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LEGAL RESEARCH AND THE WORLD OF THINKABLE THOUGHTS

Robert C. Berring*

Any attempt to describe the impact of technology on legal information necessarily will say both too much and too little. It will say too little because no description can do justice to the significant structural transformation that the legal research universe has undergone over the last five years. It will say too much because although technology has changed the form of legal information, the functional basis of legal sources remains the same.

The recent change in the world of legal information is so profound that it creates a generation gap between those who learned their research skills before the change and those coming through the system now. For the traditional researcher, evidence of a change can be found everywhere. The world of established sources and sets of law books that had been so stable as to seem inevitable suddenly has vanished. The familiar sets of printed case reporters, citators, and secondary sources that were the core of legal research are being minimized before our eyes. Indeed, the library as a physical space is fading in importance. Law firms across the country are jettisoning sets of books; the books can no longer pay the rent for the space they occupy.¹ New lawyers who are joining these firms are accustomed to working on legal research problems on the computer at the desktop. They no longer think of a library as a three-dimensional place where

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1. In the week preceding April 4, 2000, there were two offers of sets of legal materials made on the list-serv "law-lib." Law-lib is a list-serv that is used by law librarians. "Free for the cost of shipping" is a familiar posting on this list. Law firms and libraries are giving their collections away.

information is sought.² Even the system of citation is transforming.³ To any lawyer who graduated from law school in the 1980s, this will appear to be a change of the most profound type. Having given a colloquium for members of the faculty at Boalt Hall Law School, I can attest that the changes can be almost frightening to them.

Yet there is a danger in over emphasizing the impact of technology because the format change has not truly altered the functional basis of the materials of legal research themselves. Judicial opinions are still generated in much the same way, as are new legislative enactments and administrative pronouncements. Indeed, the judicial part of the equation is holding most steady. Though many courts now post their decisions on websites and bulletin boards, and many are even experimenting with the new forms of format neutral citation, most members of the judicial branch are well on the “old style” side of the generation gap. It may be that the inherently conservative nature of the judiciary, so central to the ordered development of the common law, may introduce a measure of calm in the roiling storm of technological change. The heart of the law—the primary sources themselves—remains constant. When I began teaching Advanced Legal Research in 1982, I tried to make the students understand the nature and function of cases, annotated codes, and citators. My hope was that rather than just learning to look up one scrap of information in a set, the student could grasp how the materials were produced. If the student could understand the organizational dynamic behind a case citator or an annotated code, the task of research became much simpler. Putting information in context gives the researcher a powerful tool for understanding legal information. Knowing how legal information actually works makes one a far superior researcher. It also insulates one from changes

2. I have been recommending Richard Dooling, *Brain Storm* (Picador USA 1999) to colleagues. The protagonist of this novel is a young associate at a St. Louis law firm. He is a master researcher who prevails through his cyber skills. Though it is one of the few novels that I have ever encountered in which a researcher is triumphant, and much of it is about research, there is no mention of either a library or librarian.

3. See e.g. Coleen M. Barger, *The Uncertain Status of Citation Reform: An Update for the Undecided*, 1 J. App. Prac. & Process 59 (1999) (comparing systems of format neutral citations).

technology may bring. Lawyers today still need the same understanding.

But rather than dwell on the contradiction of technology's impact on the surface of legal research, my focus here lies one level deeper. The habits of the new generation of legal researchers point toward a change in the way that we can *think* about the law; indeed, such a deep-rooted change is more important than any easily observable surface alteration. The best way to illustrate this change is to use the ultimate legal classic, William Blackstone's *Commentaries on the Laws of England*,⁴ as an example.

I. BLACKSTONE AND THE ORGANIZATION OF INFORMATION

Blackstone's *Commentaries* stands as one of the most influential legal works in the English language.⁵ The volumes are the beginning point of the modern common law. Still in print, they remain readable, and they have set the tone for the manner in which we think about the law.

Blackstone's *Commentaries* began as spoken lecture. The original set was the printed record of his lecture series at Oxford University. Blackstone contended that he published the lectures because he felt that pirated versions of his students' notes—versions that were incomplete or incorrect—were being circulated. It is important to note that these lectures were not part of the standard fare of Roman and Civil law then taught at Oxford. The Roman and Civil law were viewed as scholarly and worthy of study. But Blackstone had failed to win appointment to the Viner Chair in Roman law so he turned to lecturing on the

4. William Blackstone, *Commentaries on the Laws of England* (1st repr. ed., U. Chi. Press 1979). I prefer to use the 1979 University of Chicago reprint of the first edition. This paperback set of four volumes is in print and is still obtainable. Original editions of *Blackstone* have rocketed in value in recent years. Early editions of *Blackstone* are avidly sought by book collectors who know nothing about law, but who are attracted to famous books. As paper books become more and more rare, it is likely that such artifacts of the age of printing will become even more expensive.

5. The literature on Blackstone is rich and deep. My favorite treatment remains Daniel J. Boorstin, *The Mysterious Science of the Law: An Essay on Blackstone's Commentaries* (U. Chi. Press 1996). For those who think that Blackstone lacks relevance in modern times, recall that Duncan Kennedy's attack on Blackstone, *The Structure of Blackstone's Commentaries*, 28 *Buff. L. Rev.* 205 (1979), was one of the cornerstones of the Critical Legal Studies movement.

common law as practiced in England. The lectures proved immensely popular, leading to the aforementioned circulating notebooks.

Two things stand out. First, Blackstone was lecturing to young aristocrats and gentry. He was not training specialists. He was attempting to educate young Englishmen who would need to know about the common law if they were to administer their property well. Second, the common law that he was talking about was a hodge-podge of local practice and custom. It was not viewed as scholarly or serious in nature. It was not what scholars studied; it was the stuff of daily life.

Blackstone took a messy smorgasbord of common law doctrine and practice and organized it into a comprehensible series of propositions. He supplied a structure of categories and concepts that fit the existing data.⁶ Just as important, his explanation of how things worked was clear and easy to understand. This made his lectures popular, and when put in printed form, produced a set of books that became a spectacularly successful skeleton for the law. Blackstone organized and systematized the common law so that it could be logically approached.⁷ This made it possible to learn about what the law was and to use that knowledge. Now the system made sense.

More than an influential work on English law, the *Commentaries* became the cornerstone of American law. The work went through numerous editions, many designed specifically for the use of practitioners in the United States.⁸ A version of Blackstone's *Commentaries* traveled in the saddlebags and trunks of lawyers throughout America. There is some irony in the fact that the most influential law book in the

6. Here is Blackstone describing the manner in which the ideal lecturer on the common law should proceed: "He should consider his course as a general map of the law, making out the shape [sic] of the country, its connexions and boundaries, it's [sic] greater divisions and principal cities." See Blackstone, *supra* n. 4, at 35.

7. This essay is not about Blackstone per se. It is worth noting that some feel that he borrowed much of his structure from others. I do not think it worth bothering about. It was Blackstone's version that changed the way the law was conceptualized and that is what matters.

8. See generally Catherine S. Eller, *The William Blackstone Collection in the Yale Law Library: A Bibliographical Catalogue* (Lawbook Exch. 1992). Originally printed for the Law Library by the Yale University Press, this authoritative work lists more than 130 pages of editions of Blackstone's *Commentaries*.

United States was written by a British academic, but a book that set forth a rational framework for understanding the organization of the common law had great appeal.⁹ As the infrastructure of the legal system in the United States grew, the need for an explanation of the law was paramount. The *Commentaries* met the need for a comprehensive and comprehensible structural analysis of the common law. Once its authority was accepted, this analysis made life easier.

Blackstone's subject arrangement of the common law was followed by other great information organizers.¹⁰ While countless hands have worked at this effort, a few are especially important. Dean Christopher Columbus Langdell at Harvard Law School created the modern law school in 1870, and with it the first-year curriculum. A close examination of the structure of Langdell's work in shaping the law school curriculum—a curriculum that persists today—shows that it is a descendant of Blackstone's universe. Langdell's belief that law was at heart scientific, and subject to discovery through the reading of common law cases, flowed smoothly from Blackstone. The fact that first-year law students all over the United States still study the cluster of common law courses that Langdell delineated shows the power of the classification system that he developed.

A few decades later the West Publishing Company began the American Digest System. This system sets out a subject classification system that purports to describe every possible legal situation that can exist. The closed-ended universe of classification thus created was built on a structure of topics and key numbers that allows for the detailed sorting of legal issues into neat categories and sub-categories. A quick look at the seven major divisions of the American Digest System shows that they are closely related to Langdell's vision of the law, and, hence, to Blackstone's vision of the law. The breakdowns of key numbers within the topics also correspond to the language and concepts of Blackstone. Because each of these developments

9. Lawrence M. Friedman, *A History of American Law* 88-89 (1st ed., Simon & Shuster 1973) asserts that Blackstone's *Commentaries* "provided an up to date shortcut to basic English law." He acknowledges that "Blackstone's impact on American legal practice was at least potentially immense."

10. Mary Whisner, *Bouvier's, Black's, and Tinkerbelle*, 92 L. Libr. J. 99 (Winter 2000) presents a wonderfully readable discussion of how universally accepted authority is established. Blackstone was definitely a "Tinkerbelle." *Id.* at 102 n. 8.

builds on and affects the others as well as being affected by them (remember, new editions of Blackstone's *Commentaries* kept coming out), they became entangled into one system. Later developments like the Restatement movement fit neatly into the same pattern.

II. THE IMPORTANCE OF CLASSIFICATION

Questions concerning categorization and classification can be profound. While we may think of a classification system that we use as mechanical, such systems can be much more than that. In 1999, two professors at the University of California, San Diego published an important book titled *Sorting Things Out*.¹¹ In the book, Professors Susan Leigh Star and Geoffrey C. Bowker make a cogent case for the determinative power of classification systems. Though they use medical classification systems as their model, the same principles apply to legal classification systems.

They argue that decisions made at the time of a system's construction often become enshrined within the system itself and become substantively important on their own. Original decisions that are made for bureaucratic convenience or to reconcile competing claims sink into the texture of the system itself. As time passes, the fact that a decision was made at all disappears. "Good, usable systems disappear almost by definition. The easier they are to use, the harder they are to see."¹² Eventually classification decisions that were once based on the banal realities of constructing a workable sorting process transform that very process. Now this early decision becomes the only possible outcome; the result appears to be natural. Indeed, those using the system see no decision at all. Because those who use the system tend to conceptualize in terms of the system and, as a system matures, it becomes authoritative, the classification system simply describes the universe. Researchers mature using

11. Geoffrey C. Bowker & Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (MIT Press 1999).

12. *Id.* at 33.

it, organize their thoughts around it, and it then defines the world of “thinkable thoughts.”¹³

This is what has happened to the world of legal information and the world of legal thought. The confluence of Blackstone’s categorization structure, the American Digest System, legal education, and all of those trained within it have created a conceptual universe of thinkable thoughts that has enormous power. Indicative of its real strength is the fact that those using it do not perceive it; the classification of legal concepts appears inevitable. The manner in which legal ideas are sorted out does not present itself as the product of the work of an eighteenth-century scholar as modified by a series of successors. It presents itself as the law. This conceptual universe has ruled legal thinking for more than a century. But it is dying. Technology, or more properly the capacities of technology, is killing it. The really profound question is what will replace it.

III. THE DEATH OF THE OLD SYSTEM

Technology has invaded the world of legal information. No longer are legal publishers inhabitants of a cozy universe. The two major legal information systems are now owned by large international information companies. What once was a bright-line border between legal information and “other” sources is fading as integrated information providers offer sources of all sorts through legal portals. A typical law student using LEXIS or Westlaw can reach worlds of information that would not otherwise have been part of any law library. A simple click on the computer screen can take today’s researcher from the text of a United States Supreme Court decision to the pages of a news magazine, a trade association publication, or a political journal. It is commonplace to complain about the proliferation of judicial decisions, but the far larger universe of information that is available to the online legal researcher today is not primary source legal material. It is all of the world’s information that lies at the other end of a hypertext link. Legal researchers are awash

13. Dan Dabney, who is formerly of the University of California, Los Angeles School of Library and Information Science faculty, and who is currently working in Research and Development at West Legal Group, was the first person whom I heard use the term “thinkable thoughts” in reference to legal information.

in judicial reports, but that is only a drop in the ocean of information that lies a keypad away.

When LEXIS and Westlaw first came on the scene, they worked within the existing universe of thinkable thoughts. Because their potential customers were lawyers and law professors who were a part of the old tradition, they could hardly do otherwise. So LEXIS and Westlaw replicated the old systems of classification. They loaded the full text of the existing legal information tools into the database, including the headnotes of official reporters. Westlaw continued its American Digest System in the online environment.

One might think that when LEXIS first introduced Boolean searching—a technique that allowed one to search the full text of cases (and other sources) using terms and connectors keyed to the specific language in the text—that a breakthrough in classification was at hand. It is true that Boolean searching held the potential for a major shift in the pattern of information classification, but such a shift occurred at the most glacial of speeds. The problem was that those authoring the documents in the system were still thinking in the old terms. To be a good Boolean searcher of documents written by judges, one had to understand how judges think and how they express themselves. The existing conceptual structure remained in place. It was more likely that one of the databases would load an existing tool, complete with existing index, online rather than trying to develop some new method of conceptualizing the law. Given the fact that even the folks working for the vendors were part of the existing paradigm, this is hardly a shock. The old system held sway.

Moreover, the legal education establishment did not see the new information systems as engines of theoretical change. Training in LEXIS and Westlaw was facilitated by library staff or by representatives of the vendors themselves. Integration of the training into the curriculum was rare. LEXIS and Westlaw organized their files and libraries of specialty information into traditional categories. The online systems and the Boolean search technique represented a crack in the old system, but only that.

However, the real shift in the classification system is now beginning. It is being brought about by the changing habits of

information users—specifically, the newest users of the legal information system. Law students come to law school trained in Internet searching, fully conversant with modern search engines and interfaces. Rather than having legal information shape their perceptions of the world, they are shaping legal information to their *existing* information world. Where the neophyte law student once came into the law library agog at the ranges of shelves of case reporters, today's typical student arrives asking questions about computer access, passwords, and bandwidth. Their expectations are seldom exceeded by what the law school offers; indeed, they are often disappointed. These are students with new demands and a different set of tools. They tolerate very little in the way of traditional legal research training.

These new users are not entering the old universe of thinkable thoughts because they are not limited to the existing range of printed sources that met the law student in 1982. They are not slowly progressing through the old system of learning how to navigate in the literature of the law. These new members of the legal community think in terms of search engines and algorithms that are part of the greater information universe. As they do so they erode the power and place of the old world of thinkable thoughts. They do not reject it; they find it irrelevant.

There are many who clamor for the attention of these new information consumers. The cost of entry into the legal information market is low, and the demographics of potential customers are tantalizing. This essay is being written while the country is in the midst of "dot-com madness."¹⁴ New enterprises that seek the attention of legal researchers abound.¹⁵ Law students today are accustomed to systems that are easy to operate and very fast in the retrieval of results. The information that can be retrieved may come from one of the big legal

14. The lure of "dot-com" employment has led law firms throughout the country to increase associate salaries. Christopher P. Bowers & Neil M. Richards, *Sallie Mae, the Gunderson Effect, and My Plumber*, 3 Green Bag 2d 251 (2000), provide a thoughtful perspective on these recent increases, arguing that perhaps they are not as wonderful as they may seem.

15. While I was writing this essay, I received a written solicitation and two telephone calls from new legal information providers. One has the wonderful name of *Law.com*. See *Law.com* <<http://www.law.com>> (accessed May 25, 2000). Check out the current issue of any bar journal to see advertisements for a full panoply of "dot-com" services and their content.

information providers, or it may come directly from a court or legislature. It may come from a law firm website or from a law library. It may come from an advocacy group or it may come from a large information or entertainment concern. The information may come from anywhere.

The last piece in this puzzle is the breakdown of communication between the legal academy and the legal profession. Elite law schools are divorced from the practice of law. The first year of law school positively creaks with obsolescence.¹⁶ Most faculty members are not members of the bar and have little or no interaction with bar issues. Academic law reviews are not read by lawyers, and bar journals are not read by law professors. These are broad generalizations, but they are at root true. The current fascination in the elite law schools with hiring faculty who have doctorates in economics or a related discipline, rather than practice experience, speaks for itself. The senior faculty at the elite law schools can live in the old universe of information, navigating by the old conceptual maps, but outside their gates the world is changing. This may be one situation where the ivory tower metaphor applies with real force.

So mix a technology that provides wide-ranging information, a new breed of users, and an academic setting that is separating itself from the actual practice of law, and one creates information anarchy. This jumble is fast coming to resemble the world of chaotic legal information that Blackstone found. Sound crazy? Think it through. The old classification system of West topic and key numbers can be an important element in research, but they no longer define the reality of legal thinking. The new generation of researchers is governed by the algorithms of its search engines. There is simply too much stuff to sort through. No one can write a comprehensive treatise any more, and no one can read all of the new cases. Machines are sorting for us. We need a new set of thinkable thoughts.

16. See Robert Stevens, *Law School: Legal Education in America from the 1850s to the 1980s* 266 (U. of N.C. Press 1983). Stevens traces the evolution of American legal education and asserts that "[l]egal education's heritage was one of an inherent conflict between the professional and the scholarly."

IV. BLACKSTONE COME HOME

We need a new Blackstone. We need someone, or more likely a group of someones, who can reconceptualize the structure of legal information. Blackstone simplified the common law by finding common elements and creating an elegant structure. He took what appeared to be a great mess of conflicting customs and cases and he knit them into a coherent fabric. Blackstone helped us gain perspective by lining up the existing information into a reasonable structure. This is not to say that other structures would not have worked, because it is certain that others would have. But Blackstone was *useful*. The odd fact that the *Commentaries* ended up as more influential in the United States than they ultimately were in England is testimony to the fact that they comprised a system that was very useful, but not necessarily substantive.

Most likely, our Blackstone will come in many pieces. I envision a return to individual authority.¹⁷ As the law grows more complex, individuals who can make sense of discrete parts of it will be increasingly valuable. Just as individual judges assembled the early nominative reports, new experts will arise. The opinions that they offer will arrive over one's e-mail system, not in leather bindings. Perhaps they will be available for interactive conversation. When there is such a glut of available information, the need for guides becomes more important. Twenty-first century researchers will yearn for guidance and the reliability of individual expertise. More personal, more interactive, and more specialized, such information systems can hold things together.

Our challenge is to find a mechanism for helping these authorities to develop. Whether the impetus comes from bar associations, the academy, or the judiciary, there is a need for serious attention to this problem. The American Law Institute would appear to be a likely vehicle, but I am not sure that the drivers there are interested. Perhaps a new institution is needed.

17. See Neil Postman, *Building a Bridge to the 18th Century: How the Past Can Improve Our Future* (Alfred A. Knopf, Inc. 1999) for a beautiful discussion of how much it would help us to turn to the thinkers from the Eighteenth Century to guide us in the information age. Postman does not address legal thought as such, but Blackstone lived in the universe he discusses.

These issues are in play, but the crucial point is that the legal information system needs a new set of definitive authorities. We need authorities that can create a new world of thinkable thoughts. It need not be a perfect model, but it has to be one that meets the characteristics of a good classification system.¹⁸ This is especially urgent because there are other possibilities.

V. THE *GOOGLE* FEAR AND THE SPECTER OF RUPERT MURDOCH

*Google*¹⁹ is a speedy, easy-to-use web-based search engine. The researcher goes to the site and puts in key word search terms. *Google* spreads a wide net and brings back answers in a list in which websites are ranked by their value. *Google* judges the value of the answer to one's queries by pointing one towards the website that is most frequently visited by those with a question that resembles the one that you asked. It thus confers authority by analyzing popularity. One is sent where most others choose to go. This is authority via common denominator.

Popularity on the Internet is usually the result of skilled marketing. The best advertisers become the most authoritative sources. It scares me. If search engines like *Google* move into legal information—and there is no reason to believe that they will not—the old structure will not be replaced by anything other than the precepts of advertising. An even finer iteration of the danger is *Ask Jeeves*,²⁰ a website that allows one to produce natural language queries and then answers one's question with text or by pointing one towards the best website. *Ask Jeeves* sells its search technology to other companies and is developing greater sophistication all the time. These are real answers to real questions formulated by computers, without the user having a clue as to the algorithm. Can this be the beginning of a new intellectual system?

Equally frightening is the Rupert Murdoch scenario. Murdoch reigns over his global media kingdom and controls viewer and reader access to information worldwide. He has

18. The dimensions of a good classification infrastructure are beyond the scope of this essay. Table 1.1 in Bowker & Star, *supra* n. 11, at 35, sets out a working set of parameters.

19. *Google* <<http://www.google.com>> (accessed May 25, 2000).

20. *Ask Jeeves* <<http://www.askjeeves.com>> (accessed May 25, 2000).

prospered by understanding how to make information entertaining. This translates into profits.

While the old publishers of legal information—institutions that have largely been absorbed in the recent spate of mergers—were interested in profit, they were also deeply versed in the law. The courts and the academy had influence over them. But just as the new law student comes with information habits intact and wishes to bend legal information to meet her needs, information on the Murdoch model will force legal authority to fit into its needs. As content providers and telecommunications companies fight for access to users, the legal information system could become hostage to the larger world of information commerce. The demographics of lawyers make them very desirable clients. The thought of legal information systems being a part of a large, “infotainment” universe is terrifying to me. The trivialization of legal thought that would result would be a nightmare. Do not scoff; it could happen.

CONCLUSION

This is why I call for a new Blackstone. Consider the alternative. In *The Age of Spiritual Machines*²¹ the brilliant inventor Raymond Kurzweil tells us that within fifty years machines will be our masters and will attain a new level of spiritual consciousness. He asserts that “[o]ver the next several decades machine competence will rival—and ultimately surpass—any particular human skill one cares to cite, including our marvelous ability to place our ideas in a broad diversity of contexts.”²² Perhaps Kurzweil’s predictions will shape our future reality, but I would choose to hope that we humans will stay in control of our lives and of our legal system.²³ The only way that we can do so is to meet the information glut with a new wave of organizational and institutional thinking. It is time to reconceptualize the law, legal categories, and legal education.

21. Raymond Kurzweil, *The Age of Spiritual Machines* (Viking Press 1999).

22. *Id.* at 5.

23. Robert C. Berring, *A Few Parting Words*, 1 Green Bag 2d 227 (1998). This is my own vision of how a world governed by computer programs might look.

To quote from an old Doctor John song, "If I don't do it, somebody else will."²⁴

The opportunity will be there. The glut of legal information will create enormous pressure to find new sources of authority. Will the new sources spring from the best legal minds in practice and in the world of legal education? Or will the new authorities spring from swiftest, slickest, and fastest system? Will the legal researcher soon sit down at her computer screen, speak her question into the computer's voice recognition program and await the answer . . . to be read by the Hollywood star of choice? Will the answer that she receives be determined by an algorithm of which the researcher has no knowledge? Will the real foundation of legal information structure be the lowest common denominator of a global marketing strategy?

Only an enlightened view of information can protect us from such a fate. Law schools and the Bar must begin to take information issues seriously. Decisions about legal information do not just relate to the format of our information, they relate to the very heart of what we do. The invisible structure of thinkable thoughts must be rebuilt. Given the power of the players involved and the inevitable siren song of profit, we cannot rely on serendipity to work this out. The legal profession must make legal information a priority.

This is a call to arms. The legal profession must seize control of its own information destiny. The time is now, the stakes are enormous. Blackstone, come home.

24. Mac Rebannack, *Such a Night*, on *Mos' Scocious: The Dr. John Anthology* (Wea/Atlantic/Rhino Records 1993) (CD recording).