Independence. His contribution to the Constitution and the debates over its adoption was limited to defining a few concepts." *Id.* at 767.
 - 73. WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND (1765-69).
- 74. WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND (R. Bell printer 1771–72); see also Nolan, supra note 72, at 737.
 - 75. Daniel J. Boorstin, The Mysterious Science of Law xiii (1996).
- 76. St. George Tucker, Blackstone's Commentaries with Notes of Reference to the Constitution and Laws of the Federal Government of the United States and of the Commonwealth of Virginia (Birch and Small, Philadelphia 1803) (available in Gale's *Making of the Modern Law*). For an example of notes contrasting Blackstone with Virginia law, see *id.* at 7.

not intend and would not necessarily appreciate since it extended beyond American universities to the text writers, to the apprenticeship system he so disliked and to the rude frontier villages he would have detested.⁷⁷

¶32 Indeed, the *Commentaries* have been celebrated, perhaps with exaggeration, as "an elegant and eloquent do-it-yourself guide to becoming a lawyer." Blackstone would not have advocated that his *Commentaries* replace the need for other legal works on the common law. For instance, in describing the common law as the unwritten law, it is to be known "by the judges in the several courts of justice. They are the depositories of the laws; the living oracles, who must decide in all cases of doubt, and who are bound by an oath to decide according to the law of the land." In addition, Blackstone also gave homage to court reports and classic treatises as necessary to the lawyer's library.80

¶33 Coke and Blackstone are important because they illustrate what was accepted as cognitive authority or social epistemology of the legal profession in England and America during the late 18th and 19th centuries. Not only are they touchstones in themselves, but Coke introduces a web of authority (challenging the monarchy's prerogatives in the face of law) adopting pinpoint citations to other, earlier authority, and indeed building some of his works on Littleton. The *Institutes* and *Commentaries* predate the period of specialized treatises,⁸¹ whose multiplication (along with increases in

- 77. Nolan, supra note 72, at 761.
- 78. Boorstin, supra note 75, at xiii.
- 79. 1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 62, *69 (Callaghan, James DeWitt Andrews ed., 4th ed.) (based on edition by Thomas M. Cooley) (note the notes adapting the text to American common law).
- 80. See *id* at 64–65, *71–*73. Among the reporters, Blackstone mentions Lord Coke and the year-books. He also includes Coke's *Institutes* and Glanvil, Bracton, Britton, Fleta, Hengham, Littleton, Statham, Brook, Fitzherbert, and Staundforde "whose treatises are cited as authority and are evidence that cases have formerly happened in which such and such points were determined" *Id*.
- 81. See John H. Langbein, *Chancellor Kent and the History of Legal Literature*, 93 COLUM. L. REV. 547, 585–93 (1993) (describing Kent's *Commentaries on American Law* as the end of an institutionalist tradition and the beginning of the treatise writers).

Breadth is the enemy of depth, and when breadth is no longer needed, depth will prevail. As a result, everywhere in the Western legal systems, the institutes gave way to the treatise, and that is what happened in the United States. Nobody ever again wrote a book like Kent's Commentaries, because nobody needed one. Kent gave way to the treatises of Story and Greenleaf in his own day, and in the next century, to the megatreatises of Corbin, Powell, Scott, Wigmore, and Williston.

Id. at 593. See also A.W.B. Simpson, *The Rise and Fall of the Legal Treatise: Legal Principles and the Forms of Legal Literature*, 48 U. CHI. L. REV. 632, 668–674 (1981) (description of American tradition of writing treatises).

What appears to me to have had the greatest negative effect on the treatise-writing tradition in America is the realist movement. This movement, ill-defined though it may have been, involved a skepticism and even a cynicism about the significance of legal doctrine in the determination of cases, and it has profoundly affected the attitudes of both those who practice law and adjudicate, and many of those who teach at American law schools. Judicial opinions cease to be regarded as the expression of some rational scheme of principles, but rather as material to be used to justify and cover with veneer of respectability arguments or conclusions reached on other grounds. A system of ready access to such material is all that is needed. The professional services, and more recently the on-line computer systems such as LEXIS and WESTLAW, have arisen to meet this need.

Id. at 677–78. Such a viewpoint has implications for the cognitive authority or social epistemology

reported cases and the arrival of law reviews) 82 would make law libraries much more necessary and voluminous.

Early American Libraries

¶34 We know about libraries from the early days of our democracy from such famed actions as Thomas Jefferson selling his library in 1814 to the Library of Congress when the British burned the capital in the War of 1812.⁸³ The first free library in the United States opened in 1852.⁸⁴ But other libraries existed, primarily in the northern and mid-Atlantic of the republic. Figure 4 illustrates the growth of libraries in the colonies based on published catalogs. While free libraries did not exist, social, circulating, and college libraries did. Certainly, many more libraries existed that did not publish their catalogs.

of the legal profession. It shifts us to a pragmatic attitude for authority—if it works, cite it—and away from a rational and rule-based approach.

Nonetheless, Richard Danner suggests "interpretive frameworks" for legal information are still necessary despite Simpson's conclusions:

[N]o one in the twenty-first-century United States "feels the need to bury their noses in heavy tomes of treatise learning." Solutions for information-inundated lawyers and judges are unlikely to be found in new print tomes (or even in their digitized equivalents). Where will lawyers and judges find new forms of interpretive frameworks? Electronic search engines, despite their power and sophistication at aggregating data, are less successful at providing structure and context for information and continue to rely on the research skills of searchers and the knowledge they bring to the task.

Richard A. Danner, 2013 Survey of Books Related to the Law: Foreword: Oh, The Treatise!, 111 MICH. L. REV. 821, 834 (2013) (emphasis added). Despite his criticism of reliance upon electronic search engines, Danner concludes optimistically: "Twenty-first-century Blackstones will be technologically literate legal scholars who understand the relationships between form, content, and structure, and who possess the skills to present legal information in innovative ways appropriate to the formats in which information is now published, identified, and delivered." Id. We agree.

- 82. Danner, supra note 81, at 828-29.
- 83. *Jefferson's Library*, LIBR. OF CONGRESS, https://www.loc.gov/exhibits/jefferson/jefflib.html (last visited Oct. 4, 2021). Unfortunately, a second fire in 1851 destroyed two-thirds of the volumes Jefferson sold to the Library of Congress. *Id*.
- 84. Louis Ingelhart, Press and Speech Freedoms in America 1619–1995: A Chronology 83 (1997).

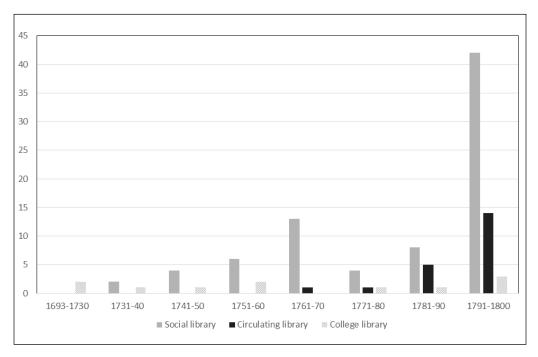


Figure 4American Catalogs of Books, 1693–1800, by Type of Library and Date of Publication⁸⁵

What is noteworthy is the sudden surge in published catalogs with *social* libraries in the period just before the Revolution during 1761–1770, followed by a depression in the Revolutionary War years, a recovery during 1781–1790 (including the emergence of *circulating* and *college* libraries), and an explosion after 1791 in all three categories. Only a handful of college libraries published catalogs during this period, perhaps reflecting the practice that students were well enough off to buy their own books.

¶35 Again, the number of libraries in existence in the colonies must have been much greater, simply because most may not have published their catalogs (although doing so would have helped subscribers and users know what items were available because there were, as yet, probably no card catalogs). Many libraries may have been tiny enough that only one librarian was needed to find what was available. Most libraries, if we may call

^{85.} Data compiled from Robert B. Winans, A Descriptive Checklist of Book Catalogues Separately Printed in America 1693–1800, at xviii, tbl. 1 (1981). A social library is a subscription library with members, such as the Library Company of Philadelphia. In 1733 Benjamin Franklin was asked to print a catalog for each subscriber. *Id.* at 11. A good example is the Salem Social Library (1760–1810), later turned over to Salem Athenaeum in 1810. *Salem Social Library*, Wikipedia, https://en.wikipedia.org/wiki/Salem_Social_Library (last visited Oct. 4, 2021). A circulating library differed in how it accrued funds. It would lend out books to anyone who paid the requisite fee for borrowing an item. *See*, *e.g.*, Winans, *supra* (entry for John Mein's catalog and his circulating library describing the terms of borrowing "[w]hich are lent to read, at one pound eight shillings, lawful money, per year; eighteen shillings per half-year; or, ten and eight pence per quarter . . . ").

them that, were private collections in family homes. These private collectors relied on the published catalogs of book sellers and auctions, the former of which were more prevalent than even social libraries in 1781–1790, by a factor of over three times. We also know that the states that led the number of publications were Pennsylvania, Massachusetts, and New York. The three states accounted for 53 of the 79 social library catalogs and 17 of the 21 circulating library catalogs published from 1693 to 1800. The South, with its plantations and lack of urbanization, may have relied more heavily on the private libraries of its estates. "The South, not unexpectedly is poorly represented, not because it lacked books, or learning and culture, but rather because its scattered planters, located far from central market towns most likely tended to order goods directly from England." Cities and "market towns" were more likely to produce libraries.

¶36 Regarding the South, Paul was given access in 2007 to the rare books of the Missouri Supreme Court Law Library and allowed to photograph some of them. Paul was surprised to find *Statham's Abridgement* (circa 1490s) in the collection (see fig. 5), the oldest printed book on English law (other than perhaps the *Year Books*), although printed neither in English nor in England but in Normandy. He also found early editions of Bacon, Bracton, Cowel, Selden, and others.



Figure 5
Printer's Mark from Statham's Abridgement at Missouri Supreme Court Library in Jefferson City, Missouri

^{86.} Winans, supra note 85, at xviii, tbl. 1.

^{87.} Id. at xix, tbl. 2.

^{88.} Id.

^{89.} Id. at xviii.

^{90.} Percy H. Winfield, *Abridgments of the Year Books*, 37 Harv. L. Rev. 214, 224–25 (1923). My edition was marked with a card stating it was published in 1470, which is unlikely. Photos in my possession reveal it was published for Richard Pynson and has a printer's mark from a Norman printing firm, Tailleur from Rouen, possibly because these works were in Norman French. *See* Ames Found., A Bibliography of Early English Law Books, at 105 no. R 455, 111 no. T 5, 187–88, 214 fig.2, and Sweet & Maxwell, 1 Sweet & Maxwell's Complete Law Book Catalogue 117, no. 14, 292, no. 50 (W. Harold Maxwell comp. 1925).

Paul asked the Supreme Court librarian how these books ended up in central Missouri. He was told that many of the earliest Missouri lawyers came from Virginia (and had built their collections from England) and brought their collections with them.⁹¹ The colonial South, lacking libraries, still managed to possess extensive legal collections, even without the aid of libraries.

¶37 What might these social and circulating libraries contain during the time of the drafting of the Constitution? Well, for instance, the 1786 catalog for the Annapolis Circulating Library had nearly 1500 items, including "agriculture, arithmetic, astronomy, biography, chymistry, commerce, gardening, geography, history, husbandry, *law*, military affairs, mathematics, navigation, painting, physic, rhetoric, surgery, surveying, voyages, travels, plays, novel, magazines &c."92

¶38 In 1800, the Library of Congress was established with an appropriation from President John Adams of \$5000 for books, which purchased 740 volumes and three maps. The British burned the library in 1812, and in 1814 Thomas Jefferson sold his personal library of 6487 volumes to the Library of Congress. In 1851, another fire destroyed two-thirds of the library's 55,000 volumes. Money was quickly appropriated to restore the collection. Even at the end of the Civil War, it contained about 80,000 volumes. Andrew Rand Spofford is credited with establishing a world-renowned library, reorganizing the Library of Congress in 1897 with bipartisan congressional support for a library that served both legislative and national functions. He also revived the practice of copyright deposit as a requirement for authors seeking copyright. Today, "with collections totaling more than 100 million items, a staff of nearly 5,000 persons, and services unmatched in scope by any other research library, the Library of Congress is one of the world's leading cultural institutions."

¶39 We cannot adequately treat here the importance of all libraries to democratic society. Philanthropist Andrew Carnegie certainly understood this relationship and became the champion and root of the American public library.⁹⁹ More recently, the

^{91.} See supra notes 50 through 56 and accompanying text (discussion of the importance of reading books, particularly law books, in legal education of the time).

^{92.} Winans, supra note 85, at 78 (entry "110 CLARK, STEPHEN").

^{93.} *Jefferson's Legacy, A Brief History of the Library of Congress*, Libr. of Congress (Mar. 30, 2006), https://www.loc.gov/loc/legacy/loc.html (last visited Oct. 4, 2021).

^{94.} Jefferson's Library, supra note 83.

^{95.} Jefferson's Legacy, supra note 93.

^{96.} *Id*.

^{97.} Id.

^{98.} Id.

^{99.} Carnegie's vision about public libraries was about democracy and equality:

The public library fit neatly into Carnegie's social thought. He frequently described it as a democratic and democratizing institution. Within its walls as within the American republic there were to be no artificial restrictions, no ranks, no privileges, no classes; but he considered the library much more than a microcosmic democracy. "Free libraries maintained by the people are cradles of democracy," Carnegie told an audience at the dedication of the Washington D.C., Public Library, "and their spread can never

president of the Carnegie Corporation of New York praised libraries as essential to democracy: "In both the actual and symbolic sense, the library is the guardian of freedom of thought and freedom of choice, standing as a bulwark for the public against manipulation by various demagogues. Hence, it constitutes the finest emblem of the First Amendment of our Constitution." ¹⁰⁰

Academic American Law Libraries

¶40 Harvard Law School had a library when the school was founded in 1817, but it was Dean Christopher Langdell in 1870 who introduced the radical notion of no longer providing students with individual textbooks but instead assigning them readings within the library's collected law reports. ¹⁰¹ He hired the first full-time librarian. By the turn of the century, the library had more than 6000 volumes. ¹⁰² By 1988, the library had 1.45 million volumes. ¹⁰³

¶41 Harvard Law School has always led the way in collections and methods. But throughout the 20th century and into the 21st century, the collection efforts of academic law librarians continued, in part as driven by ABA data collection efforts.

fail to extend and strengthen the democratic idea, the equality of citizen, the royalty of man." Libraries were to be missionary outposts spreading word of American Democracy and individualism throughout the land even as by deed they put those ideals into practice.

Peter Mickelson, American Society and the Public Library in the Thought of Andrew Carnegie, 10 J. LIBR. HIST. 117, 121 (1975).

^{100.} Vartan Gregorian, From the President, Power Houses, Carnegie Rep., Fall 2019, at 3, 3.

^{101.} History of the Harvard Law School Library, HARV. L. SCH., https://hls.harvard.edu/library/about-the-library/history-of-the-harvard-law-school-library/ (last visited Oct. 4, 2020).

^{102.} Id.

^{103.} For the sake of brevity, we are skipping over the important contributions of institutions like American Association of Law Libraries, the Association of American Law Schools, and the American Bar Association to the development of academic law libraries. See Jessie Wallace Burchfield, Tomorrow's Law Libraries: Academic Law Librarians Forging the Way to the Future in the New World of Legal Education, 113 Law Libr. J. 5, 8–9, 2021 Law Libr. J. 1, ¶¶ 5–7.

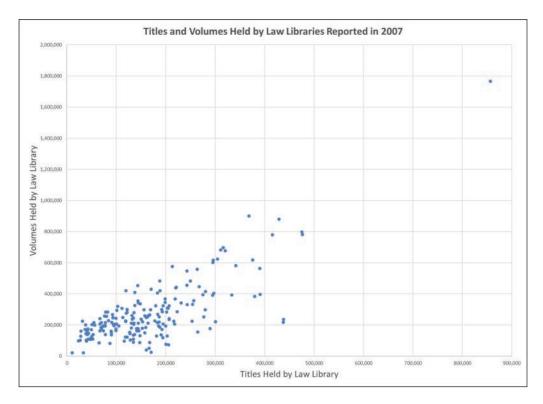


Figure 6 Titles and Volumes Held by Academic Law Libraries as Reported to the ABA in 2007 104

Figure 6 shows one outlier library with close to 1.8 million volumes and 900,000 titles. However, the mean for titles held was 167,326 and for volumes was 468,106. Much of the upward pressure on titles and volumes was driven by reporting to *U.S. News & World Report* because such statistics were used in their formula to rank law schools. This pressure weakened libraries when they inevitably faced the real changes to their information environment brought about by online technologies. Libraries were figuratively two-dimensional in their planning, driven by title and volume counts.

¶42 At the time, spending per law student was quite high (averaging \$1928), but the range of spending per student varied widely with student body size.

^{104.} The source of this data is the Summary of Law School Library Statistics Reported to the ABA (2007), https://umkc.box.com/s/puo6l0hh2ervq4m5urejy4eu5kflh02z (last visited Oct. 4, 2021). We have anonymized the information.

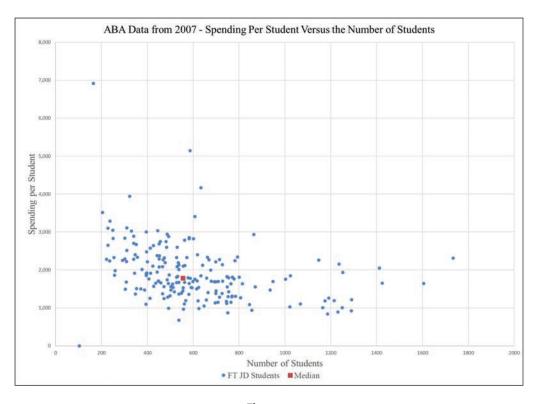


Figure 7

ABA 2007 Data for All Law Schools: Number of Students Compared to Spending per

Student¹⁰⁵

As of 2007, law libraries spent a wide range of dollars per student even when varying class size. Figure 7 reflects how some large schools invested less heavily per student because of economies of scale. On the other hand, some small schools invested heavily in library materials to have the same breadth of collection as larger schools. Competition was certainly a factor, as *U.S. News & World Report* included collection sizes in its calculations of rankings. For 2007, the median spending was \$1785 per student with a student body size of 555 students. Again, this two-dimensional thinking trapped libraries as they faced the changes brought about by new technologies in an evolving information environment. The ecological and holistic Deibert approach to analysis is crucial to understanding the library's trajectory and evolution. That pressure to spend and add to collections was largely removed once the ABA stopped requiring the data in 2009; 106 the Great Recession of 2007–2009 contributed also to this lessened

^{105.} Id. We have anonymized the information.

^{106.} We wish to thank Kevin Gerson, Director of UCLA's law library, for locating this information.

pressure.¹⁰⁷ Since so much of a law library's collection relies on access through subscription databases, these factors led to a decrease in the purchase of materials (although this is hard to document because of the lack of ABA data).

¶43 During the last decade, the UMKC Law Library has experienced a dramatic decline in the number of items borrowed and lent (really an indicator of information use) from the library's local MOBIUS consortium (which includes patron-initiated delivery, a union catalog, 4 academic law libraries, more than 77 other libraries, and 29 million items) (see fig. 8).¹⁰⁸ For example, the UMKC Law Library declined in items borrowed from 974 to 164 annually in a little more than a decade.¹⁰⁹ This phenomenon is hardly unique to UMKC Law. Indeed, the entire MOBIUS consortium of 77 libraries is experiencing a decline (in a period when it was adding more libraries to its membership).

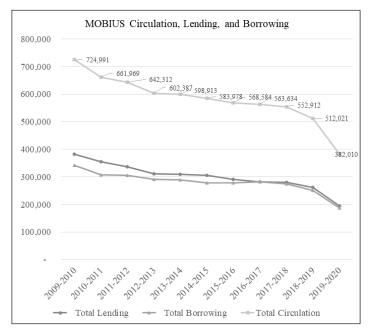


Figure 8
MOBIUS Libraries Circulation, Borrowing, and Lending¹¹⁰

However, U.S. News & World Report continues its collection of this data.

^{107.} See The Great Recession, INVESTOPEDIA (reviewed Oct. 23, 2020), https://www.investopedia.com/terms/g/great-recession.asp (last visited Oct. 4, 2021).

^{108.} See More About Mobius, Mission & Vision, MOBIUS LINKING LIBRS., https://mobiusconsortium.org/about-mobius (last visited Oct. 4, 2021).

^{109.} For an illustration of Paul's library, see figure 20 below.

^{110.} The source for the data is *Historic Borrowing and Lending Statistics Reports*, MOBIUS LINKING LIBRS., https://mobiusconsortium.org/node/279 (last visited Oct. 4, 2021). The four academic

Students and faculty (and especially UMKC's law students and faculty) are simply not borrowing items to the same extent they were in previous decades.

¶44 Figure 9 shows another university's experience. Although nowhere near the circulation activity of the MOBIUS consortium, Columbia University has had strong volume in library checkouts but was deeply impacted by the pandemic.

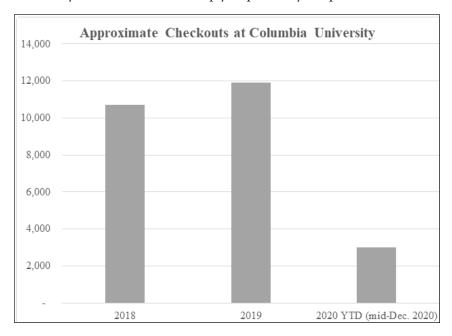


Figure 9
Approximate Columbia University Library (Nonlaw) Checkouts

¶45 Is the phenomenon caused by decreased purchases of relevant print materials across the system or more reliance on electronic databases in the MOBIUS and Columbia systems? How have Google, *Wikipedia*, and the web played roles? What is the role of e-books, arriving in the last half of the decade? Certainly, 2019–2020 was affected by the pandemic and the shutdown of library operations. It is hard to know exactly what is going on. In any case, libraries find themselves in a new information environment that challenges their role with respect to cognitive authority and social epistemology.

Libraries and "Cognitive Authority"

¶46 The current pandemic's lockdown, and then the digital or hybrid teaching models, have suddenly created new venues for libraries. Law schools and their libraries can create closer partnerships in leveling the playing field in accessing information, especially for students who are particularly vulnerable in access to even their basic educational texts. Librarians can help reshape "cognitive authority" for legal education and scholarship by facilitating open access publishing texts. Librarians can do it as Rice University does it with OpenStax textbooks. 111 Librarians can do it in partnership with Amazon's print on demand, 112 as Professor Lisa Heinzerling did it with her most recent textbook, Food Law: Cases and Materials (2019). 113 Or, we can do it as Columbia Law Library did it¹¹⁴ when it published Katharina Pistor's Law in the Time of COVID-19¹¹⁵ on the law school's scholarship repository, which is managed by the law library. From April 20, 2020, until November 16, 2021, Pistor's book has been downloaded 18,548 times worldwide. 116 Other schools have used their Digital Commons 117 platforms (usually managed by libraries) to offer open access textbooks118 as well as law reviews and faculty papers. 119 For example, University of Missouri School of Law has an even more developed publishing experiment with five open access books published on its digital repository. 120

¶47 While a two-way street (it is library users who must convey trust), the institutional epistemic foundation of libraries has a long history based on cognitive authority. For instance, from the beginning of their existence, in an era when information was

^{111.} See Openstax, https://openstax.org/ (last visited Oct. 4, 2021).

^{112.} What Is KDP?, KINDLE DIRECT PUBL'G, https://kdp.amazon.com/en_US/help/topic/G202059560 (last visited Oct. 4, 2021).

^{113.} LISA HEINZERLING, FOOD LAW: CASES AND MATERIALS (2019), https://wrlc-gulaw.primo.exlibrisgroup.com/permalink/01WRLC_GUNIVLAW/1lqejh8/alma991011028908004113 (last visited Oct. 4, 2021).

^{114.} For details, see Dana Neacsu, *The Publishing Silver Lining of COVID-19: New Opportunities for Institutional and Professional Relevance*, AALL New Voices (June 2020), https://www.aallnet.org/wp-content/uploads/2020/06/New-Voices-_-June-2020-Dana-Neacsu.pdf (last visited Oct. 4, 2021).

^{115.} Katharina Pistor, Law in the Time of COVID-19 (2020), https://scholarship.law.columbia.edu/books/240/ (last visited Oct. 4, 2021).

^{116.} See infra notes 243–246 and accompanying text for a more in-depth discussion of the publishing aspect of the library's academic role.

^{117.} Digital Commons is an Elsevier (formerly BePress) platform for scholarly repositories and publishing; *see Digital Commons*, BEPRESS, https://bepress.com/products/digital-commons/ (last visited Oct. 4, 2021).

^{118.} See, e.g., Faculty Books, Univ. Mo. Sch. L., Scholarship Repository, https://scholarship.law.missouri.edu/fac_books/ (last visited Oct. 4, 2021).

^{119.} See, e.g., Duquesne University's Digital Commons, managed by both Gumberg Library and Duquesne Center for Legal Information. For more, go to https://guides.library.duq.edu/impactchallenge/oa (last visited Oct. 4, 2021).

^{120.} Faculty Books, supra n.118.

scarcer than today and when libraries flourished, they did more than provide access to that information. Their very acts of purchasing some items over others, and how they classified items with bibliographic information, established what items should receive our trust and become "cognitive authority." This was a very important role in society. Libraries divided up the fields of knowledge on agreed-upon lines that delimited fields for research and knowledge.

¶48 The dominion that libraries held, like the encyclopedias, continues, but it is challenged by new technologies. Google and other search engines challenge the taxonomic expertise libraries use to create collections or organize knowledge. Like libraries, all search engines rest on the power of indexing, library creation. Indeed, Google and Yahoo! hired librarians as indexers to facilitate their organization of knowledge and make information accessible. li22

¶49 That is why back in 2013 Dana argued that Google was not a professional threat to libraries. While Google used the correct approach—organizing, categorizing, and labeling information in a way that eases access—it lacked what we call *epistemic expertise*, our professional *emotional cue*. Academic knowledge, scholarly work—at least in its Western version—builds on existing well-indexed and accessible work. To research it, then, the fastest way is by using indexes, which offer controlled searches incorporating topics deemed relevant for a scholarly area. Library catalogs are basic indexes. Google incorporates basic library trade, and it goes much further with its proprietary search algorithms. Knowledge users have adopted Google, but not for all their searches. True, until the digitization revolution, the library's physical collection represented the academic emotional cue one sought for expert knowledge. But, today, when so much information is digitally available, a mere index search limited to one academic

^{121.} See, e.g., How Google Search Works: Indexing, GOOGLE SEARCH CENT., https://developers.google.com/search/docs/beginner/how-search-works#indexing (last visited Oct. 4, 2021).

After a page is discovered, Google tries to understand what the page is about. This process is called indexing. Google analyzes the content of the page, catalogs images and video files embedded on the page, and otherwise tries to understand the page. This information is stored in the Google index, a huge database stored in many, many (many!) computers.

^{122.} Dana is acquainted with librarians hired by Google and Yahoo!.

^{123.} Dana Neacsu, The Internet: Academic Foe or Friend, AALL Spectrum, Feb. 2013, at 25, 25-26.

^{124.} People rely on what Dana calls *emotional cues*, which are shortcuts pregnant with meaning because they come with embedded consumer trust in the product they represent, whether food for the body or food for thought. Companies employ such shortcuts to convey perceived consumer strength. Economists call it "signaling." The public calls it "branding" or "market identity," and it helps people choose everything from baby formula to, as argued here, research data. For those with a legal bent, trademarks perform the same function. *See id.* at 26.

^{125.} Id.

^{126.} For example, an emotional cue for Paul of a library collection is the library reading room at Cornell Law School, where he went to school. Similarly, for Dana it is the Widener Library where she spent her time reading ecclesiastic legal documents for her European legal history class with Charles Donohue.

library's holdings has become inadequate. For instance, to exude expertise and credible knowledge shortcuts, today's index searches need federated searches—to connect collections and make accessible library content that goes beyond the mere title, author, and keyword field. Today's research expertise has to impress Internet users for whom Google searches are deficient. Today's emotional cues have evolved into the *Google-like* single search bar of a federated search. ¹²⁷ For example, the homepage of UMKC's Miller Nichols Library has a single search bar that is a federated search (including periodical articles with the traditional materials of the catalog) (see fig. 10).

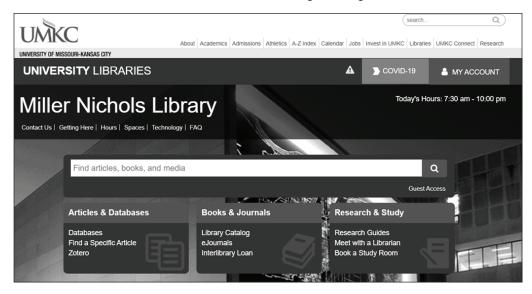


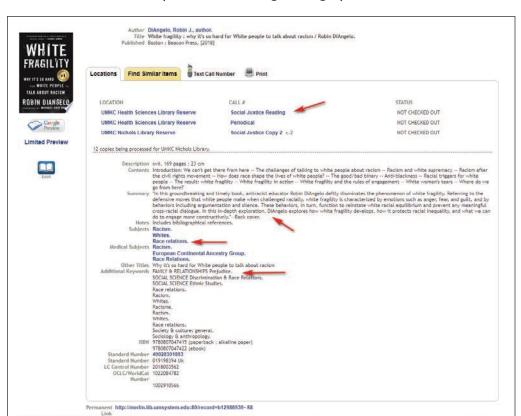
Figure 10UMKC Miller Nichols Library's Federated, Single Search Bar¹²⁸

In the next section, we see one response to Dana's criticism¹²⁹ of libraries' perceived lack of epistemic nimbleness: expert taxonomy.

^{127.} Furthermore, the first search bar on Westlaw Edge or Lexis+ offers a federated search of all its holdings, which can then be narrowed by selecting filters.

^{128.} See UMKC MILLER NICHOLS LIBR., https://library.umkc.edu/ (last visited Oct. 4, 2021).

^{129.} See Neacsu, supra note 123, at 25-26.



An Example from a Catalog Bibliographic Record

Figure 11Bibliographic Record for *White Fragility*

¶50 The bibliographic record in figure 11 tells a unique story about the epistemic authority of libraries based on their ability to categorize items into fields for study. As shall be seen, this ability has adapted to the Internet. The topmost arrow marks not only which university library has the item *White Fragility*, but that it is in a special location dedicated to Social Justice Reading. The next arrow shows that the bibliographic record also has a summary about what the book is about, taken from the back cover of the book. Next, the subject fields show the book has three subjects that characterize the book and that link to other similar items. They are *Racism*, *Whites*, and *Race relations*. The cataloger (really a society of catalogers) has defined how the book fits into various fields of study using the Library of Congress Subject Headings (LCSH).

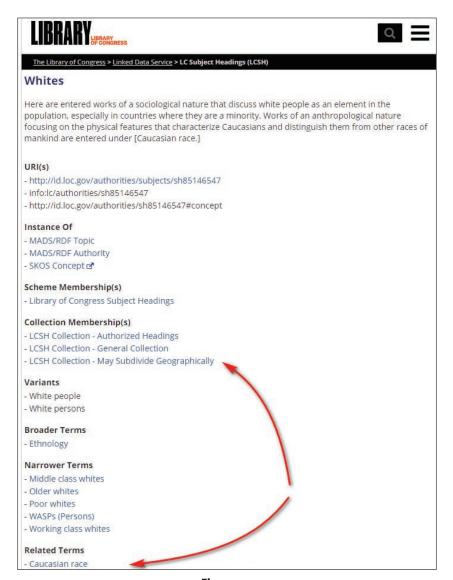


Figure 12

Library of Congress Subject Heading Bibliographic Information for Subject "Whites" 130

¶51 Note that under the LCSH for *Whites*, a whole system of defining the concept, and hence the field, has been put into place with rules such as the subject may be divided by geography, acceptable variants, the broader term of *Ethnology*, a list of

^{130.} Whites, LC Subject Headings (LCSH), LIBR. OF CONGRESS, https://id.loc.gov/authorities/subjects/sh85146547.html (last visited Oct. 4, 2021).

narrower terms or concepts, and a related term of the *Caucasian Race*. By scrolling down the page in figure 12, the user finds a list of narrower but related concepts from other fields (see fig. 13).



Figure 13
LCSH Narrower Concepts from Other Schema for "Whites"

What the LCSH does is establish the ethnography for the subfield of *Whites*. It also establishes the field of *ethnography*. Every item in the collection must fit into a carefully worked out construct of genus, relatives, subcomponents, related concepts from other fields, variants, and so on. What is important is that the LCSH and other taxonomies like it (e.g., for periodical articles or specialized fields) work out how scholars and scientists see and view their worlds of study. It also creates definition and boundaries to the social epistemology or cognitive authority that is acceptable for those endeavoring in human knowledge, including the profession of law. If you don't believe us, just look up the LCSH heading for *Torts*, ¹³¹ which is quite a bit more extensive than for *Whites*. It has 46 "Narrower Terms" spanning the subject.

 \P 52 Finally, see figure 11 again. Additional key words based on FAST (Faceted Application of Subject Terminology) 132 in the bibliographic record also illuminate the item with descriptive terms using a simpler taxonomy than LCSH subject headings, but further defining where *White Fragility* fits within the domain of knowledge. 133 FAST

^{131.} Torts, LC Subject Headings (LCSH), LIBR. OF CONGRESS, https://id.loc.gov/authorities/subjects/sh85136182.html (last visited Oct. 4, 2021).

^{132.} See Research, FAST (Faceted Application of Subject Terminology), OCLC, https://www.oclc.org/research/areas/data-science/fast.html (last visited Oct. 4, 2021). FAST originated as a joint research project of OCLC's Cooperative Online Resource Catalog (CORC), which endeavored to adopt a "simple, low-cost, low-effort approach[] to describing web resources (e.g., using Dublin Core)." *Id.* Having said that, it has 1.8 million headings of its own.

^{133.} We thank Garth Tardy, Metadata Librarian, at UMKC's Miller Nichols Library for information on the keywords, which are found in MARC field 650 7 and are the OCLC Subject Added Entry

descriptors were a response to developments in metadata and the web.¹³⁴ The point is that before the web, libraries had almost exclusive control over how an item such as *White Fragility* fit into the various domains of knowledge. However, even with development of the web, librarians working in the field of metadata exerted efforts to lend their expertise to the categorization of knowledge through taxonomies like FAST. Returning to *White Fragility*, working backwards, items classified under *Racism* framed the field for study for scholars.

¶53 Pre-web, librarians had the unchallenged epistemic authority to define knowledge domains. In a way, we could say that librarians held a monopoly on this type of cognitive authority. Nowadays, cognitive authority needs something more than the anonymous basic organization by subject. For instance, Google searches today "involve both live tests and thousands of trained external Search Quality Raters from around the world." Additionally, as any specific search will show, Google also incorporates user aggregators like Yelp or Facebook in its relevance ranking. We call this "anonymous value-added by users." To this extent, Google relevance is a matter of crowd "clicking" in addition to its algorithmic factors. 136

¶54 Thus, if the first wave of digitalization relied more on user-added value (see the example of Wikipedia), today, even by Google standards, this is insufficient. Users are becoming more sophisticated in terms of trusting their search results and thus more demanding of what we call the "signal of confidence," "epistemic trust," or "emotional cue." We associate this trust with cognitive authority. Using the library catalog of large academic library collections offers that signal of confidence, to a certain degree. As shown above, that trust and confidence seem connected to librarians who add key words and descriptors that go way beyond the title, author's name, and year of publication. That adds enormous value to knowledge organization and access. But for these "cues" to work, deans and AALS presidents hold the key to law libraries' emotional cue. For example, this article is an argument that libraries should receive a more prominent place on each law school's website. Dana remembers that when she wrote her AALL Spectrum article in 2013, both Harvard University and Harvard Law School (HLS) listed their library links under their resource offices. Today, we are happy to note that the portal to one of our best academic law libraries, at Harvard, is no longer hidden beyond the more generic concepts of Resources and Offices, as it was in 2013.¹³⁷ Its place now

⁻ Topical Term. See OCLC, Support & Training, Subject Added Entry-Topical Term (R), https://www.oclc.org/bibformats/en/6xx/650.html (last visited Oct. 4, 2021).

^{134.} Id.

^{135.} How Search Algorithms Work, GOOGLE SEARCH, https://www.google.com/search/howsearch works/algorithms/ (last visited Oct. 4, 2021).

^{136.} *Id*.

^{137.} While now the library portal can be accessed from the Harvard University homepage, in 2013 the only entry point was through the *Resources and Offices* page; *compare* https://web.archive.org/web/20130116035147/http://www.harvard.edu/ with https://web.archive.org/web/20130116045121/http://www.harvard.edu/resources-offices (last visited Oct. 4, 2021).

is at the front of the HLS page, next to Admissions, Academics, Faculty, and Careers. ¹³⁸ Libraries are omnipresent. Neither their power structures nor our cognitive authority is easily sloughed off in the Internet age.

Libraries as Knowledge Institutions

¶55 Having spent considerable effort on the epistemic role of libraries, it is time to consider their institutional role, specifically as knowledge institutions. From Deibert's model, we have observed:

Relationship of law and legal publishing descend into oligopolies. Market disrupters leverage new technologies but without good access to secondary, editorial material characteristic of the major vendors. [There is a] transition of libraries from print collections to online/AI technologies. Rise of open access movements and online repositories both not-for-profit and for profit.¹³⁹

To this we might add there is connection between new information institutions arriving with the web and the social epistemology (scholastic and authoritarian in nature) traditionally claimed by library catalogs and resources, including in the field of law.

Impact of Web Knowledge Institutions and Anti-authoritarianism

¶56 Needless to say, with the web and the arrival of various wikis, *Wikipedia*, Reddit, and Twitter, they seem at first glance to let users lay out a domain of knowledge based on how they see fit, according to their social epistemology. But the truth is more subtle. In his wonderful book, *The Anarchist in the Library*, Siva Vaidhyanathan lays out the characteristics of what he would call "peer-to-peer ideology":

- End-to-end design
- Decentralization
- Anti-authoritarianism
- Difficult to manage
- Extensibility¹⁴⁰

Libraries, and especially vast online union catalogs among library consortia, may fit many of these facets, but what Vaidhyanathan says about anti-authoritarianism and the web's actors is of most interest to us. "They are antiauthoritarian. There may be guides, mavens, or experts who contribute more to the system than others do. But no one person or committee can turn the system off or remove participants. There is no discernible command-and-control system." For Vaidhyanathan *authority* may be bypassed in peer-to-peer systems (and the web) because of the reliance on *protocols* over *controls*. So,

^{138.} HARV. L. Sch., https://hls.harvard.edu/ (last visited Oct. 4, 2021).

^{139.} See supra figure 1.

^{140.} SIVA VAIDHYANATHAN, THE ANARCHIST IN THE LIBRARY 17 (2004).

^{141.} Id.

[a] protocol is a handshake. It's a way for different actors to agree on rules of engagements, habits, traditions, or guidelines. If one or the other actor breaks or ignores the protocol, the communicative act fails. If one actor abrogates the terms of a protocol, it will lose the trust of the others. Protocols should be simple enough to allow a diverse array of actors to work with them. They should be flexible enough to allow a variety of interactions over a network or through a system. Controls, on the other hand, are coercive measures imposed by one actor on another. If a protocol is a handshake, a control is a full nelson. 142

How do libraries compare to peer-to-peer systems? Libraries have long used protocols to cooperate in the sharing of bibliographic information and providing services such as interlibrary loan (ILL) (consider WorldCat and Worldshare Interlibrary Loan offered by the library member–driven OCLC). Indeed, libraries are facilitated in their use of protocols and consortia (end-to-end design) by the web. In this respect, they were ready for the web and are a "species" of institution that thrives more readily in the information environment brought about by the web.

¶57 There are other respects in which libraries and librarians thrive on the web. Some of the *mavens* (mentioned as the anti-authoritarian alternative by Vaidhyanathan) that engage with systems like *Wikipedia*, Reddit, and Twitter are librarians. As mentioned earlier, metadata librarians have developed systems like FAST, to provide simpler classification systems for material on the Internet. And then there are Internet manifestations of libraries like Google Books, 44 the HathiTrust, 45 and the Internet Archive (especially the Open Library), 46 each rich repositories of library materials, all library institutions made possible by the information environment of the web. As an interesting transition from physical to digital, the Open Library had initiated a practice of lending one digital copy of any physical book (regardless of copyright) in its collection, but during the early weeks of the pandemic in 2020, it waived the single copy rule and distributed unlimited copies. It was promptly sued by four publishers for both the original practice and the lending without limits during the pandemic. 47

^{142.} Id. at 33.

^{143.} See supra note 132.

^{144.} GOOGLE BOOKS, https://books.google.com/ (last visited Oct. 4, 2021).

^{145.} HATHI TRUST DIGITAL LIBR., https://www.hathitrust.org/ (last visited Oct. 4, 2021).

^{146.} Open Libr., https://openlibrary.org (last visited Oct. 4, 2021); see also Timothy B. Lee, Internet Archive Offers 1.4 Million Copyrighted Books for Free Online, Ars Technica (Mar. 28, 2020), https://arstechnica.com/tech-policy/2020/03/internet-archive-offers-thousands-of-copyrighted-books-for-free-online/ (last visited Oct. 4, 2021).

^{147.} Complaint at 1–2, Hachette Book Grp., Inc. v. Internet Archive, No. 1:20-cv-04160 (S.D.N.Y. June 6, 2020); see also Campbell Kwan, Is Internet Archive's Unrestricted Lending of 1.4 Million Books Legal?, TechRepublic (June 15, 2020, 12:52 PM), https://www.techrepublic.com/article/is-internet-archives-unrestricted-lending-of-1-4-million-books-legal/ (last visited Oct. 4, 2021).

¶58 In the field of law librarianship, there are repositories of scholarly works like SSRN, ¹⁴⁸ Law Review Commons, ¹⁴⁹ LawArXiv, ¹⁵⁰ and Harvard's Perma.cc. ¹⁵¹ The present and future use of law schools' Digital Commons (a service of law libraries) ¹⁵² is discussed above. The point is librarianship is exerting a heavy influence over the access to knowledge in the Internet era.

¶59 As Dana noted back in 2013, librarians continued to be relevant in the face of the web and digital technologies. Rather than being replaced by them, they have leveraged them to benefit their own institutional services (e.g., online union catalogs). They have tried to benefit the web with metadata systems like FAST, and they have created their own web guides and content.¹⁵³ For example, in 2020, users visited guides created by librarians of the Columbia Law Library approximately 41,000 times in 45,000 sessions.¹⁵⁴ Libraries are adapting to the changing information environment. Their struggles with the web and digital technologies are no different than institutions like the press and universities (the very institutions described by AALS President Vicki Jackson).¹⁵⁵

¶60 Returning to social epistemology, law libraries (and all libraries) have an interesting dilemma with respect to Vaidhyanathan's description of the anti-authoritarian nature of peer-to-peer systems on the web. Law by nature is scholastic and authoritarian (it is part of its cognitive authority and social epistemology inherent in the system). Jurisdiction and the primary authority in that jurisdiction are everything in defining social epistemology. In addition, certain secondary authorities, like *Moore's Civil Practice*, *Nimmer on Copyright*, *Williston on Copyright*, and the *Restatements*, are part of the pantheon of authority of practicing attorneys, judges, and jurists. Finally, although libraries use protocols (they are decentralized in many important respects), they also use *authority control*, ¹⁵⁶ across vast bibliographic systems spanning the globe, to

^{148.} SSRN, https://ssrn.com (last visited Oct. 4, 2021).

^{149.} Law Review Commons, https://lawreviewcommons.com (last visited Oct. 4, 2021).

^{150.} LawArXIV, http://lawarxiv.info/ (last visited Oct. 4, 2021). Unlike SSRN and Law Review Commons, which are both owned by Elsevier, LawArXiV depends on a partnership of Legal Information Preservation Alliance, Mid-American Law Library Consortium, NELLCO Law Library Consortium, Inc., and Cornell Law Library.

^{151.} Perma.cc, https://perma.cc (last visited Oct. 4, 2021). Perma.cc attempts to solve the problem of broken links in legal scholarship by archiving the web material cited in scholarship.

^{152.} See, e.g., COLUMBIA L. SCH. SCHOLARSHIP REPOSITORY, https://scholarship.law.columbia.edu/ (last visited Oct. 4, 2021). This is an example of a law school (through its library) participating in Elsevier's Digital Commons, which is also part of the Law Review Commons. See supra note 149.

^{153.} See, e.g., Paul Callister, Copyright Law – Research, https://libguides.library.umkc.edu/copyright -research (last visited Oct. 4, 2021).

^{154.} See infra Figure 18.

^{155.} See supra note 4 and accompanying text.

^{156.} Authority Control, WIKIPEDIA, https://en.wikipedia.org/wiki/Authority_control (last visited Oct. 4, 2021). "Subject headings from the Library of Congress fulfill a function similar to authority records, although they are usually considered separately. As time passes, information changes, prompting needs for

consistently describe how items in their catalogs fit into taxonomies of knowledge. Law libraries have to respect the authoritarian nature of their field. However, there are even exceptions in law—international law, at least diplomacy, primarily works on protocols—but as a whole, the law has its authorities that will not be shifted easily in the face of digitization, the web, or even AI, which might otherwise displace traditional authorities.¹⁵⁷

Librarians, Instructional Roles, and the Challenge of the Single Search Bar

¶61 In instructional roles, web resources are challenging our epistemic authority. While we continue to rely on the importance of the traditional cognitive authority—including primary law and secondary sources, whether through editorial scholarship, such as *Moore's Civil Practice*, or hybrid, practitioner-oriented works, like *American Law Reports*—we are also adapting by building expertise, and thus credibility, in our epistemic role. Librarians must do this because the library's dominion over cognitive authority is no longer a given; librarians have to fight for it.¹⁵⁸

¶62 We start from a position of strength. We represent the historical cognitive authority for our student body's chosen area of practice. But we also face patron behavior that exclusively starts with the single search bar, represented in figure 14. Almost every vendor has such a bar.

reorganization." *Id.*; see also Cataloging @ Yale, Authority Control, YALE UNIV. LIBR., https://web.library.yale.edu/cataloging/authorities (last visited Oct. 4, 2021).

The century's close sees this situation changing radically. The comfortable structure of cognitive authority that had been so central to legal information has fallen, and it can't get up. Old tools are slipping from their pedestals while new ones are fighting for attention. Where once there was a settled landscape, there now is a battlefield. The change is not an organic growth, nor are the learned hands like those of the American Law Institute or the American Bar Association guiding it. This change is being driven by publishers as they battle in the information marketplace for consumers. Many senior lawyers who would normally function as the gatekeepers of change are unaware that the earth is shifting under their feet, but it is. Law students and young lawyers do not see current events as revolutionary, but they are. To them it is odd that anyone ever used Shepard's in print or that anyone actually *used* a digest volume at all.

Berring, *supra* note 37, at 1677. Since 2000, when Berring made his statement, the challenge over cognitive authority has become only more difficult for libraries.

^{157.} For a discussion of AI, the law, and legal research, see Callister, *supra* note 39.

^{158.} The challenge to cognitive authority was starkly framed in 2000. Robert Berring, perhaps law librarianship's foremost thinker on the effects of electronic legal research on the practice of law at the time, saw a revolution affecting legal authority:

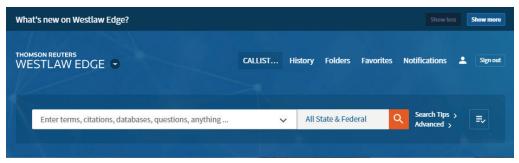


Figure 14
Westlaw Edge Single Search: All State and Federal Materials
Used by permission of Thomson Reuters

In a recent article, Paul explained the basis of this concern following a survey at his school:

In discussing how they start their research, almost half the students agreed with this statement: "I just start typing in the search bar on Lexis, Westlaw, or Bloomberg to see what comes up." This held true even though "starting with Google" was also an option on the survey (12.85% of students selected). Starting with legal commentary (something with an index) to get background on the law is far less likely (11.88%) than using a single-search box. Students can filter their results on Lexis, Westlaw, and Bloomberg "post-search" to find secondary sources, but do they bother when primary materials are displayed first and may seem relevant?¹⁵⁹

But such behavior among students does not encourage winnowing the more complex resources, the ones that contain the contextual explanation, positing the questions into the larger epistemological context of a treatise, such as, say, *New Appleman on Insurance Law Library Edition*. As shown in figure 15, a search in the single search box, by default and at this moment in time, will always start with answers in case law. And such results (case law), while crucial for legal research, are highly unsatisfactory, if we demand, as we should, that our students master the context of an issue.

^{159.} Callister, *supra* note 39, at 168, ¶12. The question in the 2019 survey of 101 UMKC law students was:

Which of the following statements are true about starting your legal research online? Select only one.

I just start typing in the search bar on Lexis, Westlaw, or Bloomberg to see what comes up. 48.51% I tend to dive into a search of primary law (cases, statutes, etc.) as my first effort. 20.9%

I like to start with legal commentary like Missouri Practice, American Law Reports, or treatises to get background on a topic before beginning my research. 11.88%

I have looked up law review and journals online for my topic at the start of my research. 5.94% I start with Google to find information on point. 12.87%

For the survey question, see Question 8 of the Default Report 360 Legal Information Environment Survey (Mar. 7, 2019), https://umkclaw.link/360-survey (last visited Nov. 4, 2021).

¶63 For example, in figure 15 a single search box search for "retirement plan assets protected from creditors in bankruptcy" produces a U.S. bankruptcy court case from the Central District of Illinois styled *In re Lee* (which is on point assuming that you are in the Central District of Illinois). 160 Because bankruptcy and retirement plans are each governed by statutes, a superior approach would be by the appropriate jurisdictional statute or, even better, explanatory commentary. However, in figure 15, on the left is a link for secondary sources, 680 of them, but that seems a little daunting. When selected, based on relevancy ranking, Westlaw Edge returns an article from Stetson Law Review from 1991. Surely, there are more timely staples of bankruptcy and retirement planning law on point. Indeed, Lexis's 4 Collier on Bankruptcy [10][b] is home to the relevant information. One way to find it is to search the index on Lexis+ under Exemptions > Pension Plans. There is still a genuine need for librarians to impart information about the seminal texts (the "cognitive authority") in fields of law of interest to law students and practitioners! Drilling in the use of indexes is also critical because a full-text search using "retirement plan assets protected from creditors in bankruptcy" of the entire text of *Collier* fails to locate the essential material.

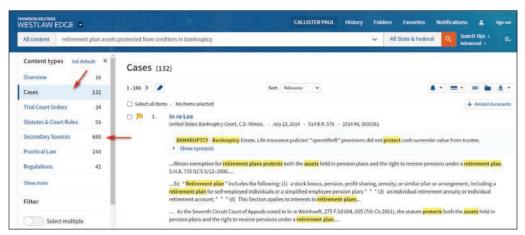


Figure 15
Westlaw Edge Single Search Box Search
Used by permission of Thomson Reuters

¶64 The good news is that even in a digital information environment, human bibliographic/metadata and research expertise is what most patrons need. Additionally, the good news in the example of *In re Lee* is that the Internet and its web resources have not replaced the epistemic power of librarians to discern and define authority in the profession for their users. As this example of the differences between uses of disintermediated

^{160.} A similar search from the single search box in Lexis+ produces a list of cases. There is no link or "filter" for secondary commentary.

and intermediated information elaborated on from a technological perspective shows, librarians have a role in explaining both, if they can sustain the credibility to do it.¹⁶¹

Facets for Institutions Such as Libraries

¶65 Libraries can be studied by their facets. Much as in the Indian tale of the *Blind Men and an Elephant*,¹⁶² the trick is to see the whole pachyderm.

Library as Its Networked Relationships of Knowledge Workers

¶66 Today, more than ever, what a library owns, or even electronically subscribes to, is less important than the expertise, skills, scholarship, contributions, and professionalism of its librarians and the relationships they have with their core constituencies and colleagues throughout the profession. The cultivation of expert "knowledge workers" and supporting contributions to academic and professional literature are not just luxuries but may be imperatives, especially in the changing information and multicultural environment.

¶67 Most visitors can identify librarians and staff as supporting their local library, but the organizational underpinnings are far more extensive than the immediate library. The diagram in figure 16 of the network in which a single academic law library participates is the tip of the iceberg. Many services of these network relationships are not covered, and many relationships may have been missed. The human component is missing.

¶68 Our combined experiences in AALL have deepened our commitment to our profession and enriched our capacity to serve. There are many librarians we could point to whose service far exceeds our own. Furthermore, much service occurs in chapter organizations and other library associations. The point is that librarians are networkers by nature. Services like OCLC cataloging and union catalogs are the result of efforts on a grand scale with a great vision. They didn't come into being by accident or

^{161.} Paul had an insightful experience while working with Wolters Kluwer several years ago. He complained so much about a new interface to its online CCH tax services that he was invited to join a "customer advisory board" that met in Chicago. Meeting with other members of the board was insightful. The major criticism was that all searches brought up news articles first—without getting into the tax code or the flagship commentary of the CCH Standard Federal Tax Reporter. Wolters Kluwer's algorithmic designers had thought news was the most important feature, rather than what their users valued—the context of existing tax law so carefully treated by CCH editors in commentary.

^{162.} Blind Men and an Elephant, Wikipedia, https://en.wikipedia.org/wiki/Blind_men_and_an_elephant (last visited Oct. 4, 2021).

^{163.} Some colleagues reviewing this paper at the 2021 Boulder Conference thought this statement went too far. Shawn Nevers, from BYU's Law Library, stated, "Our students regularly tell us how much they love our print collection." 2021 Boulder Conference on Legal Information: Scholarship and Teaching (July 15, 2021). The relative worth of librarians and collections (print and digital) may vary, but we make our statement anyway based on our own experience to provoke thought and discussion. We believe it to be generally true.

half-hearted efforts. Librarians are like bees, constantly concerned with maintaining and expanding the hive.

¶69 Figure 16 describes the network of relationships in a hypothetical library, and we did not even include vendors. The thing to note is that relationships can be divided into international, national, regional, and municipal. There are relationships that provide academic outlets, professional education, and advocacy on library issues (such as copyright and government authentication of documents "born digital"). ¹64 Some organizations have, as mentioned, produced large union catalogs and work closely with OCLC, which provides cataloging records that can be copied ("copy cataloging"), batch downloads of bibliographic records, ILL services, and the largest catalog in the world. Some organizations are dedicated to legal technology, and others to narrower fields like serving self-represented patrons. Others are distinctively ethnographic, like the AALL's Latino Caucus. The divisions of labor and interests are quite complex.

¶70 For example, this year Paul serves on the Leadership Development Committee of AALL. Last year, he was an ABA site team member for the reaccreditation of another law school. He also serves on an Affordable and Open Access Committee for his university library and the Library Dean and Directors Council for the University of Missouri System. He serves on the board of directors for the Mid-America Law Library Consortium, chairs the Promotion and Tenure Committee for UMKC School of Law, and serves on its Curriculum and Assessment Committee. Nevertheless, in July 2020, the authors first met in their role as scholars, over Zoom, during the Boulder Conference on Legal Information: Scholarship and Teaching, while presenting and reviewing their own scholarship with other participants. Such complex professional relationships help all of us stay grounded in our jobs, learning about where libraries and law schools are going, their threats and opportunities. Such engagement, tantamount to any professional's continuing education, ensures that librarians remain resourceful, skilled, and valuable at what we do. Yet, individual librarians still see only a small part of library networks and must rely on their colleagues for information based on the parts of the network to which they belong.

^{164.} See, e.g., Unif. L. Comm'n, Electronic Legal Material Act (also known as "UELMA") 2011, https://www.uniformlaws.org/committees/community-home?communitykey=02061119-7070-4806-8841-d36afc18ff21&tab=groupdetails (last visited Oct. 4, 2021).

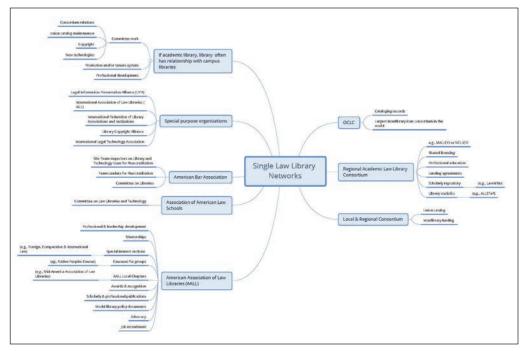


Figure 16
Libraries as Networks

Library as Portals

¶71 If Jackson's reluctance to accept librarians' epistemic role was caused by technology, that view was mistaken on so many levels. In fact, digitization has made our institutional role more complex than ever. Increasingly, it is not what a library physically holds or how many platforms and e-books it has, but how often it provides access. For instance, at the UMKC Law Library, students and faculty visited (meaning had a session with) a HeinOnline collection 4900 times during 2020. We use HeinOnline because few vendors provide meaningful usage data. The 4900 visits are more than the local checkouts in print at the law library's reference desk, consortium checkouts, and ILL combined by a factor of at least 10 for the same year. HeinOnline is linked to our catalogs and, perhaps most significantly, to Google, which drives users to the database at our libraries. In the end, a single database is driving Paul's library to being a digital portal by a factor of 10 (over the library's print checkouts). Similar data can be gleaned from Columbia's use of HeinOnline over time, with a trend toward online visits (see fig. 17).

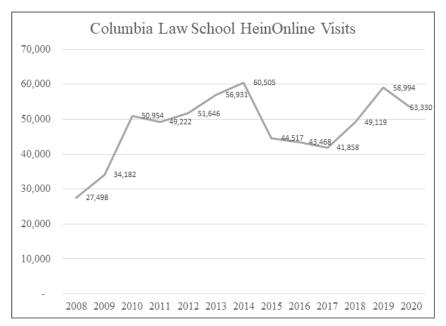


Figure 17Visits to HeinOnline at Columbia Law Library¹⁶⁵

¶72 During the same time at Columbia, when HeinOnline visits were increasing, checkouts of print materials by faculty and students were falling. At the same time, HeinOnline visits exceeded student and faculty checkouts by a factor ranging from 4.56 to 6.75. Thus, while a large Ivy League law library like Columbia has been able to maintain more checkouts than the much smaller UMKC law library, Columbia is subject to the same declines and trend toward many more visits to HeinOnline than the checking out of print materials. It may be a controversial conclusion, but if we look at patron behavior with regard to resource access and usage, law libraries, even great ones like Columbia, are already more *portal* to digital resources than they are print repositories.

¶73 Interestingly, during the pandemic months of March to November 2020, checkouts increased at the Columbia University Libraries (CUL), as the table below shows. 166

^{165.} According to definitions accompanying HeinOnline data at Columbia Law School, visits are "the number of unique HeinOnline server sessions for an account." If a user's browser does not accept cookies, then each server request creates a new session and counts as another visit. This metric counts both specific HeinOnline sessions and the number of unique sessions within a specific title or collection. Thus, each title or collection a user visits during a single session counts as a "visit" to that title or collection. Therefore, adding up the number of visits by titles or collections may be overstated. Data from Excel file attached to email from Thomas W. Baker, Coordinator of Electronic Resources, Columbia L. Libr., to Paul D. Callister, Libr. Dir. & Professor of L., UMKC (Dec. 22, 2020, 11:58 CST) (on file with author).

^{166.} Email from Hayrunnisa Bakkalbasi, Assoc. Dir., Assessment & Analytics, Columbia Univ.

But these non-law libraries did this as a *portal* to the HathiTrust Emergency Temporary Access Service (ETAS).¹⁶⁷ Thus, CUL switched from providing print to giving access to digital copies through the ETAS.¹⁶⁸

Month	# of Checkouts
March 2020	1
April 2020	6,299
May 2020	10,498
June 2020	8,608
July 2020	9,027
August 2020	8,249
September 2020	9,783
October 2020	10,310
November 2020	10,474
Grand Total	73,249

¶74 Returning to the use of online services, if we also had the numbers of views for Lexis, Westlaw, and Bloomberg, the relative access to those services compared to patron contact with physical items would differ by several orders of magnitude. Libraries, while still temples of printed knowledge, have become portals to digital resources. It is not just commercial vendors like HeinOnline, Lexis, Westlaw, and Bloomberg that are turning libraries into portals; it is the librarians themselves as they produce web guides for their users (see fig. 18).

Librs., to Dana Neacsu, Reference Libr. & Lecturer of L., Columbia L. Sch. (Jan. 4, 2021, 1:43 EST) (on file with authors).

^{167.} HATHITRUST DIGITAL LIBR., *Emergency Temporary Access Service*, https://www.hathitrust.org/ETAS-Description (last visited Oct. 5, 2021).

^{168.} A word of caution is in order: During the early pandemic, the Internet Archive offered similar access, but without a one-to-one restriction on lending digital books based on ownership of a physical copy, as practiced by ETAS. The Internet Archive is being sued for copyright infringement; see Complaint, supra note 147; see also Kwan, supra note 147. Besides the four named publishers serving in the lawsuit, the Authors Guild (often active in litigation) wrote an open letter demanding the Internet Archive's National Emergency Library be shut down. The Authors Guild, Authors Guild Sends Open Letter to Internet Archive and Brewster Kahle Demanding Open Library's "National Emergency Library" Shut Down, https://www.authorsguild.org/industry-advocacy/ag-sends-open-letter-demanding-national-emergency-library-shut down/ (last visited Oct. 5, 2021).

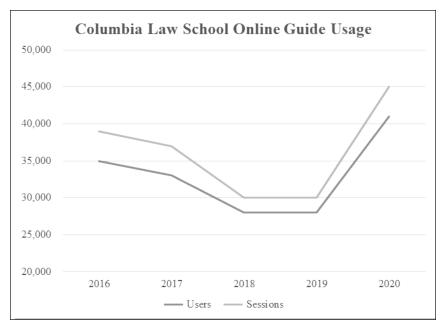


Figure 18Columbia Law School's Online Guide Usage

Some libraries have been able to turn special print collections into electronic databases that drive traffic to their portals. During the pandemic, the Columbia University Libraries (CUL) system has benefited from the temporary access arrangement with HathiTrust: if CUL owns a print copy of a work available digitally anywhere in the HathiTrust collection, CUL patrons can access it digitally, too. Some more examples are in the next section.

¶75 The geopolitical aspects of law have increased demand for international, foreign, and comparative materials. Many of these items come through special databases (such as *International Encyclopedia of Laws* or the *Max Planck Encyclopedias of International Law*). It might also mean access to foreign and international guides such as those provided by NYU's *Globalex*, ¹⁶⁹ the Law Library of Congress, ¹⁷⁰ or even your own school's LibGuides. ¹⁷¹ For instance, of the "Research Guides" listed on Columbia's law library site, nearly all are dedicated to foreign, comparative, and international Law

^{169.} New York University Law School, Hauser Global Law School Program, *Globalex*, https://www.nyulawglobal.org/globalex/ (last visited Oct. 5, 2021).

^{170.} Library of Congress Law, *International*, https://www.loc.gov/law/help/guide/international .php (last visited Oct. 5, 2021).

^{171.} See, e.g., Staci Pratt, UMKC Univ. Librs., Foreign, Comparative & International Law, https://libguides.library.umkc.edu/FCIL (last visited Oct. 5, 2021).

(FCIL).¹⁷² In 2020, Columbia's FCIL guides accounted for 17,390 unique page visits,¹⁷³ again far more than student and faculty checkouts. Columbia Law Library has become a portal for FCIL research.

¶76 The important thing to note is that the library may be accessed many more times as a portal than used to check out materials (or even visited). 174 Perhaps the most important way libraries can be portals for their schools is to develop online commons or repositories, as discussed below.

Library as Its Physical Collection

¶77 Libraries experienced another threat to their status in the late part of the first decade of the 21st century: the loss of print. Following the decision by the ABA to stop collecting title and volume data (2009)¹⁷⁵ and the Great Recession (2007–2009),¹⁷⁶ forces were in place to reduce library spending, to force them to "play defense" and face an existential threat. For example, figure 19 shows data collected from 16 participating members of the Mid-America Law Library Consortium (MALLCO).¹⁷⁷

^{172.} Columbia L. Sch., Arthur W. Diamond Law Library, *Research Guides*, https://www.law.columbia.edu/library/finding-material/research-guides (last visited Oct. 5, 2021).

^{173. &}quot;A unique pageview aggregates pageviews that are generated by the same user during the same session." *Pageviews vs Unique Pageviews in Google Analytics*, QUIETLY INSIGHTS, Aug. 15, 2017, https://insights.quiet.ly/blog/pageviews-unique-pageviews-google-analytics/ (last visited Oct. 5, 2021). Like Columbia's law library, UMKC's law library maintains web guides or *LibGuides*, although only two are dedicated to FCIL. The total views for UMKC guides in calendar year 2020 was 10,960, with 1202 views for its leading FCIL guide. This is again more evidence of the UMKC's law library becoming a portal.

^{174.} The HeinOnline "visits" outpaced reference questions in UMKC's law library by a factor of four.

^{175.} See supra note 106.

^{176.} See Great Recession, supra note 107.

^{177.} An Excel file is available with the authors at https://umkc.box.com/s/3o1q8oku93ukko1go m8vn5qvjx89vypu. The data has been scrubbed to eliminate the identifying information of participating law schools. In the Excel file, the same study revealed that of 200,425 titles purchased by the 16 law schools from 2000–2010, almost a quarter (44,295) were unique to one of the libraries in the consortium. On average, a law school library during that time period would have 2768 unique titles (among an average of 12,527 acquired titles). On the other hand, only 74 titles were shared by all 16 schools. Thus, redundancy of titles among libraries in the consortium is far from a certainty.

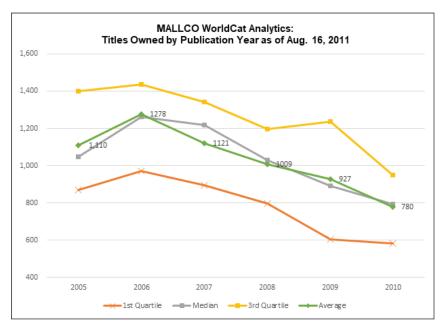


Figure 19WorldCat Analytics Study of 16 Participating MALLCO Libraries

The gradual rise and then decline (from an average of 1110 to 1278 to 780 per library) in ownership of titles (most likely monographs) in a given year is hard to interpret. It could be because there is a lag time between the date of publication and purchase. It could be because of the Great Recession. Or, it could be because libraries were relying more heavily on digital collections. It could also be because the ABA (but not *U.S. News & World Report*) had stopped collecting the data on titles and volume counts. All these factors combined may suggest something more fundamental is going on—a shift to a digital access environment for libraries. Unfortunately, the ABA and the MALLCO libraries did not collect the data to assess what happened on a broad scale after this time. Since that time, another technology is impacting library collections: the arrival of the e-book in the mid-2010s.

Library as Its Impact on Information Use and Scholarly Output

¶78 Rather than focusing on inputs (how much money we have or how many titles and volumes), we need to focus on impacts. How much information do we use? What is our scholarly output? How much circulation, how much database and web guide usage, how many reference transactions, and how much instruction?¹⁷⁸

^{178.} The 2021 U.S. News & World Report questionnaire now asks about library instruction, reference transactions, and accessible databases. It also asks about titles accessible through the catalog or

CIRCULATION

¶79 Circulation data can be complicated because of consortia, ILL, and just plain old checkouts at the front desk. The question is how are we doing over time with information usage and scholarly "outputs"? Figure 20 illustrates an example from UMKC's law library users and their relationship to MOBIUS, which implements patron-driven request delivery, a union catalog, and cataloging services among 76 libraries, 4 of which are law libraries. In total, it has more than 29 million items. The Given the size of MOBIUS, the borrowing from UMKC's law library by its users is nothing short of embarrassing. It is a prime example of a failure of information use that it is getting worse over time.

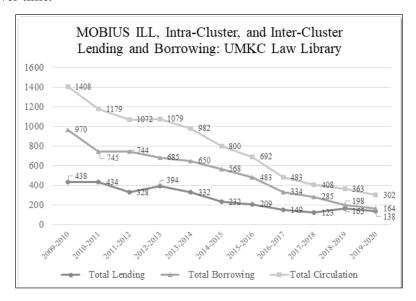


Figure 202010–2020 Academic Years: MOBIUS Lending, Borrowing, and Circulation¹⁸⁰

In a little over a decade, borrowing by patrons of UMKC's small law library has declined from borrowing 970 books in a year (admittedly, a trifle compared to larger law school libraries) to 164. During fiscal years 2011–2017 (but omitting 2016), a period for which

[&]quot;discovery system" (both at the law school and its larger university collection). This is a step in the right direction.

^{179.} See More about Mobius, Mission & Vision, MOBIUS LINKING LIBRS., https://mobiusconsortium.org/about-mobius (last visited Oct. 5, 2021).

^{180.} The source for the data is *Historic Borrowing and Lending Statistics Reports*, MOBIUS LINKING LIBRS., https://mobiusconsortium.org/node/279 (last visited Oct. 5. 2021). The four academic law libraries are at UMKC School of Law, University of Missouri, Saint Louis University School of Law, and Washington University in St. Louis School of Law.

we were able to obtain data, Columbia Law Library showed a similar decline in circulation checkouts among faculty and students. We suspect this is a nationwide phenomenon. Indeed, figure 20 reveals that the MOBIUS consortium experienced a similar precipitous drop in the same period. The same is true for Columbia Law School's library (see fig. 21).

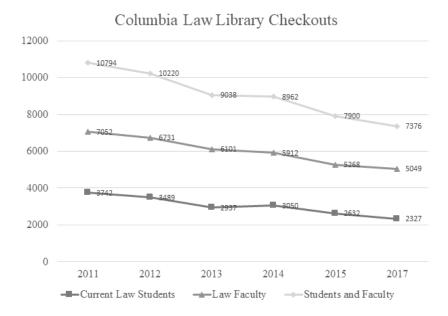


Figure 21
Columbia Law Library Checkouts (2016 Omitted)

Thus, circulation data from at least one large law library indicates a decline. However, libraries are also portals to e-resources. As mentioned above, during 2020 at UMKC, students and faculty visited (meaning had a session) HeinOnline's collection 4900 times. These 4900 visits represent more than the local checkouts in print at the reference desk, consortium checkouts, and ILL combined by a factor of at least 10 for the same year. During the last year, at Columbia, library users visited HeinOnline in equally large numbers, which suggests a change in use patterns by patrons everywhere. As described earlier, the library is a portal. It is important to increase use of resources, acquired often at great expense, as well as resources created by librarians to guide students and faculty.

^{181.} See supra ¶ 71.

^{182.} See supra figure 17.

¶80 Besides declining circulation, another challenge for libraries is the necessary move to digital access when combined with the copyright *first sale* doctrine. Prior to the COVID-19 pandemic, financial pressures and demand caused libraries to switch from a collection based on ownership to one based on licensed databases. The pandemic has made electronic access a *must*. This new reality has tremendous negative impact on libraries' missions and library users' ability to access information. It might also further adversely impact the digital gap separating big law and small firms and highly ranked law schools and those schools with less means. For example, Columbia's law library as a HathiTrust member could participate in ETAS, providing digital copies (in large numbers) to its patrons during the pandemic, but UMKC's law library had no such privileged access.

REFERENCE

¶81 If the pandemic has taught us anything, it is that going digital need not decimate reference transactions with library patrons, especially students and faculty. Perhaps as expected, and especially during the pandemic, the non-law libraries at Columbia University have seen an increase in virtual reference (v-ref) and a decrease in in-person reference transactions. In 2018, CUL averaged 128 v-ref interactions per week; in 2019, 123 per week; and in 2020, during the pandemic, around 300 v-ref interactions per week. During the same period, in-person transactions declined from 800 to 700, and finally 300 a week. 185

¶82 UMKC's law library also saw healthy reference transactions (many virtual) during the pandemic, as figures 22 and 23 reveal.

^{183. 17} U.S.C.A. § 109(a) (Westlaw through Pub. L. No. 116-216) ("the owner of a particular copy..., or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy..."). This article is written during the pandemic, and due to lack of access to print, citations to the U.S.C. will be to Westlaw Edge's online version.

^{184.} See the table in \P 73.

^{185.} See email from Jeremia Mecurio, Interim Dir. of Digital Scholarship, Columbia Univ. Librs., to Dana Neacsu, Reference Libr. & Lecturer of Law, Columbia Law Sch. (Dec. 29, 2020, 12:34 PM EST) (on file with authors).

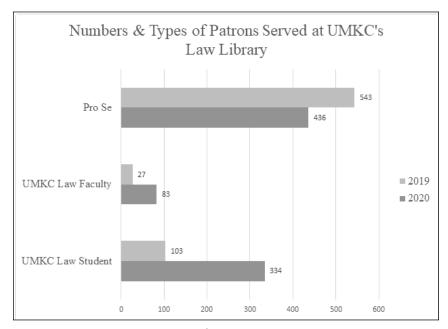


Figure 22
UMKC Law Library Reference Transactions in 2019 and 2020

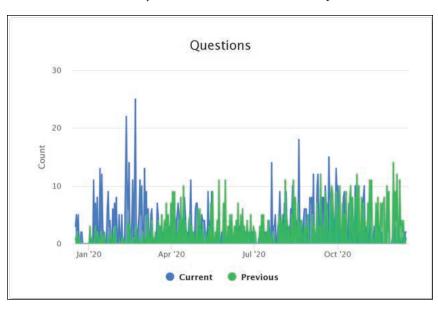


Figure 23
UMKC Law Library: When Reference Questions Were Asked in 2019 (Previous) and 2020 (Current)

Despite the pandemic, reference services to law faculty and students survived well (and, in total, increased) at the UMKC Law Library, even though much of the service was in a virtual environment after March 2020.

INSTRUCTION AND EDUCATION

¶83 Paul has written a string of articles and a book on the pedagogy of legal research instruction. ¹86 The real question, always, is are we having any impact? Of course, we receive annual evaluations from our students, but aside from those, what we know is what was said in a recent study:

In a 2014–2015 national study, the Institute for the Advancement of the American Legal System surveyed 24,000 participating lawyers, from diverse practice backgrounds, regarding about a dozen foundational "short-term" skills. The participating lawyers *most frequently cited legal research skills* as foundational—84% of those surveyed found it necessary in the "short term as a foundational skill to legal thinking. Legal research isn't just a routine activity. . . . [I]t is part of legal thinking."¹⁸⁷

¶84 Instruction is a place where librarians can and often do have great impact, though there are several problems. For one, the first year is not an adequate time for students to form legal research skills, 188 upper-level courses dedicated to legal research

186. See Paul D. Callister, Field Guide to Legal Research (2019); Paul D. Callister, Time to Blossom: An Inquiry into Bloom's Taxonomy as a Hierarchy and Means for Teaching Legal Research Skills, 102 Law Libr. J. 191, 2010 Law Libr. J. 12; Paul D. Callister, Thinking Like a Research Expert: Schemata for Teaching Complex Problem-Solving Skills, 28 Legal Reference Servs. Q. 31 (2009); Paul Douglas Callister, Beyond Training: Law Librarianship's Quest for the Pedagogy of Legal Research Education, 95 Law Libr. J. 7, 2003 Law Libr. J. 01.

187. FIELD GUIDE, *supra* note 186, at 1 (citing John Moye Hall, Inst. for the Advancement of Am. Legal Sys., Foundations for Practice: The Whole Lawyer and the Character Quotient, 1, 11, fig. 5 (2016)). The report does not address the need for long-term legal research skills.

188. For instance,

There is nothing new in the notion that law students have trouble understanding how to conduct efficient legal research, nor are some of the reasons for this phenomenon hard to understand. The law is, after all, a complicated web of interrelated doctrines and often contradictory interpretative texts. First-year law students frequently lack the contextual understanding necessary to discover and evaluate all the extant decisions necessary to develop a full analysis of the issues presented to them.

Ian Gallacher, Forty-Two: The Hitchhiker's Guide to Teaching Legal Research to the Google Generation, 39 Akron L. Rev. 151, 152 (2006); see also Ian Gallacher, "Who Are Those Guys?": The Results of a Survey Studying the Information Literacy of Incoming Law Students, 44 Cal. W. L. Rev. 151 (2007).

Attorneys who supervise new lawyers report varying degrees of skill in legal research. For those research skills traditionally emphasized in first-year research instruction, such as case law and statutory research, about 90% of new attorneys were rated as having adequate or better skills. . . . However, many new lawyers lacked other skills. Over a quarter of new lawyers were rated as having poor or unacceptable skills in using secondary sources effectively, researching court documents, locating non-legal information, or researching administrative decisions. The same percentages of attorneys were deficient in such fundamental research skills as performing cost-effective research or knowing when to stop.

Barbara Glesner Fines, Out of the Shadows: What Legal Research Instruction Reveals About Incorporating Skills Throughout the Curriculum, 2013 J. DISP. RESOL. 159, 171–72.

are usually not required, and upper-level legal research and writing requirements for graduation never seem to get around to adequately motivating students to learn to research on their own, which is unlikely in any event.

¶85 Still, libraries that offer upper-level courses, even if affecting only a small percentage of the students, are sending out students better prepared to confront the world that will confront them. As the survey above supports, this is equally true in an information environment that has largely gone online.

LIBRARIES AND SCHOLARLY OUTPUT

¶86 Bibliometrics has long belonged to librarians, and librarians are best situated to teach and motivate our law professor colleagues to use them. Below is an example of the diversity of resources and data for reporting bibliometrics for a single scholar:

- Google Scholar 256 citations to articles, 97 since 2016, h-index 7, i10-index 6.
- SSRN 1,521 downloads (6 articles with 100 or more downloads each).
- BePress Selected Works 6,430 downloads (April 14, 2005–July 8, 2021) (10 articles with over 100 downloads each).
- Research Gate 9,264 reads, 86 citations.
- HeinOnline 230 accessed online (past 12 months), cited by 122 articles, average citations per article 10.17, h-index 6.
- LawArXiv 4,670 downloads.¹⁸⁹

¶87 Many legal scholars have focused on SSRN but have not taken advantage of the diverse array of resources for promoting and monitoring their scholarship. With Elsevier's acquisition of both SSRN and BePress *Law Journal Commons*, and the relationship of HeinOnline to Google and legal repositories, legal scholars may find the ground shifting under their feet—hence, the need for better bibliometrics.

¶88 Many scholars have also failed to set up their own Google Scholar profiles, ¹⁹⁰ which is quite telling. In our experience, having a profile is important (although not perfect) in detecting citations and because Google often drives users to HeinOnline (the importance of which is described below). Figure 24 tells us not only Dana's total citations (218)¹⁹¹ but reveals an h-index, telling us that she has 8 articles with at least 8 citations. Her i10-index tells us she has 6 articles with at least 10 citations. On the left, we can see what those articles are. Indeed, the top article has 54 citations.

^{189.} LawArXiv is no longer accepting new submissions. See LawArXiv, supra note 150.

^{190.} Log on to https://scholar.google.com and click the "My Profile" link at the top of the page to get started on your account.

^{191.} Dana Neacsu, Google Scholar, https://scholar.google.com/citations?hl=en&user=hzl1_3 UAAAAJ (last visited July 8, 2021).

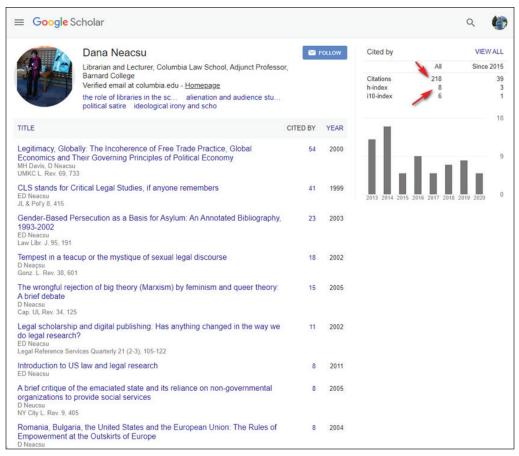


Figure 24Dana Neacsu's Google Scholar Profile

Unlike Dana, many law professors do not take advantage of the full array of resources that, predictably, may become increasingly important in reporting their scholarship. Librarians are stretched to the limits because of budgets, but those who can help with bibliometrics can make a decisive impact.

¶89 With Google's connection to HeinOnline and law school digital repositories, bibliometrics increasingly tell the story of the impact of scholarship. Figure 25 gives an example from HeinOnline.

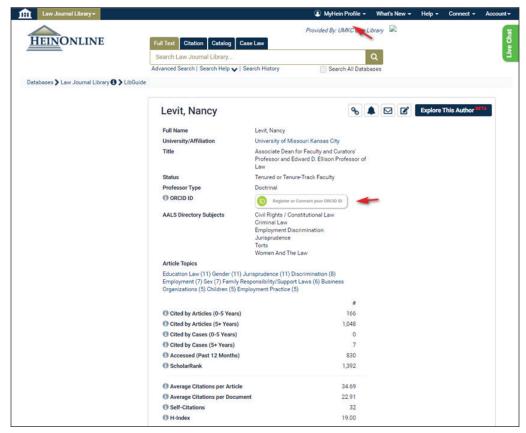


Figure 25
Professor Nancy Levit's HeinOnline Profile

One thing librarians should do for Professor Levit is help or motivate her to register for her ORCID ID and update her information under *MyHein Profile*, which includes connections to SSRN, LinkedIn, *Wikipedia*, Google Scholar, and her faculty bibliography. ¹⁹²

¶90 Finally, the game changer in bibliographic metrics may be Elsevier's Digital Commons, which has more than 300 open access law reviews from 112 law schools. Librarians have been heavily involved in Digital Commons wherever it is installed.

^{192.} See Why Hein's ORCID Integration Could Be a Big Deal for the US News Law School Scholarly Impact Ranking, WISBLAWG, https://wisblawg.law.wisc.edu/2020/02/05/why-heins-orcid-integration-could-be-a-big-deal-for-the-us-news-law-school-scholarly-impact-ranking/ (Feb. 5, 2020) (last visited Oct. 6, 2021). But see Tom Gaylord, U.S. News & Faculty Scholarship Metrics, Pritzker Legal Research Center Blog, Aug. 27, 2021, https://libraryblog.law.northwestern.edu/2021/08/27/u-s-news-faculty-scholarship-metrics/ (last visited Oct. 6, 2021).

^{193.} See Law Review Commons, supra note 149 and accompanying text.

Library as a Transformative Space and Community Facilitator

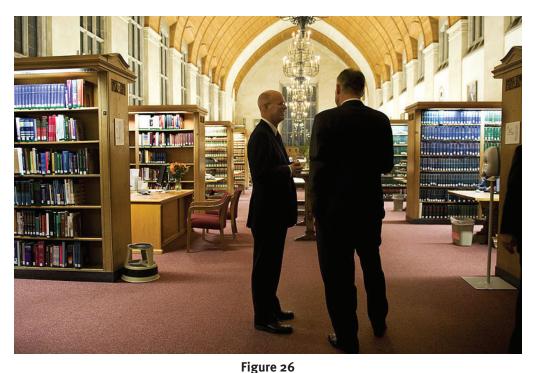
¶91 In 2005, Paul helped a session of the famous Salzburg Seminars (this one dedicated to the future of libraries) draft and adopt a statement with librarians from all types of libraries from around the globe. It read:

The library is a place where knowledge and information freely dwell to define, empower, preserve, challenge, connect, entertain and *transform individuals, cultures and communities*. The dwelling place, whether physical or virtual, is the product of collective reflection, aspiration, commitment, expertise and organization. It is both a byproduct of civil communities and a catalyst for cultural progress, inspiration, expression and exchange. Its absence in this new century would not only deprive many individuals of important resources, but also, more significantly, such loss would deny humanity an essential portion of its shared identity and entitled liberties. The library can never be fully replaced by information technologies. For the essence of its communal role is not the technological mastery over knowledge and information, but rather the provision of *sanctuary for human thought and expression* in any medium. ¹⁹⁴

There is a lot that could be unpacked from this dense and metaphysical statement about libraries and their communal role. One point Paul wishes to emphasize here is the *transformative nature* of libraries on "individuals, cultures, and communities." Working in Glendale, California, in the 1990s, he remembers going to the city's public library. What immediately struck him was that almost all the patrons in that fine institution were from an immigrant community of Armenians that was becoming the dominant ethnic group in Glendale's residential community. Why so many immigrants at the library? Because the library gave them access to literature, knowledge, tax forms, and language and citizenship classes. It was an avenue to assimilation and a focal point for their community. The Glendale public library was an instrument of *transformation*.

¶92 Such is also the case with academic law libraries. Law students seek to become members of a new professional community. They are forging new identities. The library can be an institution and a space for such transformation. Some libraries do this well with rather impressive reading rooms or entrances, designed to impress upon the visitor the decorum of the law.

^{194.} Salzburg Seminar Session 422, "Libraries in the 21st Century," Vision of the Communal Role of Libraries, Mar. 31, 2005, https://umkc.box.com/s/tkb2vc61ccly3jifagbh73d5n4bphxd7/, archived at https://perma.cc/HTS6-LCFF (emphasis added) (The statement was signed by 49 fellows, faculty, and observers of the Session, representing 27 countries and institutions such as the Library of Congress, National Geographic Society, Egypt's Alexandria Library, and the International Federation of Library Associations.)



Reading room at Cornell Law Library, Deputy Secretary of Defense William J. Lynn III and
Stuart Schwab. Image in the Public Domain.

The photograph shown in figure 26 is from Paul's alma mater. It is no accident that a photo of the U.S. Deputy Secretary of Defense and the law dean occurred there because it is in a space that defines Cornell Law School's identity and "brand." The solemn and spectacular reading room of that library, where Paul spent many hours in earnest study, left an indelible impression on him as to what it meant to be a Cornell law student and later a Cornell law school graduate. Immersive study in the library, in such surroundings, was part of Paul's mental transition into a community.

¶93 It is not just physical architecture that is significant. Law libraries provide safe spaces (sanctuaries) for students to learn from librarians how to rigorously search for legal information in the quest for competence as attorneys. 195 One-on-one interactions

^{195.} See, e.g., Model Rules of Pro. Conduct r. 1.1 (Am. Bar Ass'n 1983). Courts have interpreted Model Rule 1.1, or its state-adopted equivalent, to require a duty of basic legal research. See Baldayaque v. United States, 338 F.3d 145, 152 (2d Cir. 2003) (criminal defense lawyer "did no legal research" on client's case); Att'y Grievance Comm'n v. James, 870 A.2d 229, 240 (Md. 2005) (failure to do "even cursory research" regarding viability of claim); State ex rel. Okla. Bar Ass'n v. Hensley, 661 P.2d 527, 530 (Okla. 1983) (intestacy laws not "peculiar to probate law" but "basic" and "readily ascertainable"); In re Young, 639 S.E.2d 674 (S.C. 2007) (filing RICO counterclaim in answer to adversaries' suit without

with librarians can create memorable experiences molding (transforming) law students and giving meaning to their current and future legal roles: first student, then law school graduate and, ultimately, member of the legal profession.

Media, Technology, and Language

¶94 From Deibert's model, we have surmised:

Print texts, which are uniform and stable, give way to digitalization with search capabilities and increased storage, capable of manipulation by AI and natural language processing (including predictive capabilities and detection of new relationships). The internet adds ubiquitous access, global connectivity, but suffers from the phenomenon of link rot. Copyright law is insufficient to address link rot problem or archiving the Web. 196

The most fundamental technology in an information environment is written and spoken language. In our times, digital technologies and AI are also taking their places as fundamental to our environment and importance as institutions such as libraries grapple to adapt. Key to understanding the role of technology and language is the role of human intermediation or disintermediation by technology.

Intermediated Technologies

¶95 Looking to history, the ancient Egyptians' writing was intermediated by a scribal class because of silent determinatives embedded in writing that demanded interpretation rather than mere vocalization of text. Po, too, the bards of Iceland and Ireland intermediated their law by committing it to memory and reciting it to the populace on some regular basis. Prior to printing, gloss manuscripts were intermediated by scribes, who interpolated texts by inserting their own interpretations into the manuscripts they copied. Po

¶96 To our point, there is an intermediation going on in Lord Coke's scholarship through the author's linking provisions of law, from different legal masters, to each other in a collective system, demarcated by pinpoint, marginal citation. It is a different type of intermediation—it is systemic and connotative of authority²⁰⁰—but it is not so

researching state predicate offenses upon which claim was based).

^{196.} See figure 1.

^{197.} Paul Douglas Callister, Law's Box: Law Jurisprudence and the Information Ecosphere, 74 UMKC L. Rev. 263, 297-99 (2005).

^{198.} *Id.* at 311–19. The medieval Welsh used triads. *See generally* The Legal Triads of Medieval Wales (Sara Elin Roberts ed., 2007).

^{199.} Callister, supra note 197, at 308.

^{200. &}quot;[C] onnotative includes the 'socio cultural' and 'personal' associations (ideological, emotional, etc.) of the sign." Callister, *supra* note 9, at 53 (citing DANIEL CHANDLER, SEMIOTICS: THE BASICS 137–38 (2007) and Göran Sonesson, *Denotation and Connotation, in* ENCYC. OF SEMIOTICS 187–89 (Paul Bouissac ed., 1998)). The concept is akin to concepts of "web-of-beliefs" and "emotional cues."

different from the intermediation imposed by librarians with the development of library science and bibliographic protocols in catalogs to impose standard ways of accessing information. Figures 11 and 12 (relating to bibliographic records) illustrate a common purpose with Lord Coke to link or intermediate texts of common subjects together, according to subjects determined by librarians.

Disintermediation, Digitization, AI, and Natural Language Processing

¶97 Moving forward in time, digitization and AI with natural language processing would, at least on the surface, move the legal cognitive authority from intermediated reading of accepted texts on given subjects to the disintermediated search for legal information. By "disintermediated," we mean the absence of human direction to appropriate authority in legal texts. Digitalization has been accompanied by mass storage of legal information, the capacity for manipulating legal texts, processes that expose new relationships between texts,²⁰¹ and AI response to search inquiries. In a recent article, Paul began with a quest to determine whether AI had become or could become our disintermediated touchstone for authority.

¶98 We may be inevitably moving toward AI becoming our touchstone for authority, or as Robert Berring has articulated, our "cognitive authority," but we are not there yet. Outside of the field of law, it is easy to see how this shift has already occurred. We can ask Google and Amazon Alexa about all sorts of things and get cogent answers. For example, "Who won the last Chiefs game?" More remarkable than the answers is that we trust their accuracy. These devices and the software that supports them have become part of our cognitive authority. Within law, the relationship between search engines and cognitive authority is more complex.²⁰²

¶99 Indeed, law is more complex. After much inquiry into the mathematics and statistical operations of modern search engines, and a very unscientific review of search results from different search platforms and based on a complex search of Paul's own devise, Paul concluded in his article:

There are a number of reasons why we cannot yet rely upon legal search engines like we do with Google or Amazon Alexa, at least with respect to natural language processing. The legal search services are turning to the single-search bar, but their natural language algorithms appear to be based on a "bag of words" [processing based on proximity without reference to word order], with scarce evidence of syntax playing any significant role. For the most part, by treating words as vectors, we are relying on proximity—whether terms in the same document or within a "context window"—to accord with meaning. I believe legal discourse to be too subtle to be boiled down to proximity of words, regardless of the method of doing so. Perhaps more important, the role of secondary authority (the great treatises) is often subjugated in search processes, especially with respect to access through indexes and tables of contents.²⁰³

^{201.} See Callister, supra note 39, at 173–75, ¶¶ 20–26.

^{202.} *Id.* at 162–63, ¶ 1 (citations omitted).

^{203.} Id. at 210, ¶ 108.

In other words, we still find the role of human intermediation of librarians in the search for information to be critically important. Legal texts and sources are complex, and disintermediated searching, especially when confined to a single search bar focused on primary law, simply is not ready at this point to replace the human element.

¶100 We also feel, as librarians, it is our duty to caution legal researchers that the *search* for information must not replace the reading of legal texts or the use of human intermediaries and the tools they produce. Legal texts are not fodder for manipulation in snippets and clips from online searches without risk of loss of context, relevance, meaning, and connection to the *web of authority* that constitutes the law.

Intermediated v. Disintermediated: Cognitive Authority and Epistemic Foundations

¶101 The choice between intermediated and disintermediated technologies has epistemic consequences. It can be a significant choice of where to bestow our trust for accessing knowledge, a choice of cognitive authority. Prior to the Internet, librarians held the keys to the kingdom of knowledge, making suggestions and using their epistemic power. Certainly, the goal of the librarian should not be to get his or her students to always choose intermediated technologies such as indexes, tables of contents, subject headings in online catalogs, or key term (metadata) searching in databases, but to understand *when* intermediated access is a better choice than choosing a disintermediated technology, such as a single search box using AI. Educating students on this issue is important because it demonstrates that librarians—as well as digital and AI technologies—assume needed *roles* in the future.

¶102 In a recent advanced legal research class (during COVID and online), Paul influenced students by guiding them to trusted resources for their chosen fields. All students learned the value of *American Law Reports*, various state encyclopedias and treatises, dictionaries, the West Key Number System, and authoritative sources for primary law. But to be more precise about cognitive authority, one student planning to practice bankruptcy came to appreciate *Collier on Bankruptcy*. Another student, interested in human resources law, with a particular interest in the Equal Pay Act, found no single treatise that was the "flagship" service for the issue but, with the help of a librarian, found Bloomberg BNA manuals, books, and treatises addressing the topic; several *American Law Reports* annotations on point; Congressional Research Service reports; and key law review articles. The point is the student got away from the single search bar and found solid materials to help with understanding the Equal Pay Act (as well as expected legislative history and EEOC resources)—the student's cogitative authority had changed over the course of the class.

¶103 From a different aspect of librarianship, the very act of catalogers and metadata librarians to add a human element and taxonomy to organize information has epistemic consequences: the established epistemic pathways for researchers to connect with materials based on classifications accepted by an experienced group of human subject matter

experts—the librarians. This stands in stark contrast to algorithms and AI (although some of that may be "trained" by humans).²⁰⁴

¶104 We would venture that some major legal research companies are betting their futures on whether the market will settle on one epistemic choice or the other—intermediated versus disintermediated access to legal information, with or without librarian help to explain the roles of each option. Thomson Reuters (formerly West Publishing) built its reputation for case law access on the West Topic and Key Number System, which it continues to this day in electronic format (as well as print) and which system may well enhance the AI systems Westlaw Edge has added to its search systems. A very unscientific study by one of the authors in a recent article revealed that Westlaw Edge's search technology performs handsomely with a difficult search (singular though the test might have been). The dichotomy between intermediated and disintermediated choices may turn out to be a false one. The legal profession's cognitive authority of the future may be an intricately woven, epistemic web of human intermediated and AI disintermediated resources and techniques. The legal profession's cognitive authority of the disintermediated resources and techniques.

The Digital Divide and the Threat to Libraries

¶105 It is hard for libraries to establish cognitive authority for a community such as law without widespread access to epistemologically recognized research resources. Access is threatened in this new digital environment. In one sense, legal information used to be scarce but for libraries that enabled access to their collections. Now, information is assumed to be ubiquitous, which is true, but only for a privileged few; the rest have to scavenge for scraps on the web.

¶106 During 2015–2017, Paul was retained as an expert witness in a cyberlaw case where a domain name had been converted in southern Missouri. The issue was whether domain names were property that could be converted. The contest was unfair between the two sides. While on the witness stand, it became apparent to Paul that while he had access to an *American Law Reports* annotation that supported his position (with underlying cases), the opposing counsel was left to Google searches—hardly a fair contest, and one that underscores the increasing digital divide among attorneys. Access is not

^{204.} See, e.g., David Lat, How Artificial Intelligence Is Transforming Legal Research, ABOVE THE LAW 2020, https://abovethelaw.com/law2020/how-artificial-intelligence-is-transforming-legal-research (last visited Oct. 6, 2021) ("How did [Westlaw Edge] KeyCite Overruling Risk come together? It required state-of-the-art AI technology, including advanced natural-language processing as well as traditional, [human] supervised machine learning.") (emphasis added).

^{205.} See Callister, supra note 39, at 187-89, ¶¶ 54-58, 198-99, ¶ 72.

^{206.} Paul once asked Pablo Arrendondo of Casetext how his company could compete with giants like Thomson Reuters that had acquired the Topic and Key Number System of West Publishing and could incorporate that human element into its search systems. Pablo's reply was that they also used a human element, the statements of judges into subsequent cases about the holding and meaning of prior cases to determine what those prior cases really meant. Even startup companies like Casetext can excel by using a combination of human intermediated and disintermediated information.

just about enjoying a particular source. Indeed, the advent of AI deepens the divide further, with the concern that some technologies require so much computer power and data that only the U.S. and Chinese governments will be able to afford them.²⁰⁷

¶107 While we don't envision our major vendors of online legal information as ever expending so much on AI that only the government will be able to afford them, they certainly may find that their return on investment is maximized with fewer subscribers, who pay more for the complete package that AI may offer. In such a world, it is *big law* versus the rest of the profession and what lesser "libraries" with limited resources can afford. As county and public academic law libraries dwindle for lack of resources, gaping chasms in the access to legal resources are opening up in the profession, let alone for the self-represented litigant. ²⁰⁸ The same is true for law schools. It is easy to imagine a future in which only the top law schools can afford the full array of tools offered by AI and vendors. Lesser-ranked law schools may find it financially hard to provide for such resources. If law libraries are to have a future, it is because the legal profession and vendors decide it is a moral imperative to help close the access gap in legal resources. Will we let our trusted repositories of the law be open to all?

¶108 The use of HathiTrust's ETAS and other online services are problematic examples. Traditionally, libraries acquired print copies and lent them—one print copy per user—but because of the first sale doctrine, this is not necessarily the case with digital copies. Pre-pandemic, when a print copy came back, another user could lend it. It was economical for users—all they needed was literacy. Now, in the digital environment, things are quite different for many reasons, especially because libraries cannot avail themselves of the first sale doctrine, as there are fewer and fewer print copies available for lending (due to budget cuts). Instead, libraries are forced to license e-books. For example, HarperCollins licenses e-books to libraries with "self-destruction mechanisms" embedded in the library loan, so the title disappears after 26 individual loans. ²⁰⁹ It seems absurd, but the publisher's requirement is noteworthy: if a library wants to lend a title 27 times, it needs to buy another copy. This library "arm-twisting" is noteworthy because there is no purchase involved and, therefore, no first sale library exception. Worse, the simultaneous access to a digital work is never guaranteed. Thus, in the digital environment, libraries find themselves at the mercy of publishers, unable to perform

^{207.} See Elliot Jones, Nicolina Kalantery & Ben Glover, DEMOS, Research 4.0 Interim Report 18 (Oct. 2019), https://demos.co.uk/wp-content/uploads/2019/10/Jisc-OCT-2019-2.pdf (last visited Oct. 6, 2021) ("Unless the cost of compute drastically decreases, experiments will grow too large to be affordable by anyone but the US or Chinese governments."). Compute is the correlation between the amount of computing power used to train AI and the power necessary for the resulting AI model. Id.

^{208.} See Staci Pratt & Montanna Hosterman, Innovation & Access to Justice: The Role of the Academic Law Library, AALL Spectrum, Jan./Feb. 2021, at 12.

^{209.} Dana Neacsu, *DRM Redux*, in DIGITAL RIGHTS MANAGEMENT: THE LIBRARIAN'S GUIDE 181, 122 (Catherine A. Lemmer & Carla P. Wale eds., 2016).

their traditional lending functions, which is an existential threat to this fundamental institution of our epistemic foundation for a democratic society.

¶109 Moreover, users in a digital world need so much more than literacy skills to access information, but hardware and Internet access are not yet guaranteed benefits of living in an urban or suburban environment (and certainly not a rural one). Therefore, library space as a communal space for knowledge production may be revitalized because libraries still offer some hardware and, of course, Internet access. This is true not only for public libraries but also for law libraries, though the scope of access and usage is different. Among law school libraries, as mentioned throughout this article, there is a digital gap in resources. Digitization, having replaced the benefits of lending print copies, is rewriting the rules for the sharing of information.

Geopolitical and Physical Considerations

¶110 The global and physical considerations of Deibert's model may not be visible at first, but they are important to libraries that strain to accommodate students and faculty in an ever-changing world. Our own summation is:

Globalization of business, NGOs, government, academia, immigration, and Web connectivity increase relevance of international, transnational, and foreign law. Libraries with ownership or access to these materials provide invaluable resources. Humanitarian, immigration, global environmental, and trade law, once the providence of elite law libraries, become of interest to all libraries.²¹⁰

To this we must add the operation of global pandemics like COVID-19, further pushing libraries to function as portals for digital information, online platforms, e-books, and virtual reference services for the sake of public health, let alone preexisting demand for online services.

Libraries as Enablers of the Rule of Law

¶111 In April 2008, Paul presented at the National Defense University on the Rule of Law, which topic was a Major Mission Element (MME) of the military's Security, Stability, Transition, and Reconstruction (SSTR) operations in Iraq and Afghanistan. Paul learned that an army colonel had gone to great lengths during her tour in Iraq to publish the existing regulations (as promulgated by Saddam Hussein's administration). Iraqis and Americans were in dire need of law to run the country. According to the colonel, the demand for the regulations was overwhelming, and some Iraqis requested that a television program be devoted to them. Imagine having a television program for the U.S. Code of Federal Regulations! The point is that access to law is critical to a functioning society, and libraries can play a role.

¶112 With respect to rule of law, there is a *thin theory* that separates out elements of rule of law from democracy and human rights—not that those are not also essential. The rule of law functions as a check on power, and in thin theory, scholars have articulated various elements, including access to and transparency of the law.²¹¹ Paul has previously attempted to define this access as follows:

Under the theory, the law must also be transparent, public, and accessible (this is where factors such as literacy, libraries, and affordable access to legal services and published law comes into play). Law that is intermediated by a professional class of lawyers, clerics, or priests can operate to either clarify or obfuscate the law.²¹²

Law libraries can provide a critical role in providing access to law. Paul has stated another element of the rule of law thusly: "Law is based upon procedural rules for enactment and made by an institution with authority (to this I would add that the thin theory presupposes a shared *cognitive authority*—that there are certain touchstones in a society, that its members recognize as authority)."²¹³ As set forth here, libraries also have a role with respect to identifying the cognitive authority of the field and practice of law.

¶113 In many countries, and indeed often in our own, law is not accessible to the majority of the population. Without access, there can be no rule of law, and the legitimacy of the ruling government is in question.

The Importance of Foreign, Comparative, and International Law Collections and Expertise

¶114 As already mentioned above,²¹⁴ law libraries act as a portal to provide access to and guidance on foreign, comparative, and international law (FCIL). Although it varies widely from library to library, many have built extensive print collections. Figure 27 shows a bar chart of the FCIL print titles held among law schools in MOBIUS, including UMKC Law School. The data was collected in 2010 through WorldCat Collection Analysis.²¹⁵

^{211.} See Randall Peerenboom, China's Long March Toward the Rule of Law 65 (2002) (citing Lon L. Fuller, The Morality of Law 39 (rev. ed. 1969)).

^{212.} Paul D. Callister, What is Meant by Freedom?, 37 PACE L. Rev. 507, 523 (2017).

^{213.} Id.

^{214.} See supra notes 169 through 173 and accompanying text.

^{215.} Copy of the WorldCat Analysis study (Aug. 18, 2011) on file with the author in an Excel file at https://umkc.box.com/s/ox2zspa78rruufp7z6laxo7jfs78xzpv.

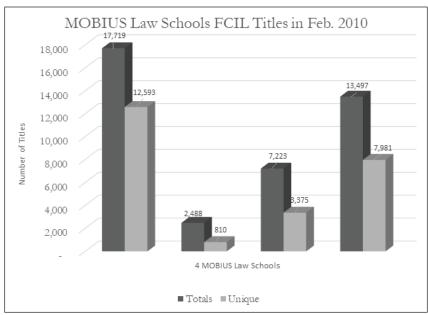


Figure 27WorldCat Collection Analysis of FCIL Titles in Four MOBIUS Law Schools

Among all four academic law libraries of MOBIUS, there were 40,927 FCIL titles in 2010, of which 24,759 (60 percent) were unique to one of the law libraries in the consortium. This represents a substantial investment and diverse collection practices for law libraries in Missouri and demonstrates how geopolitical considerations affect law libraries as predicted in figure 1. In 2013, Paul did a similar WorldCat analysis study of 16 participating MALLCO member libraries for FCIL post-1999 titles. The 16 participating libraries had 60,969 FCIL titles, with 12,559 (20 percent) being unique. On average, libraries had 3811 titles, of which 785 were unique (21 percent). Only 7 titles were held in common by all 16 schools. *See* figure 28. There is significant diversity as well as overlap among FCIL titles being collected, but note that one school (School 16) had as many unique FCIL titles as total titles held by several of the MALLCO participating libraries. For some schools, FCIL titles are much more important. Again, geopolitical considerations, as expressed in the collection of FCIL titles, are important factors in the adaption of Deibert's model to the legal information ecological sphere, even if FCIL titles are not equally important to all schools.

^{216.} The study is in an Excel file held by the author at https://umkc.box.com/s/sfj4uhfuwdn94k w5ilomr5zwkrn7wihc. It has been scrubbed of any information identifying the participating schools.

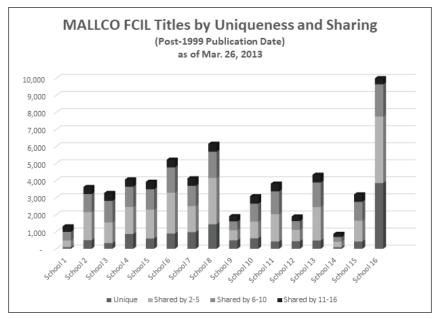


Figure 28
WorldCat Collection Analysis of MALLCO FCIL Titles in 2013

Influences on the Future of Libraries

¶115 From Deibert's model we have predicted that AI will aid and replace tasks and even human decision making. Furthermore, global access to law is increasingly important in an interconnected world. Because law is such a complex cognitive and authority-driven field, we feel that law librarians will always have a role if they decide to face the new epistemic challenges. To this, we add the need for continuously diversifying library services with new offerings. Among this expanded role we encourage libraries to assume and embrace the role of publishers through Digital Commons or other repository services.

Technological Factors: Libraries, Subscription Digital Services, and Al

¶116 If the question is whether law libraries will be replaced by Alexa or similar services by subscription vendors providing AI products, Paul's conclusion in a recent article in this journal is that we are a ways from such sophisticated services in law due to the technical subtlety of legal language, the tendency of AI search algorithms to treat phrases and sentences as a "bag of words" where word order doesn't matter (but

^{217.} See supra figure 1.

^{218.} Word order and proximity within a range of context words doesn't matter. See Callister,

proximity still does), and the exaltation of primary law (usually cases) in the first results of a search from the single search bar on the services' "splash" page. ²¹⁹ Furthermore, studies by Susan Nevelow Mart indicate a wide variation in results from different legal platforms by searching from a single search bar. ²²⁰ Roughly 40 percent of search results across the different services are "unique to one database." ²²¹ Worryingly, many attorneys do not have access to a variety of services to compare results, and many do not have access to platforms that are as capable as the flagship services of Westlaw Edge and Lexis+. In conversation, Nevelow Mart's answer to the problem of varied results is to do *reiterative* searching. ²²² Nonetheless, it is hard to bestow trust, the essence of cognitive authority, when results are not consistent in single search bar querying on legal research platforms.

¶117 At the same time, we must acknowledge the potential of AI, which "including natural language processing [and whose algorithms are proprietary and unknown], may challenge this profession, including the larger profession of law practice, as much as, if not more than, the shift from ownership of print resources to licensed digital resources."²²³ Nonetheless, we earnestly believe librarians may shape their future through providing portals and access, fashioning online guidance, improving their instructional capabilities, testing and comparing legal research search engines, and defining cognitive authority, whatever the future online environment may bring.

Institutional Factors: Libraries as Digital Commons Publishers and Repositories

¶118 We see academic libraries returning to the age of the scriptorium²²⁴—where knowledge is both published and stored for the benefit of humanity. Academic libraries have continuously reinvented their roles as centers of knowledge, adding new digital and teaching centers, opening new laboratories, and diversifying their body of

supra note 39, at 187, ¶ 53.

^{219.} *Id.* at 209–10, ¶¶ 107–08. Callister examined AI algorithms and techniques, and studied natural language search capabilities on Westlaw Edge, Lexis Advance, Bloomberg Law, Fastcase, Ravel, and Google Scholar. *See id.* at 187–98, ¶¶ 53–71. Lexis seemed least likely to follow a "bag of words" approach since word order mattered in natural language search results. *See id.* at 189–92, ¶¶ 59–62. Since search algorithms used with AI are proprietary, it is hard to draw any exact conclusions.

^{220.} See Susan Nevelow Mart, Results May Vary, A.B.A. J., Mar. 2018, at 48; Susan Nevelow Mart, The Algorithm as Human Artifact: Implications for Legal [Re]Search, 109 LAW LIBR. J. 387, 397, 409, 2017 LAW LIBR. J. 20 ¶¶ 16, 36.

^{221.} Nevelow Mart, *Algorithm*, *supra* note 220, at 390, \P 5.

^{222.} Telephone interview with Susan Nevelow Mart (Oct. 24, 2019).

^{223.} Callister, supra note 39, at 162, ¶ 1.

^{224.} See Jenneka Janzen, Pondering the Physical Scriptorium, Medievalfragments, Jan. 25, 2013, https://medievalfragments.wordpress.com/2013/01/25/pondering-the-physical-scriptorium/ (last visited Oct. 6, 2021) ("The chapter house, an increasingly standard structure from the 11th century on, may have served as a part-time scriptorium, or its upper floor used as a dual-purpose library-scriptorium as at St Alban's.").

expertise. It seems only logical to argue in favor of their increased role in the scholar-ship enterprise, including publishing and scholarship dissemination.²²⁵

¶119 On November 7, 2008, directors from a dozen prestigious law libraries (including Columbia) signed the Durham Statement, pledging to migrate from print to electronic journals and to provide open access to the public. 226 Ironically, as of this writing, 112 law schools have made more than 300 law reviews open access through a platform known as the Digital Commons (including the Law Review Commons),²²⁷ formerly owned by BePress and now owned by Elsevier (the former publisher of many print journals in fields other than law). 228 Thus, legal academic journals are migrating from cheap print journals from their own university presses to an online, open access platform of an expensive journal publisher. The Digital Commons promotes not only a school's journals, but faculty scholarship of any kind, and anything else the school deems important. For example, as of this writing University of Missouri in Columbia has had 3,059,688 downloads and 487,965 in the last year through its Digital Commons platform (see fig. 29).²²⁹ Our colleague, Randy Diamond, the director of library and technology resources at Missouri, made an early, astute decision in 2012 to invest in the platform, ²³⁰ as did many other directors. The Digital Commons platform provides for mirroring of faculty scholarship published elsewhere; for a host site for its own journals; for publishing books (five titles), including open educational resources to be used in the

^{225.} Dana has explored the complex new role of libraries in a recent article. See Dana Neacsu & James M. Donovan, Academic Law Libraries and Scholarship: Communication, Publishing, and Ranking, 49 J. L. & Educ. 433 (2020).

^{226.} See Duke L., Goodson L. Libr., Durham Open Statement on Open Access to Legal Scholarship, Feb. 1, 2012, https://law.duke.edu/lib/durhamstatement (last visited Oct. 6, 2021). But see Final Report of the Durham Statement Review Task Force, Duke L. Scholarship Repository, Appendix C (Aug. 31, 2021), https://scholarship.law.duke.edu/faculty_scholarship/4092/ (while some student-edited publications are publishing in open, digital formats, still fewer are reducing or stopping publishing in print—one of the core objectives of the Durham Statement).

^{227.} Law Review Commons, *supra* note 149; *see also* Law Review Commons, *About*, https://lawreviewcommons.com/about.html (last visited Oct. 6, 2021).

^{228.} ELSEVIER, Elsevier Acquires bepress, a Leading Service Provider Used by Academic Institutions to Showcase Their Research, Aug. 2, 2017, https://www.elsevier.com/about/press-releases/corporate/elsevier-acquires-bepress,-a-leading-service-provider-used-by-academic-institutions-to-showcase-their-research (last visited Oct. 6, 2021). Elsevier also owns SSRN. See Elsevier, SSRN: Tomorrow's Research Today Since 1994, https://www.elsevier.com/solutions/ssrn (last visited Oct. 6, 2021). We would be remiss if we did not mention that Digital Commons is owned by Elsevier, and many librarians are concerned about enabling Elsevier to dominate the market for repositories of legal scholarship.

^{229.} UNIV. OF Mo. Sch. OF L., Scholarship Repository, https://scholarship.law.missouri.edu (last visited Oct. 6, 2021).

^{230.} Email from Randy Diamond, Dir. of Libr. & Tech. Res. & Professor of Legal Rsch., Univ. of Mo. School of L., to Paul D. Callister, Libr. Dir. & Professor of L., UMKC Sch. of L. (Jan. 8, 2021) (on file with authors). Randy credits Cindy Bassett and Needra Jackson for managing the project "brilliantly and expeditiously." *Id.*

classroom;²³¹ and for a home for library special collections. Interestingly, not only are libraries usually paying for the service, but it is librarians who are driving their schools' scholarly works and productive output to Elsevier's Digital Commons and administering the platforms. Thus, librarians are adapting to important new roles, facilitating the promotion of scholarship at their institutions.

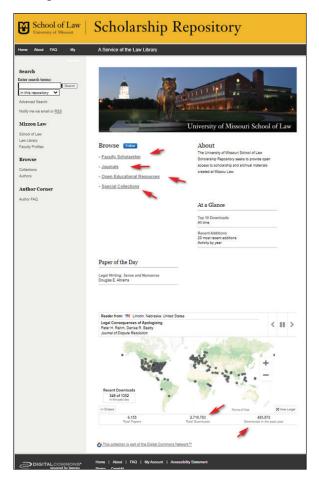


Figure 29Digital Commons Scholarly Repository for University of Missouri (Columbia)

¶120 In any event, libraries have gradually built their archiving role, through academic repositories, usually known as *information repositories* or *digital commons*. They

^{231.} UNIV. OF Mo. Sch. of L., Scholarship Repository, Faculty Books, https://scholarship.law.mis souri.edu/fac_books/ (last visited Oct. 6, 2021).

are, in effect, using "mirror sites" for already published scholarship,²³² but often in ways that highlight their institution's *brand*. Besides archiving, Dana, in a recently coauthored article, has called for greater involvement in the academic publishing process and in the bibliometrics that track scholarly impact.²³³ "[W]e suggest that libraries define for themselves a more active role within scholarship production, which we define to include publication, distribution, access, and the process of scholarship impact assessment."²³⁴ The library's role as a scriptorium becomes more realistic in this conception of the future.

¶121 In many ways, little has changed in academic publishing writ large. Journal scholarship is largely published at no charge in specific journals whose titles convey varying levels of quality. The top 10–20 publishers include the likes of "Elsevier, Taylor & Francis, Springer Nature, and Wiley." According to Kate Murphy in the *New York Times*, they typically have profit margins of more than 30 percent and participate in a \$10 billion industry provided in part by university library acquisition budgets. Murphy points out both content providers (publishers) and content consumers (academic libraries) believe the price "is justified because [the publishers/aggregators] are curators of research, selecting only the most worthy papers for publication." ²³⁷

¶122 However, not all libraries have accepted the costs demanded for content access. That is understandable if we consider, according to Murphy, "annual subscription fees rang[e] from \$2,000 to \$35,000 per title, if they don't buy subscriptions of bundled titles, which cost millions." For instance, the Max Planck Institute has published a white paper calling for a disruption of the subscription model, asking libraries to support the open access publishing model. ²³⁹ Recently, the Ohio State University Library announced

- 233. Neacsu & Donovan, supra note 225.
- 234. Id. at 434.
- 235. Kate Murphy, Should All Research Be Free?, N.Y. TIMES, Mar. 13, 2016, at 6 SR, col. 1.
- 236. Id.
- 237. Id.
- 238. Id.

The world's research organizations, together with their libraries, need to act jointly and with some coordination, with the key aim of shifting the money out of the subscription system and so that it can be reinvested in open access publishing. This coordinated move will also give an unambiguous message to the publishers, so that they themselves can adapt to the new business model with confidence in its financial

^{232.} For example, an article may be published in a law review (which posts the article to its site) and then be "mirrored," or reposted in a university repository (hosted by a university library, such as at https://mospace.umsystem.edu), a law school *digital commons* (provided by Elsevier and facilitated by the law library, such as at https://scholarship.law.columbia.edu/), the Social Science Research Network (SSRN, at https://ssrn.com), Research Gate (at https://www.researchgate.net/), and LawArXiv (at https://osf.io/preprints/lawarxiv, but no longer accepting new submissions). If the law review or journal is hosted by the Elsevier digital commons, then the original posting is digital and there is no "mirroring."

^{239.} RALF SCHIMMER, KAI KARIN GESCHUHN & ANDREAS VOGLER, DISRUPTING THE SUBSCRIPTION JOURNAL'S BUSINESS MODEL FOR NECESSARY LARGE-SCALE TRANSFORMATION TO OPEN ACCESS: A MAX PLANCK DIGITAL LIBRARY OPEN ACCESS POLICY WHITE PAPER, Apr. 28, 2015, https://pure.mpg.de/rest/items/item_2148961_7/component/file_2149096/content (last visited Oct. 6, 2021).

that Taylor & Francis would abandon its subscription model (pay to read) in favor of a transformative contract, supporting publication. Some prominent university libraries have dropped subscription contracts with Elsevier altogether.

¶123 While there is a growing trend to change journal publication (e.g., Ohio State's contract with Taylor & Francis and also Elsevier's Digital Commons),²⁴² little has changed in the way articles are published: *Peer-reviewed* journals publish the work of the tenured and tenure-track members of the academe, and sometimes that of nontenured faculty. Our experience is that the established peer-reviewed journals tend not to be open access.

¶124 How could academic libraries participate in the transition to publication in open access enterprises? First, nothing is possible without strong partnerships with the faculty. While librarians may never review and select articles—faculty will do so, within their specialty—the fact that libraries already pay for and manage digital platforms, which is the digital equivalent of the printing press, serves as the point of departure for our proposal.

¶125 In the world of academic law libraries,²⁴³ this is what has been proposed in a recent article cowritten by Dana with James M. Donovan.²⁴⁴ This giant step taken by academic law libraries into the publishing fray might be explained by the fact that the legal scholarship landscape is easier to master. The vast majority of U.S. law journals are

sustainability for the future. In the end, neither the libraries nor the publishing houses need lose their roles; all the players will be transformed, emerging with new vigor in a modernized publishing system. *Id.* at 11.

240. Ohio State Univ., Univ. Librs., *University Libraries Taylor & Francis Read and Publish Agreement*, https://library.osu.edu/transforming-publishing/TandF (last visited Oct. 6, 2021).

241. See, e.g., Lindsay McKenzie, UC Drops Elsevier, Inside Higher Ed, Mar. 1, 2019, https://www.insidehighered.com/news/2019/03/01/university-california-cancels-deal-elsevier-after-months-negotiations (last visited Oct. 6, 2021); Michelle Taylor, MIT Terminates Elsevier Contract Over Open Access Dispute, Laboratory Equipment, July 7, 2020, https://www.laboratoryequipment.com/566026-MIT-Terminates-Elsevier-Contract-Over-Open-Access-Dispute/ (last visited Oct. 6, 2021); Susan Hudson, University Drastically Cuts Elsevier Subscriptions, The Well, Apr. 13, 2020, https://thewell.unc.edu/2020/04/13/university-drastically-cuts-elsevier-subscriptions/ (last visited Oct. 6, 2021). Paul adds that the University of Missouri System has also cut Elsevier subscription contracts in 2020 due to budget constraints.

242. Bepress, *Digital Commons*, https://bepress.com/products/digital-commons/ (last visited Oct. 7, 2021). Bepress is now owned by Elsevier, *see supra* note 228.

243. Outside of law, this proposal remains problematic because the big journal publishers still own the *high-impact* journals. Nevertheless, libraries may step up their knowledge-production role by creating a niche; as tenure is dwindling and nontenured faculty is on the rise, the library can step in to publish articles where faculty do not rely on the impact ranking of an established journal. In addition, when tenured faculty no longer need the "approval" of prestigious publishers, they too may want their work to be out there through faster publication technologies such as open access journals. Tenured faculty might care less about traditional placement. Librarians can start small but, in the right conditions, what constitutes a "top ranked journal" might, over time, become a library-published open access journal.

244. See Neacsu & Donovan, supra note 225, at 436-37.

not peer-reviewed, and while the most influential journals are those from the top-tier law schools, they all work in the same way. Legal scholarship is selected and edited by students: quite often the work of their professors. Nevertheless, as incestuous and unprofessional as that may sound, American legal scholarship has been and remains rigorously done. An anomaly, perhaps, but in the current environment, the students may be the only brave ones to lead us to open debate on uncomfortable issues.

¶126 Besides periodicals, we have already described an example of rapid book publishing by law libraries. 245 Certainly, academic publishing is a complex endeavor, and some faculty are interested in royalties, but the current pandemic has changed the rules of the game. As such, what might have been unimaginable a few months ago is thinkable today. Faculty, while understandably reluctant to bypass the prestige of academic university presses, may view library publishing on Digital Commons or similar platforms as an option for digital-born, collaborative projects, which need to be produced faster than the regular academic publishing cycle allows because of the timeliness and impact of their topic or for any other academic reasons.

¶127 Particularly apropos is Katharina Pistor's *Law in the Time of COVID-19*. Dana worked closely with Pistor. In early April, Pistor felt that much of the information floating around about the legal implications of COVID was not well-grounded. As Pistor related to Dana, she first proposed the book's concept on LinkedIn, but it took emailing specific faculty members to secure commitments. Eventually, the e-book was written within four weeks and published on Columbia Law School's instantiation of the Digital Commons.²⁴⁶

¶128 For Pistor's book, all of the contributors were faculty members. They provided the peer review to their colleagues, and some also provided the content and copy editing. No one received any supplementary remuneration, in addition to their salary, for their work on this project. The work was then collected and formatted for publication by a faculty assistant and a librarian. This example shows that some basic functions of academic publishing can happen with minimal cost.

¶129 The library played an important role. The subsequent indexing, tagging, and metadata creation were added by a library staff member, the scholarly repository coordinator, whose primary role is to manage the law school's Digital Commons account. In this instance, the coordinator had to manage the publication of a digital-born new work of scholarship. Luckily, her labor was in large part automated. Once logged into the Digital Commons, the coordinator chose the option to create a new post in Columbia Law's "Book Gallery," 247 and then filled in the online submission form with different metadata, such as Title, Author(s), Description, Publication Date, Disciplines, Keywords,

^{245.} See supra notes 112-118 and accompanying text.

^{246.} COLUMBIA L. SCH. SCHOLARSHIP REPOSITORY, *Law in the Time of COVID-19*, https://scholarship.law.columbia.edu/books/240/ (last visited Oct. 7, 2021).

^{247.} See Columbia L. Sch. Scholarship Archive, Books, https://scholarship.law.columbia.edu/books/ (last visited Oct. 6, 2021).

and so on. There is also the option to upload a book cover image, the file of the book, plus any additional files. Once everything is filled in correctly, the form is submitted, the site gets updated, and the new book is added to the gallery in the repository. That work took a couple of hours.

¶130 Pistor's e-book contains links to many other resources as well. The authors plan to update the book with new information, and Pistor hopes to create a stand-alone website and distribute the book on various e-book platforms. For now, it is available to download, for free, from Columbia Law School's scholarship repository site. 248

¶131 This instance may seem specific to COVID, but it stands out as an example of collaboration and partnership. Academic libraries could take on new roles adding their services to the existing archival model, beyond rescuing the quaint: taking over the entire born-digital content, whether it is journal or book publishing. The talent exists, as well as the initiative and, more importantly perhaps, the need. In today's climate of *ideatic* intransigency, libraries can *lead* the way in partnership with their faculty and produce works of scholarship in conditions similar to those imposed by the viral pandemic: thoughtful, meaningful, and fast. Having considered technological and institutional factors, next we address geopolitical and social epistemology influences.

Geopolitical Factors and Resources

¶132 As already mentioned, geopolitically, FCIL may play an increasing role that reaches beyond lawyers graduating from the top law schools to lawyers graduating from all levels of the social stratum.²⁴⁹ Already immigration law, including its humanitarian aspects of refugee law, is increasingly exercising its influence. According to the UN High Commission on Refugees (UNHCR), 82.4 million people have been forced to flee their homes across the world.²⁵⁰ Human rights law is elbowing its way among academics who wish it to play a role in influencing U.S. constitutional interpretation, at least with respect to civil rights.²⁵¹ There is also a growing interest in transnational law—a field where not just nation-states but provinces, U.S. states, municipalities, tribes, and NGOs are acting on the international stage to fashion law.²⁵² Often, the issues are shared environmental concerns such as water resources.²⁵³

^{248.} See supra note 246.

^{249.} See supra ¶¶ 105-09.

^{250.} UNHCR, Figures at a Glance, June 18, 2021, https://www.unhcr.org/en-us/figures-at-a-glance.html (last visited Oct. 7, 2021).

^{251.} See, e.g., Martin A. Geer, Human Rights and Wrongs in Our Own Backyard: Incorporating International Human Rights Protections under Domestic Civil Rights Law—A Case Study of Women in United States Prisons, 13 Harv. Hum. Rts. J. 71 (2000); Natsu Taylor Saito, Beyond Civil Rights: Considering "Third Generation" International Human Rights Law in the United States, U. Mia. Inter-Am. L. Rev. 387 (1996/1997): Michael J. Perry, Human Rights in the Constitutional Law of the United States (2013).

^{252.} See Transnational Law, Black's Law Dictionary (9th ed. 2009).

^{253.} See, e.g., Nigel Bankes & Barbara Cosens, The Future of the Columbia River Treaty,

¶133 FCIL and related topics are challenging for librarians. In an era constraining purchase of print resources, increasingly there is a need for cheaper online solutions for foreign materials. This is both a huge challenge and an opportunity for librarians who make FCIL available and produce guides to such research. Remember, nearly all of Columbia Law Library's web guides are devoted to FCIL, with 17,390 views last year.²⁵⁴ In comparison, UMKC's law library had about 10 percent of its traffic directed to its FCIL LibGuide.²⁵⁵ Whether small or great, law libraries have to expend resources and expertise on FCIL.

¶134 The outermost ring of Deibert's model considers geopolitical factors, but it also mentions resources—a subject libraries have so far neglected. Suffice it to say that the Durham Statement set forth an imperative to move law reviews and journals online from print (a move to protect natural resources) as well as making them open access. As already mentioned, we have grave concerns that, going forward, legal resources, including AI, will increasingly become the providence of BigLaw, and that many solo and small firms, not to mention self-represented individuals, will be cut off from access to law. Access to the law is fundamental to the rule of law.

Cognitive Authority and Social Epistemology as Factors

¶135 We have discussed AI at several points,²⁵⁸ but both within that field and law, there is a real crisis as to what is our social epistemology. The crisis stems from the single search bar and whether legal research will be about querying primary law (mostly case law) or will include the secondary commentary developed over generations, such as *Williston on Contracts*, *Nimmer on Copyright*, *Moore's Federal Practice: Civil*, or even the *Restatements*. It also stems from whether access to law reviews and other scholarly papers through free services and HeinOnline will replace other secondary editorial commentary.²⁵⁹ A future that contemplates powerful searches of primary law is really a disintermediated future, without the aid of indexes, tables of contents, topic and key numbers (except as incorporated into AI) and, really, commentary from proven and trusted scholars in the various fields of law. It is the end of the treatise and the rise of AI. At the same time, the future portends open access to journals, most of which do not target practitioners but are increasingly free to them. Will open access to scholarly journals actually help attorneys practice law? If so, that is a secondary effect of the publications. It is non-journal secondary material, with exhaustive treatment and targeted to

June 11, 2012, https://munkschool.utoronto.ca/wp-content/uploads/2012/07/Bankes_and_Cosens_POWI _2012.pdf (last visited Oct. 7, 2021).

^{254.} See supra notes 172-173 and accompanying text.

^{255.} See supra note 172 and accompanying text.

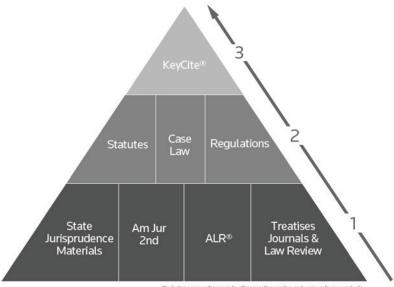
^{256.} See supra ¶¶ 20−39.

^{257.} See supra notes 211-212 and accompanying text.

^{258.} See, e.g., supra ¶¶ 97−100.

^{259.} Colleagues at the 2021 Boulder Conference who reviewed this article raised this issue.

the practicing attorney or presiding judge, that will suffer because of fiscal barriers to access and because of the omnipresence of free scholarly materials. The paradigm in figure 30 of starting first with encyclopedic commentary to build background knowledge and then narrowing issues as research is finally conducted in primary sources of the law (capped by KeyCite) cannot function in such an environment.²⁶⁰



- *Includes cross-references to other practice guides and various forms products.
- Begin your research with secondary materials to build a good foundation and find leads to primary law.
- Advance to primary authority-statutes, cases, and regulations-the building blocks of your research.
- 3. Update and finalize your research using KeyCite, West's citation research service.



Figure 30
West Pyramid of Research Process
Used by permission of Thomson Reuters

Conclusion

¶136 We have adapted Ronald Deibert's ecological holistic media theory to reject a technologically deterministic view of libraries as having no future. We have considered the role of libraries, especially law libraries, in the social epistemology or cognitive authority of the legal community, the role of libraries as knowledge institutions (in multiple facets), the function of technology (including language and media), and geopolitical and physical considerations such as resources. We have reviewed our past in terms of reading and the development of libraries, and speculated about our future through the holistic ecological lenses. Our answer to AALS President Vicki Jackson is a resounding, "Yes, even libraries!" and to Yale's Dean Heather K. Gerken, "Remember the Library!"

¶137 While our past is firmly grounded in reading books and libraries with large print collections, what continues on is the role of librarians with respect to social epistemology or cognitive authority. Just as with books, which databases we license are statements about what society should trust. Our catalogs continue to be sources that shape knowledge domains within law and without. What we teach our students remains important in their own process of recognizing the cognitive authority of their chosen fields.

¶138 We live in an age of networks. Digital networks are easy enough to name, but libraries are also networks of relationships of expertise and institutions devoted to the common good. Librarians, not the books, databases, or even the catalogs, stand preeminent in all of this. Furthering the metaphor of the digital age, libraries are increasingly portals where impact on information use should be the primary metric. That said, libraries still maintain an aspect of transformative physical spaces and function as community centers (including in academic settings).

¶139 In discussing current technology, we have argued for the continued relevance of human-intermediated tools for accessing legal information. Ideally, disintermediated technologies (such as AI search algorithms) are combined with human-intermediated elements—for example, when Westlaw Edge searches incorporate topic and key numbers and headnotes to identify additional relevant cases. However, we need much more emphasis on editorial content from recognized sources of cognitive authority in particular fields. We also noted the digital divide that favors firms and libraries that are research rich and that puts lawyers and libraries with lesser resources at a significant disadvantage. This may become increasingly true as AI becomes an increasing (and increasingly expensive) factor in legal research.

¶140 Besides geopolitical factors like the increasing role of FCIL, we noted the importance of transnational law and humanitarian law in an age with 80+ million refugees. Libraries are devoting significant time to creating finding aides and guides to such law. Libraries can also play a critical role with respect to access to the law and identifying cognitive authority, which are important prerequisites for the rule of law on the

international stage as well as at home. Resources are also an issue, and the movement of law journals to open access digital formats is encouraging in that respect.

¶141 With respect to the future, we believe that AI in legal research is still a ways from matching Siri on iPhone (at least for common uses) in answering anything but a narrow set of questions. However, it may one day fill an important role and, in retrospect, be as or more significant as the shift from print to digital resources. The disparity of results between research platforms portends to be problematic, however, in establishing a stable cognitive authority, although reiterative searching may help narrow discrepancies.

¶142 Libraries may also play a significant epistemic role by facilitating open-access legal publishing on platforms such as the Digital Commons. Dana has demonstrated that capability with her work on Pistor's book, *Law in the Time of COVID-19*, which was rapidly published and disseminated using the Digital Commons. Perhaps libraries can function as scriptoria before the rise of print libraries. Also important is the function that great law libraries, such as Columbia's, played during the pandemic in providing access to digital copies of works through the HathiTrust Emergency Temporary Access Service. Unfortunately, such services are threatened by lawsuit, such as in the case of a similar service provided by the Internet Archives Open Library, and only libraries in an elevated tier can afford to participate in the first instance. Also, current copyright law may not extend the first sale doctrine to digital lending. Licensing agreements lock down content of e-books, restricting the ability of libraries to circulate materials. This does not bode well for the future.

¶143 We have already summarized geopolitical and resources factors and have nothing new to add here, but we must conclude our analysis with the future of cognitive authority and libraries' epistemic value. Of grave concern is whether secondary source staples survive in a future that today seems to be a single search bar that favors primary sources (particularly case law). Indeed, many of the new legal research platforms have limited or no access to secondary sources. Librarians have a challenge (as well as an opportunity) here to bring secondary staples within the circle of cognitive authority and preserve effective research processes.

¶144 So, in parting, yes, libraries are part of the epistemic foundation of society. Social epistemology or cognitive authority permeates our ecological holistic analysis. Libraries are critical to democratic society, the rule of law, and the functioning of the legal profession. They are not victims to be sacrificed on the altar of technological determinism—they have many features, not only compatible with the current and future information environment, but valuable to the society embedded within it.

^{261.} For instance, on November 17, 2021, Paul asked Siri on his iPhone who won the last Chiefs' game. She answered, "The Chiefs crushed the Raiders by a score of 41-14 last Sunday," which answer can be confirmed as correct on Google's Chiefs website.