Appellate Jurisprudence in the Internet Age

Michael Whiteman

Northern Kentucky University
Appellate Jurisprudence in the Internet Age

By Michael Whiteman*

“Meet the new boss, same as the old boss.”¹

*Associate Dean for Law Library Services & Information Technology and Professor of Law at Northern Kentucky University, Chase College of Law. The author would like to thank his research assistant Christine Mayhew, as well as Professor Michael Mannheimer and Professor Lawrence Rosenthal for their review and comments on the various drafts of this paper.

¹THE WHO, Won’t Get Fooled Again, on WHO’S NEXT (1971).
ABSTRACT

A close examination of the citation practices of the California and United States Supreme Courts from the twentieth and twenty-first centuries reveals that appellate jurisprudence in the Internet age closely resembles that of the pre-Internet age. These findings, coupled with the continued criticism of legal researchers in the Internet age, call for a retrenchment in training future lawyers in the essential skills of “thinking like a lawyer.” The traditional techniques that have been taught by legal research and writing professors, and their doctrinal counterparts, must remain an essential part of our legal education system. Appellate jurisprudence in the Internet age is the same as it has always been. Whether one uses the Internet or a treatise to find legal information, the analytical skills necessary to determine relevant precedent remains the most important skill for a lawyer in the Internet age.
# Table of Contents

**Introduction** ................................................................................................................ 258

I. Criticism of the Glut of Legal Information and the Skills of Lawyers and Judges who use this Information ................................................................. 258

II. Patterns of Appellate Court Citation .......................................................................... 260
   A. Pre-Internet Age .................................................................................................. 262
   B. Internet Age ........................................................................................................ 263
      1. California Supreme Court Citation Practices ............................................. 264
      2. United States Supreme Court Citation Practices ...................................... 265
   C. Similarities .......................................................................................................... 267
      1. Legal Periodicals .......................................................................................... 268
      2. Other Secondary Sources ........................................................................... 271

III. The Internet’s Impact on the Courts ........................................................................ 273

IV. Best Methods for Legal Research in the Internet Age ............................................. 276

**Conclusion** .................................................................................................................... 279
INTRODUCTION

§1 Since the birth of legal information, lawyers and judges have been tasked with finding the relevant law, applying it to a set of facts, and arguing for an outcome that will solve the legal issue before them. This task has varied in complexity, and over time, the availability of legal information blossomed as the ease of printing legal information became more economical and wide-spread. As legal information began to proliferate, legal commentators lamented that the overwhelming availability of legal information was drowning the lawyers and judges who relied on this jurisprudence to make their legal arguments.

§2 These criticisms continued into the twentieth century and morphed, as we entered the Internet age, into a lament of too much information coupled with the perceived unreliability of the new Internet sources. Some critics pointed to the vast amount of information available on the Internet as changing the landscape for lawyers and judges, including what information judges were relying on when making their rulings, and what information lawyers were turning to when making their arguments.

§3 While it is true that the Internet age has brought with it a second renaissance in the mass availability of legal information, it appears to be an overstatement to say that lawyers and judges are turning away from traditional sources of law to make their legal arguments and decisions. While change is certainly in the air in the world of appellate jurisprudence, a close examination of the sources lawyers and judges are using reveals that appellate jurisprudence has not changed as dramatically as some have feared it would. While the Internet presents some challenges to modern jurisprudence, it also reveals an opportunity for a broader availability of legal information to inform the arguments and decisions of the legal community.

§4 A close examination of the citation practices of the California and United States Supreme Courts from the twentieth and twenty-first centuries reveals that appellate jurisprudence in the Internet age closely resembles that of the pre-Internet age. These findings, coupled with the continued criticism of legal researchers in the Internet age, call for a retrenchment in training future lawyers in the essential skills of “thinking like a lawyer.” The traditional techniques that have been taught by legal research and writing professors, and their doctrinal counterparts, must remain an essential part of our legal education system. Appellate jurisprudence in the Internet age is the same as it has always been. Whether one uses the Internet or a treatise to find legal information, the analytical skills necessary to determine relevant precedent remains the most important skill for a lawyer in the Internet age.

I. CRITICISM OF THE GLUT OF LEGAL INFORMATION AND THE SKILLS OF LAWYERS AND JUDGES WHO USE THIS INFORMATION

§5 Appellate jurisprudence has relied on the fact that there exists a stable universe from which judges and lawyers mine their information so that legal disputes can be resolved and stability can be maintained in the fabric of society. This stability has been undermined as the availability of legal information has grown. One possible outcome of too much legal information is that it shakes the stability relied upon by a fairly static jurisprudence, leaving lawyers to rely on unreliable legal materials and forcing judges to
pick from a cornucopia of legal arguments, undermining the stability of appellate jurisprudence.

To some, this argument will resonate as responding to the recent explosion of legal materials being made available thanks to the ease in which anyone can post information (legal, quasi-legal, or otherwise) on the Internet. The truth is that commentators have been worried about the explosion of legal information and the effects this has had on legal research and jurisprudence for close to two centuries.

As early as 1821, Justice Story, in an address delivered before the members of the Suffolk Bar, proclaimed that “[i]n comparing the present state of jurisprudence with that of former times, we have much reason for congratulation.” \(^2\) As his address unfolds, however, Justice Story sees a move away from reliance on the “reports” as a place from which to draw jurisprudence. Rather, he says that “[o]ur young men of the present day are apt to confine their reading too much to elementary treatises.” \(^3\) Furthermore, as the post-Revolutionary War jurisprudence had increased and diversified the law within the Union, Story wondered if too much was being published, and as to the “reports,” whether “we shall be overwhelmed by their number and variety.” \(^4\) Finally, as Story’s address came to a close, he worried that:

> [t]he mass of the law is, to be sure, accumulating with an almost incredible rapidity, and with this accumulation, the labor of students, as well as professors, is seriously augmenting. It is impossible not to look without some discouragement upon the ponderous volumes, which the next half century will add to the groaning shelves of our jurists.\(^5\)

While it is clear that the shelves of the jurists were not readily sagging under the weight of legal texts in Story’s time,\(^6\) this did not stop the belief that the growth of legal information would negatively impact the jurisprudence of the time. Story’s voice on this subject continued to carry this concern forward, and more than a century later, this same concern reared its head when commentators noted that “[t]here were simply too many cases, and each year added its frightening harvest to the appalling glut,”\(^7\) and that lawyers and judges need to be vigilant as “sources of the law grew more and more numerous.”\(^8\)

While Story and later commentators lamented the “glut” of legal information, they could not have foreseen what was coming down the pipeline with the birth of the Internet.

\(^2\) Joseph Story, *The Miscellaneous Writings, Literary, Critical, Juridical, and Political* 405 (1835).

\(^3\) Id. at 412.

\(^4\) Id. at 417.

\(^5\) Id. at 436.

\(^6\) In fact, Story complained to the President of Harvard in 1829 that “[i]t is indispensable that the students have ready access to an ample law library which shall of itself afford a complete apparatus for study and consultation. . . . At present the students are compelled to resort to my own private library.” Arthur C. Pulling, *The Harvard Law School Library*, 43 LAW LIBR. J. 1, 2 (1950). Around the time of Story’s death (in 1845) the Harvard Law Library had only grown to around 6100 volumes. *History of the Harvard Law School Library*, H ARVARD L AW S CH. L IBRARY, http://www.law.harvard.edu/library/about/history/ [https://perma.cc/V7NV-GB63] (last visited Jan. 28, 2015).


The Internet has made legal information available to all with a high-speed connection. Now, anyone can be a legal publisher through blogs, tweets, and more. This greatly expanded universe of information has created a quandary for lawyers and judges. How can they use this information in a manner that maintains a stable jurisprudence for the times? It has even been suggested that a lawyer who is not skilled in using online information will run afoul of the rules of professional responsibility.  

Several commentators have criticized electronic research and its effects on the research abilities of law students, lawyers, and judges. While there is probably some truth in these criticisms, they reflect a continuation of the time-honored tradition of criticizing the research skills of law students and newly minted attorneys. The one constant that remains is that regardless of the tools used to perform legal research, law students must gain a deep foundation of “thinking like a lawyer.” Thinking like a lawyer encompasses the analytical skills that form the basis for “good” lawyering which allow law students (and future lawyers) to uncover and utilize the basic building blocks of each jurisdiction’s jurisprudence.

We know this to be true because a comparison of earlier citation practices of the appellate courts (as well as research habits of lawyers) with those of the modern-day judiciary and bar reveals that much of what is being done today mirrors the practices of the past. While the Internet age brings new challenges to the legal profession, it has not dramatically altered the foundations by which judges are creating modern-day jurisprudence.

II. PATTERNS OF APPELLATE COURT CITATION

The Internet has changed jurisprudence in many ways, including making a more diverse set of information available to lawyers and judges than ever before. While it is

---


11 See Paul D. Callister, Beyond Training: Law Librarianship’s Quest for the Pedagogy of Legal Research Education, 95 LAW LIBR. J. 7, 9–11 (2003). Professor Callister reviews a long list of criticisms of law student and lawyer research skills. For example Professor Callister cites to an article from 1902: “I have been amazed at the helplessness of law students, and even of lawyers when they go into a library to search for authorities . . . . Law schools should teach their students how to do these things.” Id. (citing Horace E. Deemer, 1 AM. L. SCH. REV. 404, 404 (1902)). (Deemer was a justice of the Iowa Supreme Court.) From a 1981 article Professor Callister quotes: “There has been a great deal of dissatisfaction with [legal bibliography] courses among both students and faculty . . . . There is also some concern about whether these courses really convey the techniques of research.” Id. (citing Rhonda Carlson et al., Innovations in Legal Bibliography Instruction, 74 LAW LIBR. J. 615, 615 (1981)).

12 There has been much written on “thinking like a lawyer” over the past many years. See, e.g., Edwin Scott Fruehwald, Think Like a Lawyer: Legal Reasoning for Law Students and Business Professionals (2013); Frederick F. Schauer, Thinking Like a Lawyer: A New Introduction to Legal Reasoning (2009).
true that a more diverse universe of information is now available, has this necessarily translated into a transformation of the authority that lawyers and judges rely on in formulating modern jurisprudence? The answer appears to be: “No.” A comparison of past and present citation practices of appellate courts reveals that judges (and lawyers through their briefs, arguments, and writings) are relying on the same types of materials as in the past, perhaps with a hint of turning to newer sources on occasion.\(^\text{13}\)

Studies of the types of authority appellate courts rely on in making their decisions show that judges rely primarily on judicial decisions, most often from the highest appellate court in the jurisdiction. Furthermore, judges tend to rely on newer decisions, generally from the past ten years, with fewer citations to older decisions as time passes. It is telling that judges are relying mostly on case law and less on other sources of primary and secondary authorities. These patterns reveal that as lawyers are trained to rely on certain types of precedent, this training continues to influence them throughout their legal career. The Internet age has not dramatically altered the way courts create jurisprudence.

The rationale behind a judge’s use of precedent remains largely unchanged from that of the past century. When a judge cites to a particular source in support of a position, this presumably means something to the judge, and “presumably he anticipates that it will mean something to a reader.”\(^\text{14}\) As judges formulate their opinions, one presumes that each citation is there to bolster the opinion, and to lend it some credibility as it stands as new authority in the jurisdiction. Thus, we can presume that citations are picked with care and not carelessly thrown about for no good reason.

Authority is often used by judges for a number of good reasons, including:

1. “The authority cited sets out the applicable law in the instant case, and the judge has no choice but to apply it. This is a strict doctrine of stare decisis rigidly applied. Under it the judge finds and applies the existing law …”\(^\text{15}\);
2. “The authority cited sets out the applicable law which, as a matter of policy, the judge should apply unless other policy considerations require him to abandon precedent …”\(^\text{16}\);
3. “The authority cited contains a rule which, of several possibly applicable rules, the judge prefers to apply to this case …”\(^\text{17}\); and
4. “The authority cited is in support of the position the judge wishes to take and therefore lends weight to it …”\(^\text{18}\).

Given these possibilities, the choice of authority used should signal to future researchers which sources to turn to when arguing before the court, as those sources of authority will be seen as the most persuasive. An examination of what courts have cited to in both the pre-Internet and Internet ages is therefore useful to help guide attorneys to the authority they should seek in order to formulate the most persuasive argument before the Court. If, as the findings below prove to be true, the greater availability of online

---


\(^{15}\) *Id.* at 614 n.1.

\(^{16}\) *Id.*

\(^{17}\) *Id.*

\(^{18}\) *Id.*
sources is not altering the jurisprudence of the Internet age, then researchers should continue to seek and cite to those sources that judges continue to rely on as authority when crafting their decisions.

A. Pre-Internet Age

¶17 Traditionally, courts were fairly consistent in citing to only a handful of sources when deciding cases. This was due in part to the fact that there were very few sources available to them,\footnote{For example, in 1820 the Harvard Law Library had only 584 volumes in its collection. \textit{History of the Harvard Law School Library}, HARV. L. SCH. LIBR., http://www.law.harvard.edu/library/about/history/ [https://perma.cc/82T7-2GMJ] (last visited Nov. 12, 2015).} and in part to the notions of \textit{stare decisis}, which directed the development of the Common Law. As time progressed, the number of sources began to proliferate at a rapid pace and by the twentieth century, lawyers and judges had a large number of sources from which to formulate arguments and draft judicial opinions.\footnote{By 1932 Article 6 of the Association of American Law Schools called on member law schools to "own a law library of not less than ten thousand volumes." \textit{ASS’N OF AM. L. SCHS., PROCEEDINGS OF THE ANNUAL MEETING} 176 (1932).} There is no need to guess which sources were of paramount importance to lawyers and judges: studies conducted at the time clearly revealed that judicial opinions from the highest appellate court of a jurisdiction were held in higher esteem than any other source.

¶18 In the 1950s, John Henry Merryman undertook to determine what authority the California Supreme Court deemed the most relevant as it decided cases.\footnote{Merryman, \textit{supra} note 14.} An analysis of the judicial opinions of that high court revealed that of paramount importance were the decisions of the court itself, and specifically its opinions from the previous ten years. This same pattern is repeating itself today. An analysis of the modern California Supreme Court and the United States Supreme Court show similar patterns of these courts relying on relatively current authority in their present-day decisions.

Professor Merryman’s study looked at 298 opinions of the California Supreme Court from the year 1950. He looked at what information was cited by the Court in each of those opinions. The most cited authority were recent California Supreme Court decisions. Of the 2,160 California Supreme Court decisions cited, 43% were decided by the Court in the previous ten years (1940–1950), 20% were decided between 1930 and 1939, and the rest were decided prior to that time.\footnote{\textit{Id.} at 653.} This same pattern is repeated with the 1,132 citations to the lower California appellate courts.\footnote{\textit{Id.}}

¶19 Citations to authority outside of the California court system drop dramatically. The majority of the non-California court decisions come from citations to the federal courts and courts of the various states. There were 582 citations to federal court decisions and 562 citations to decisions of other states’ courts.\footnote{\textit{Id.}} Beyond primary law, the California Supreme Court cited law reviews 87 times, the Restatements 32 times, legal encyclopedias 134 times, and miscellaneous other secondary sources 195 times.\footnote{\textit{Id.}}
clear from these findings that the key piece of authority relied upon were recent decisions of the California Supreme Court, regardless of the fact that the California Supreme Court Justices had access to many other sources as they drafted their decisions.

B. Internet Age

¶20 “Case law is king” was the clear result of the previous citation studies in the pre-Internet age. With the overwhelming glut of information now available at a touch of the key stroke, one may assume that this trend would give way in more recent judicial opinions. The analysis of current appellate court citation practices conducted for this article concludes that the use of precedent in the Internet age is similar to what existed in the pre-Internet age. While the resources available to lawyers and judges have expanded, the use of precedent remains the same. This should bring some measure of comfort to those who practice before the courts, because precedent remains the means by which we maintain uniformity and harmony to the law, to treat all of those who appear before the courts in the same manner.26

¶21 In the Internet age, one might argue that newer authority would more naturally be cited because researchers most commonly turn to computers to conduct their research.27 When one performs a search, the computer’s search algorithm is set up to bring recent cases to the top of the results list. One drawback to this set-up is that older authorities might be ignored in favor of the easier-to-find newer authorities that are at the top of the results list. Researchers might naturally gravitate to grab the first and easily available source that pops to the top of the list.28

¶22 While this might be a truism in today’s research world, especially given that recent studies of lawyer research habits reveal that lawyers are turning more and more to the Internet to begin their research,29 does this really point to a shift in how attorneys and judges are conducting research and relying on precedent? Recent studies suggest otherwise.

¶23 If we contrast the findings of the Merryman study30 with the findings of this article’s study of the modern citation practices of the U.S. Supreme Court and the

26 As Llewellyn eloquently stated “As the social system varies we meet infinite variations as to what men or treatments or circumstances are to be classed as ‘like’; by the pressure to accept the views of the time and place remains.” Llewellyn, Case Law, 3 ENCYC. SOC. SCI. 249 (1930), quoted in Merryman, supra note 14, at 626.
28 One expert in the field of library science would describe this as the “Principle of Least Effort” that has become prevalent in the Internet age. THOMAS MANN, LIBRARY RESEARCH MODELS 91 (1993).
29 A survey of 190 young attorneys from small to large law firms found that on average these lawyers spent eighty-four percent of their research time using for-pay or free online resources. Steven A. Lastres, Rebooting Legal Research in a Digital Age LLRX (Aug. 10, 2013), http://www.llrx.com/features/legalinstruction.htm [https://perma.cc/857Z-LHJ5].
30 Merryman, supra note 14, at 653.
California Supreme Court, we see that today’s appellate courts rely on very much the same types of precedent as the courts did in the past. The Merryman study revealed that the California Supreme Court relied most heavily on recent (previous ten years) appellate decisions from the California Supreme Court to come to its decisions. In the Internet age, with online information available at a researcher’s fingertips, the same pattern appears to continue to guide the citation practices of appellate courts.

1. California Supreme Court Citation Practices

This article examined opinions of the California Supreme Court for 2014 in order to update Prof. Merryman’s study. Fifty years later, the California Supreme Court, even with all of its access to multi-jurisdictional primary and secondary sources at its electronic fingertips, maintained its pattern of citing mainly to recent appellate court opinions from the California high court. Within the 221 cases decided by the California Supreme Court in 2014, the most cited authority were past California Supreme Court decisions. Of the 2,660 California Supreme Court decisions cited, 51% were decided by the California Supreme Court in the previous ten years (2004–2014), and 49% were decided from 2003 and prior.

Surprisingly, this pattern did not repeat itself with citations to decisions of the lower California courts. Of the 447 lower California court opinions cited, only 39% were decided between 2004 and 2014. The rest of the decisions were decided in 2003 or earlier. It is interesting to note that unlike Merryman’s study, where the California Supreme Court cited to approximately 50% fewer lower court cases than Supreme Court cases, in 2014, the California Supreme Court’s citations to California lower court cases were only 17% of the number of citations to California Supreme Court cases. This lower citation pattern stands in stark contrast to the fact that the entire body of California case law would be readily available to the Justices on their computers.

The California Supreme Court continued to cite to authority from outside of the California court system, much as it did during the period of Merryman’s earlier study. But unlike the results in Merryman’s study, citations to authority outside of the California court system dropped off dramatically. There were only 556 citations to decisions of the U.S. Supreme Court, 134 decisions to the U.S. Courts of Appeals, twenty-six decisions to the lower federal courts, and only 177 citations to the decisions of other State courts.

31 Id.
32 See Appendix B for a chart of the California Supreme Court 2014 citation practices.
33 This study was developed through a search of the Westlaw database of all California Supreme Court decisions, limited to those decided between January 1, 2014 and December 31, 2014. The search returned 221 results, which were then sorted by date. Each of the 221 cases were read and the number of citations tallied. For each opinion, every citation the court referenced was placed in a source category. Citations were counted only once per opinion, for example if the Court referenced one case at five different points in the opinion it was only included once in the total count for that category. However, if the same case was cited in five different opinions it was counted five times in the total count for that category. Citation to the case below was not included in the count. This study did not include citation to statutes or regulations for two reasons: (1) Merryman did not include them in his earlier study, and (2) statutes and regulations, when cited, tend to be controlling. Jurisprudence is actually built around the interpretation of these controlling authorities. Thus we turn to judicial decisions, and secondary sources to help interpret what these authorities mean.
¶27 This drop-off in citations to authority outside of the California court system continued with citation to secondary sources. The Court cited law reviews only forty-nine times (almost half the number cited in the Merryman study), other secondary legal sources eighteen times, non-legal sources six times, and Internet sources only sixteen times.

¶28 These findings reinforce that jurisprudence remains wedded in the recent decisions of the appellate courts from within one’s own jurisdiction. As in Merryman’s study, recent decisions of the California Supreme Court were the key source of authority. This remained true regardless of the fact that the 2014 California Supreme Court had access to far more legal and non-legal information than its counterpart did in the 1950s.

¶29 Perhaps this was a California anomaly? In order to provide further support for these results, an analysis of the citation patterns of the modern United States Supreme Court was undertaken to check against the California results. Like we were able to do with the California Supreme Court, we are able to look at past citation practices of the United States Supreme Court and compare them with present practices.

2. United States Supreme Court Citation Practices

¶30 A study, which focused on the decisions of the United States Supreme Court from 1946 to 2005, reveals that the Court in both the pre-Internet era and the Internet era maintained its practice of citing to recent decisions of the Court. According to the study, “[t]he effect of going from being recently decided to just 10 years of age reduces a precedent’s value by 65 percent and 72 percent at the Supreme Court and courts of appeals, respectively.” These results are consistent with earlier studies that came to this same conclusion, the difference being that this study included decisions penned during the Internet age.

¶31 Almost ten years after this study, and well into the Internet age, the citation practices of the Supreme Court remain consistent. A study conducted for this article of the decisions of the United States Supreme Court’s 2012 Term reveals a heavy reliance on more recent authority by the Court. Similar to Merryman’s study, the findings of the 2012 Term reveal that the Court cited to 1445 of its own decisions. Of these, 672, or 46.5 percent, were from the last twenty years. This number is in line with those of the Merryman and Black-Spriggs studies.

34 Ryan C. Black and James F. Spriggs II, The Citation and Depreciation of U.S. Supreme Court Precedent, 10 J. EMPIRICAL LEGAL STUD. 325 (2013).
35 Id. at 327.
37 See Appendix A for a chart of the 2012 Term citation practices.
38 This study was developed by reviewing the seventy-nine opinions from the U.S. Supreme Court’s 2012 term. Each of the seventy-nine cases were read and the number of citations tallied. For each opinion, every citation the Court referenced was placed in a source category. Citations were counted only once per opinion, for example if the Court referenced one case at five different points in the opinion it was only included once in the total count for that category. However, if the same case was cited in five different opinions, it was counted five times in the total count for that category. Citation to the case below was not included in the count.
¶32 The Court’s citation to the decisions of the Circuit Courts of Appeals reveals an even wider divide between more recent and past decisions. The Court cited to the U.S. Courts of Appeals 349 times. Of these, 274 (78.5%) were from the last twenty years. This pattern is also present in the other authority cited during the term. For example, the Court cited to 182 state court decisions. Of these, 122 (67%) were from the last twenty years.

¶33 In keeping with the pattern that emerges from all of these studies, citations to non-judicial opinions remain relatively few. The Court cited to only seventy-four law review articles, and to only thirty-seven Internet sources. The Court also cited to a miscellaneous number of non-legal sources a total of 167 times. Once again, this low citation rate runs counter to the fact that the Court had unprecedented access to legal and non-legal information. Judicial decisions remained the “king of precedent” and the bedrock of the Internet age’s jurisprudence.

The idea that researchers, regardless of whether they have quick, easy access to online information, will rely on newer precedents appears to have less to do with the research habits of the lawyers and judges and more to do with societal influences. “[T]he informational value of court opinions depreciates as they age. As society evolves and law changes due to economic, social, and political developments, the extent to which a precedent remains pertinent for deciding legal disputes diminishes.”

¶34 William Landes and Richard Posner first posited this position in 1976, when they wrote that a precedent “depreciates in an economic sense because the value of its information content declines over time with changing circumstances.” Thus, it makes sense that as society changes and progresses, more recent precedent, no matter how discovered, will be more meaningful as judges craft tomorrow’s jurisprudence.

Put another way, earlier precedent will tend to lose its value over time due to being “superseded by other rulings or because the area of law it governs becomes so settled that the Court no longer hears cases that fall under the scope of the precedent.”

Furthermore, it is common practice for appellate courts to look to the briefs submitted by the attorneys for an initial determination of the legal questions posed, and the precedents that support the positions put forth. In three studies of the effect of briefs on the appellate courts, the authors’ findings are consistent with the major themes revealed by the Merryman study and the subsequent studies conducted for this article.

39 See Appendix C.
40 Black & Spriggs, supra note 34, at 325.
41 Landes & Posner, supra note 36, at 263.
42 Landes and Posner offer the following illustration of how this works: “To illustrate, a decision involving a collision between two horse drawn wagons is bound to lose some of its precedential value when wagons are replaced by cars and trucks, and a decision turning on the difference between ‘trespass’ and ‘trespass on the case’ may lose all of its precedential value when the common-law forms of action are abolished by statute.” Id.

266
One of the main results of these studies was that more experienced counsel tended to submit briefs that ended up on the winning side more often than not. One hypotheses put forth by these studies was that “more experienced, expert counsel . . . would be expected to identify precedents that have greater informational value to the court . . .”45 Decisions of the circuit courts and the Supreme Court were more likely to be cited. “By grounding an opinion in the law of the circuit or the decisions of the U.S. Supreme Court, a judge will enhance the legitimacy of that decision.”46 In keeping with the overall premise of this article, the studies also found that newer cases were cited more heavily, as “[o]lder cases may also lack the salience and influence of more recent precedents.”47

¶35 The lessons law students, attorneys, and judges can draw from these studies point to the fact that the Internet age has not caused a change in the underlying precedents upon which judges rely to create our jurisprudence. As such, researchers should continue to learn how to identify the most relevant judicial decisions from one’s jurisdiction and use those as the major underpinning for one’s argument before any court.

C. Similarities

¶36 The Internet age has expanded the universe of sources that are available to attorneys and judges as they research legal problems. Much like the citation practices revealed above, the manner in which courts and the legal profession view secondary sources remains consistent in the Internet age, as it had in the pre-Internet age.

¶37 In the pre-Internet age, law students were taught that they should rely on primary sources to build their legal arguments. Secondary sources were to be used as a way to find the most relevant primary sources.48 The Merryman study pointed out that appellate courts did not rely heavily on secondary sources when citing authority.49 Part of the reason for that can be found in the literature of the time, where caution was urged in using secondary sources. Many of the very same questions asked of those sources are asked about today’s Internet-age sources. Reliability, quality, and currency of the information are all questions that a good legal researcher must ask of a source found online, and the difficulty in answering those questions explains why courts are reluctant to cite to online sources.50 These same cautions are echoes of the pre-Internet age. When describing the California Supreme Court’s citation to secondary authority, Merryman explains that “it should be equally apparent that whether the . . . citation of secondary authority will be good or bad depends to a great extent on the quality of the work, the assumption on which it is based, the method it adopts, the purpose for which it has been prepared and the like.”51

¶38 Given the greater availability and amount of access to secondary sources, why, in the Internet age, haven’t courts turned more to secondary sources? For example, the online offerings of Westlaw and LEXIS have expanded greatly over time. In 1992, the

---

45 Moyer, Collins, & Haire, supra note 44, at 66.
46 Id. at 67.
47 Id.
49 Merryman, supra note 14, at 669–72.
51 Merryman, supra note 14, at 627.
Westlaw Database Directory had 140 pages. In 2000, the Directory had grown to 700 pages, and by 2007, it had grown to 1,150 pages.\textsuperscript{52} The LexisNexis service saw similar growth in its online offerings. In 1994, the LexisNexis Database Directory alphabetical listing ran 124 pages;\textsuperscript{53} in 1999, that had grown to 231 pages,\textsuperscript{54} and by 2007, it had grown to 401 pages.\textsuperscript{55} In 1994, LEXIS had approximately seventy legal periodicals in the database\textsuperscript{56} and grew to over 650 by 2004.\textsuperscript{57} Similarly, secondary sources across the board continued to increase on LEXIS. For example, in 1994, the Ohio library had only four secondary sources;\textsuperscript{58} by 2004, there were seventy-four secondary sources available in the Ohio library.\textsuperscript{59} This growth in resources was consistent across the LexisNexis database. For example, in 2004, LexisNexis added 1,300 new resources,\textsuperscript{60} and in 2007, 1,150 additional resources were added.\textsuperscript{61}

Since 2007, many new players have entered the online legal database marketplace. BloombergLaw has made more legal news, company news, and a broad array of secondary legal sources available at the touch of a key stroke. The same is true for other legal databases such as HeinOnline, Casemaker, and Fastcase, to name but a few of the ever-growing list of players.

Given the availability of this information, why are these sources not cited more often? The answer remains that jurisprudence continues to rely on recent appellate court decisions. Secondary sources remain a source best used for finding primary authority, a concept understood by most competent legal research professionals.

An additional reason exists that explains the low rate of citation to secondary sources. This reasoning appears to resonate across the ages. In the pre- and current Internet age, there exists valid (and some dubious) criticisms of secondary sources. These criticisms play a part in the appellate courts’ reluctance in relying too heavily on secondary sources. A review of various secondary sources will help illustrate the various rationales for this reluctance.

1. Legal Periodicals

Among the secondary sources, legal periodicals are relied upon more heavily than most any other secondary source. In Merryman’s study, the California Supreme Court cited legal periodicals eighty-seven times.\textsuperscript{62} In 2014, the California Supreme Court cited them forty-nine times and the United States Supreme Court cited them seventy-four times in its 2012 Term. Compared to other sources, the law review is at the top of secondary

\begin{footnotes}
\footnotetext[52]{E-mail from Diana Yund, Law School Product Specialist at Thomson Reuters, to author (Apr. 24, 2013).}
\footnotetext[53]{Lexis-Nexis Library Content Alphabetical List Quick Reference (1994). Special thanks to Patricia J. Carter, Manager of the LexisNexis Technical Library for gathering up older versions of the Lexis-Nexis Directories for use in this article.}
\footnotetext[54]{Lexis-Nexis Directory of Online Services (1999).}
\footnotetext[55]{Lexis-Nexis Directory of Online Services (2007).}
\footnotetext[56]{Lexis-Nexis Library Content, supra note 53.}
\footnotetext[57]{Lexis-Nexis Directory of Online Services (2004).}
\footnotetext[58]{Lexis-Nexis Library Content, supra note 53.}
\footnotetext[59]{Lexis-Nexis Directory, supra note 57.}
\footnotetext[60]{Id.}
\footnotetext[61]{Lexis-Nexis Directory, supra note 55.}
\footnotetext[62]{Merryman, supra note 14, at 653.}
\end{footnotes}
sources, but it pales in comparison to the citation of primary law. The rationale for the relatively high citation rate of legal periodicals, as compared with other secondary sources, is not hard to fathom. Many judges who sit on the high court, and the attorneys who appear before them, may very well have been on law review while in law school and thus have a healthy respect for the publication.\textsuperscript{63} They understand the value of the opinions expressed in legal periodicals and thus might rely on them to highlight a point of law that might not be well represented in current case law.

While legal periodicals receive a healthy number of citations, they have not escaped criticism, and their citation rates have steadily declined throughout the years.\textsuperscript{64} This is somewhat counter-intuitive given the fact that in the Internet age, legal periodicals are far more accessible than at any time in the past.\textsuperscript{65}

While law reviews are being cited in judicial opinions, their jurisprudential value has been criticized. This criticism is not new to the Internet age; it even predates Merryman’s article. In 1936, Professor Fred Rodell (of Yale Law), quipped in the Virginia Law Review that he no longer wished to contribute to “the qualitatively moribund while quantitatively mushroom-like literature of the law.”\textsuperscript{66} Rodell complained that the law reviews provided “a pennyworth of content . . . beneath a pound of so-called style.”\textsuperscript{67} This complaint is echoed by present-day commentators with respect to the usefulness of law reviews to those outside the academy.

Judge Richard A. Posner has criticized modern law reviews in much the same way that Rodell did in the pre-Internet age:

\begin{quote}
[T]oo many articles are too long, too dull, and too heavily annotated, and that many interdisciplinary articles are published that have no merit at all. Worse is the effect of these characteristics of law reviews in marginalizing the kind of legal scholarship that student editors can handle well—articles that criticize judicial decisions or, more constructively, discern new directions in law by careful analysis of decisions. Such articles are of great value to the profession, including its judicial branch, but they are becoming rare . . . .\textsuperscript{68}
\end{quote}

Judge Posner is not alone in his attack on academic law reviews.\textsuperscript{69} Chief Justice Roberts slighted law reviews while answering questions at a conference of federal judges...
of the Fourth Circuit. Chief Justice Roberts quipped that law reviews were of little value to the bench and bar. He answered a question by saying:

Pick up a copy of any law review that you see . . . and the first article is likely to be, you know, the influence of Immanuel Kant on evidentiary approaches in 18th-century Bulgaria, or something, which I’m sure was of great interest to the academic that wrote it, but isn’t of much help to the bar.70

¶47 These criticisms from the bench and bar might well have something to do with the declining citation to law reviews within appellate court decisions. In a study of United States Supreme Court decisions from 1971 to 1999 a sharp drop in the number of citations to law reviews was found.71 Citations to law reviews dropped consistently during this period:

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Citations to Law Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971–73</td>
<td>963</td>
</tr>
<tr>
<td>1981–83</td>
<td>767</td>
</tr>
<tr>
<td>1991–93</td>
<td>577</td>
</tr>
<tr>
<td>1996–98</td>
<td>271</td>
</tr>
</tbody>
</table>

In this article’s study of the 2012 United States Supreme Court, citation to law reviews declined even further with only seventy-four citations.

In keeping with the findings of this article and those of Merryman’s study, the Court tended to favor more recent law review articles over those from the past. For the 1996–98 period, 47.6 percent of all articles cited were published since 1990, and 21.77 percent were published since 1995.73

Along with the decline in the citation to law reviews overall, there was also a decline in the citation to the top ranked journals. This continued a similar decline observed in the previous studies. For example, between 1971 and 1999 citation to journals from the top twenty schools, with two exceptions, declined over the period.74 In the 2012 study of the Court only forty-six percent of the citations were to top twenty


72 Id. at 1011.

73 Id. at 1015.

74 Id. at 1029.
journals, while thirty-two percent were to journals from below the top 100.\textsuperscript{75} Compare this with the citation practices of the Court from 1996–98 when sixty-three percent of citations were to top twenty journals.\textsuperscript{76} This number is down from the 1991–93 period when eighty-six percent of citations were to top twenty journals.\textsuperscript{77}

One might conclude from the courts’ citations to law reviews that the Internet age has brought some diversity to appellate citation practices. The greater access to law reviews afforded to lawyers and judges has allowed for law journal articles from below the top twenty to find their way into the jurisprudence of the age. However, this development appears counter-balanced by the continued decline in the use of the law review by the courts overall.

Thus, appellate jurisprudence in the Internet age mirrors that of the pre-Internet age. Even the law review, the strongest of the secondary sources, is disfavored over recent appellate court opinions, and even when cited, the court favors citing to more recent scholarship than to scholarship of the past.\textsuperscript{78} Furthermore, the bench and the bar are consistent in their criticism of law reviews and their usefulness as a whole outside the legal academy. As Rodell, our pre-Internet commentator, observed, “The only consumers of law reviews outside the academic circle are the law offices, which never actually read them but stick them away on a shelf for future reference.”\textsuperscript{79} It should be noted that this criticism might overstate the reality of practice. The fact that lawyers are not citing to law reviews does not necessarily mean that they do not use them to guide their research and formulate their arguments.

2. Other Secondary Sources

While legal periodicals are the most heavily cited, law-related secondary sources, there are a number of other sources that legal researchers turn to when conducting their research. In the pre-Internet age, lawyers and judges turned to treatises, legal encyclopedias, the Restatements, and other sources to investigate the law and guide them to relevant primary authority. At times, these secondary sources would be cited by the courts but then, as now, they were largely left out of appellate jurisprudence. The rationale for this, like with legal periodicals, remains two-fold: (1) recent appellate court opinions reside as the primary source of appellate jurisprudence; and (2) lawyers and judges are skeptical about the overall quality and reliability of secondary sources.

The complaint commonly heard about the Internet is that we do not know who is responsible for placing the information online, and we cannot rely on its accuracy. This criticism is often targeted at online encyclopedias such as Wikipedia.\textsuperscript{80} This same

\textsuperscript{75} See Appendix C.
\textsuperscript{76} Sirico, supra note 71, at 1023.
\textsuperscript{77} Id.
\textsuperscript{78} Justice Scalia “commented that the shelf life of a law review article is about five years.” David L. Schwartz and Lee Petherbridge, The Use of Legal Scholarship by the Federal Courts of Appeals: An Empirical Study, 96 CORNELL L. REV. 1345, 1371 (2011).
\textsuperscript{79} Rodell, supra note 66, at 45.
\textsuperscript{80} For example, the 8th Circuit took an administrative law judge to task for relying in part on Wikipedia for its decision. In Badasa v. Mukasey, 540 F.3d 909 (8th Cir. 2008), the court was troubled by the use of Wikipedia. The court reviewed Wikipedia’s notoriously open system for adding and editing entries and was clearly uncomfortable with Wikipedia as a source of evidence in legal proceedings. The
criticism was targeted at the legal encyclopedias during the pre-Internet age. When describing the *Cyclopedia of Law and Procedure*, Merryman commented that this resource lists who the editors and contributors are but does not reveal their qualifications to actually be authoring this encyclopedia. Merryman wrote that “[n]owhere does there appear information which might make it possible to assess their ability to provide lawyers with a complete working knowledge of the law which will make it unnecessary for them to consult the reported cases.” Legal Encyclopedias have not escaped criticism in the modern era. One professor of legal research stated succinctly that “[o]nly a fool cites to legal encyclopedias as persuasive authority.”

Other secondary sources did not escape criticism in the earlier parts of the twentieth-century. One commentator criticized secondary sources such as the Restatements for being too focused on black-letter law and not on the process and thoughts that go into deciding tort cases.

In describing the Restatements, one author aptly said of them: “[t]hose of us who have had occasion to make use of the Restatement somewhat extensively realize that the complete product finds its greatest usefulness as a jumping-off point for the beginning of discussion.”

Clark’s arguments for relying on primary authority is as relevant in today’s Internet age as it was almost seventy years ago. In discussing the Restatements, Clark’s argument can easily be transferred to encompass all secondary sources, whether they be found online or in print:

The Restatements are easy and graceful citations upon settled points; but rarely, if ever, do they point the way out of a dispute or through a morass. American lawyers and judges like to be shown and convinced; and since the supporting grounds are carefully eliminated from the Restatements, they do not contain the material to persuade. One must resort to the

---

81 Published by American Law Book Co. in 1901. See Merryman, *supra* note 14, at 634.
82 Merryman, *supra* note 14, at 635.
83 ROBERT C. BERRING & ELIZABETH A. EDINGER, *FINDING THE LAW* 301 (11th ed. 1999). While Professors Berring and Edinger’s caution has much merit, there will be times when a legal encyclopedia may still be an excellent resource for making quick points of settled law. See, e.g., Clapper v. Amnesty Int’l USA, 133 S.Ct. 1138, 1163 (2013) (Breyer, J. dissenting) (citing 42 AM. JUR. 2D *Injunctions* § 2, 5 (2010) for the proposition that “an injunction is ordinarily preventive in character and restrains actions that have not yet been taken, but threaten injury.”); People v. Gonzales, 54 Cal. 4th 1234, 1259 (Cal. 2012) (citing two legal encyclopedias for settled legal principles).
detailed writings of scholars, and, of course, especially of the various Reporters where they are available, for the arguments and supporting data which will point to eventual decision.\textsuperscript{86}

¶56 Secondary authority is not cited heavily for a number of reasons, but there is little question that then, like now, secondary authority has its benefits. The Google generation is fond of starting most of its research with a Google search.\textsuperscript{87} This is the modern equivalent of using a secondary source to guide one’s research toward the best primary authority on point. While secondary sources might not be the bedrock of appellate jurisprudence, it has its uses. It is important for lawyers and judges to understand the advantages and disadvantages of the Internet in today’s legal research environment.

¶57 While the tools used by lawyers and judges to conduct research have changed over the last fifty years, the evidence shows that the authority relied on by judges remains closely harmonious. Recent case law from a jurisdiction’s highest appellate court remains the single most important piece of authority and forms the backbone of a jurisdiction’s jurisprudence. Whether located in a printed reporter or on a court’s web site, the judicial decision remains the “king of authority.”

III. THE INTERNET’S IMPACT ON THE COURTS

¶58 The preceding studies have highlighted the ways in which appellate jurisprudence has remained stable despite the vast changes the Internet has brought to the legal landscape. It would be disingenuous to suggest that the Internet has had no impact on the way law is practiced. It is therefore worthwhile, looking at some of the areas where lawyers and judges should exercise caution and develop strategies, to deal with the changes the Internet has brought to the practice of law.

¶59 The studies conducted for this article point quite conclusively to the fact that the primary sources of authority an attorney should be looking for to persuade a court are the recent decisions from one’s home appellate court. At the same time, study after study point to the fact that more and more attorneys are looking to the Internet in order to uncover this information. Thus, attorneys should be cognizant of the fact that when looking at the Internet for legal information, they should keep in mind two questions: (1) Is the information online authentic? and (2) Is the information reliable?

¶60 Authentication of online legal information has spawned interest within the legal information professionals’ community in the form of an effort to compile a list of authenticated primary law.\textsuperscript{88} These concerns have led the Uniform Law Commission to

\textsuperscript{86} Id. at 246–47.
\textsuperscript{87} It is likely this trend will continue since, as one commentator noted, it is hard to convince people to learn how to use a variety of research sources, as most people “are less receptive to training in general because they think that they can find everything by using Google-type searches, whether in Google or non-Google sources.” Heidi W. Heller, The Twenty-First Century Law Library: A Law Firm Librarian’s Thoughts, 101 L. LIBR. J. 517, 522 (2009).
propose the adoption of the Uniform Electronic Legal Materials Act (UELMA or “The Act”). UELMA is designed to establish:

[A]n outcomes-based, technology-neutral framework for providing online legal material with the same level of trustworthiness traditionally provided by publication in a law book. The Act requires that official electronic legal material be: (1) authenticated, by providing a method to determine that it is unaltered; (2) preserved, either in electronic or print form; and (3) accessible, for use by the public on a permanent basis.

As of 2015, it has been enacted by twelve States, with four other states considering it in their 2015 legislative sessions.

UELMA, if adoptions continue, will help erase the authentication issue (at least with primary sources) from the legal researcher’s mind:

When a document is authentic, it means that the version of the legal resource presented to the user is the same as that published by the official publisher. Authentication provides an electronic method to establish the integrity of the document, demonstrating that the information has not been tampered with or altered during the transfer between the official publisher and the end-user.

Once the majority (or all) jurisdictions adopt this type of model, legal researchers will not need to concern themselves with whether the online version of the case they are reading is authentic.

A second issue that arises when using information located on the Internet is the trustworthiness of online primary information. This debate predates the Internet, as lawyers have historically been cautioned to verify that the information they rely on is trustworthy. In the Internet age, this comes to the forefront as anyone can post information to the Internet. Thus, legal researchers are cautioned to look critically at anything found on the Internet.

---

94 Merryman, supra note 14, at 635.

274
¶64 While caution should be taken to insure that primary sources found on the Internet are authentic and that all resources found on the Internet are reliable, there are advantages to having all of this information available for lawyers and judges:

For at least the past 100 years courts have been relying increasingly on social, political, historical, and recently scientific data to bolster primary sources within their opinions. Over the past 10 years that trend has become significantly more pronounced due to the rapidly increasing accessibility of legal information on the Web.95

¶65 The Internet has made access to a vast array of information far more available than ever before. Now, legal researchers will have access to gray literature, that is “all the working papers, blogs, conference papers, news headlines, and speeches that previously were inaccessible.”96

¶66 The availability of information on the Internet is a benefit to both legal information producers and to the end users (judges, lawyers, and the public). “For information producers it is largely a matter of cost and perceived efficiencies of production. For consumers it is often a matter of convenience, perceived accessibility, and sometimes cost.”97

¶67 The Internet has placed a tremendous amount of materials in the hands of the appellate courts. This might mean that courts should be citing to a broader range of materials as the materials become more easily accessible. Such a trend would be a shift from the norm in the pre-Internet age. One study of state supreme court cases from 1870 to 1970 found that citation to in-state cases quadrupled over that period of time, while citations to other state opinions remained relatively stagnant during that same period.98 As the studies discussed above indicate, the trend is counter to this hypothesis; that is, appellate courts are tightening-up their jurisprudence and relying less and less on authority that comes from outside their own recent past. Thus, attorneys and judges should keep in mind that while a vast array of information is out there, they should continue to hone their research skills to retrieve and advocate based primarily on their home jurisdiction’s jurisprudence.

¶68 The Internet has certainly had a huge impact on the way law is practiced. It has touched many areas of the law and changed many of the ways law is, and will be, practiced. The Internet is pushing the law in many ways, but the evidence revealed by the studies in this article suggests we should not let the Internet divert attention away from training law students, lawyers, and judges in how to analyze and find relevant precedent to persuade courts and build the modern-day jurisprudence. In other words, “how to think like a lawyer.”

95 Badertscher & Melnick, supra note 93, at 17.
97 Badertscher & Melnick, supra note 93, at 17.
98 Lawrence M. Friedman et al., State Supreme Courts: A Century of Style and Citation, 33 STAN. L. REV. 773, 797 (1981). One reason posited was that “[t]he tendency to cite more in-state as compared to out-of-state cases might reflect the relative decline of common law cases on SSC dockets and the growth of statutes as a source of law. In interpreting the statutes of its own state’s legislature, an SSC has less reason to consult decisions in other states.” Id.
The Internet has pushed the practice of law in many other areas outside of legal research. A lawyer would do well to stay abreast of these changes to remain within the bounds of his or her ethical obligations within the profession and within his or her representation of clients. These areas include everything from how service of process is conducted, to the places and sources one can conduct discovery, to how we conduct voir dire and communicate with jurors, to the way judges and attorneys interact on social media. A competent lawyer will make sure to learn these new ways of practicing and use these new tools for the benefit of his or her clients. Ultimately, however, lawyers should not let the Internet deter them from using the “thinking like a lawyer” tools that law school has trained them to use. So what should legal educators do to help better prepare law students to research and formulate their legal arguments in the Internet Age?

IV. Best Methods for Legal Research in the Internet Age

The Internet age has not created a huge shift away from the traditional sources relied upon to create appellate jurisprudence. What the Internet age has done is shifted where legal researchers seek out these sources. Studies of the research practices of lawyers suggest that lawyers are relying less on computer-assisted legal research and more on free online sources. This suggests that law schools need to train law students (and lawyers and judges) how to use these free resources. If appellate courts continue to rely most heavily on recent court opinions from within their jurisdiction, then legal researcher training needs to be focused on how to uncover these sources and how to determine which of these authorities will be most helpful to their clients. It is relatively straightforward to introduce law students to the sources of law. This is more akin to legal bibliography. More challenging is the continued need to train law students in the skills surrounding legal analysis.

---

101 For a case dealing with jurors and the use of social media, see Sluss v. Ky., 381 S.W.3d 215 (Ky. 2012); see also Duncan Stark, Juror Investigation: Is In-Courtroom Internet Research Going Too Far?, 7 WASH J.L. TECH & ARTS 93 (2011); J. C. Lundberg, Googling Jurors to Conduct Voir Dire, 8 WASH J.L. TECH. & ARTS 123 (2012).
103 Westlaw, Lexis, Bloomberg, etc.
In essence, law schools should double down on training law students to think like lawyers. Legal education’s principal purposes should be (and always has been) to develop an intellectual understanding of law and legal institutions and the way they work, as well as the critical thinking skills that underlie law practice tasks generally. Training law students in these fundamental skills will help them in their research skills as they attempt to analyze facts, synthesize principles, interpret texts, and select the best precedents to support their clients’ arguments before the court.

The Internet and other new technologies continue to evolve and present lawyers with new ways to perform legal research. Many articles have been, and will continue to be, written about how new research tools are changing the way research is done, but this is fluid and will change constantly over time. Legal research tools will continue to evolve and change, but the essential skill of legal analysis remains constant.

As law students, attorneys, and judges turn more and more to search engines to locate legal information, the fundamental skill of choosing the most relevant precedent will continue to rest with the legal professional. No matter how “smart” search engines become, “[i]t is unlikely that these search engines will be able to determine the one case that is most on point.” Lawyers must still possess the necessary skills to determine which among the precedents found are the most persuasive and applicable to their client’s case. Put another way, “even when lawyers find precedents by means of a computer, they rely on their own judgment in deploying it.”

The evidence presented in this article supports the argument that the most important research skill for an attorney, especially one engaged in appellate work, is to master the skill of doctrinal legal research. The Council of Australian Law Deans captured the essence of this in a recent statement:

---

107 Id. at 99.
108 For example, in 2011, Ronald Wheeler published an article examining whether or not the new Westlaw platform (WestlawNext) would change the research landscape. Ronald Wheeler, Does WestlawNext Really Change Everything: The Implications of WestlawNext on Legal Research, 103 L. Libr. J. 359 (2011). Four years later Wheeler commented that advances in technology in that short time span had him questioning whether his assumptions about research in his earlier work were relevant in the current era of electronic legal research. Ronald Wheeler, Is This the Law Library or an Episode of the Jetsons?, 20 J. Legal Writing Inst. 49, 50 (2015).
109 There are those who do not take this view. In a recent study by law firm management consulting firm Altman Weil, 35% of respondents (law firm leaders) “said they could envision replacing first-year associates with law-focused computer intelligence within the next five to 10 years. That’s up from less than a quarter of respondents who gave the same answer in 2011.” Julie Triedman, Computer vs. Lawyer? Many Firm Leaders Expect Computers to Win, Am. Law. Daily (Oct. 24, 2015), http://www.americanlawyer.com/printerfriendly/id=1202740662236 [https://perma.cc/CBM7-9W72 ]. One law firm leader however took those who responded in the positive to task. “K&L Gates chair Peter Kalis was skeptical of the survey, noting that many law firm leaders polled by Altman Weil—like the 35% who thought first-year associates could be replaced—probably misunderstood the technological requirements of true artificial intelligence. ‘One hundred percent of law firm leaders’ Kalis quipped, ‘don’t know anything about AI.’” Id.
111 Id. at 1019.
Doctrinal research, at its best, involves rigorous analysis and creative synthesis, the making of connections between seemingly disparate doctrinal strands, and the challenge of extracting general principles from an inchoate mass of primary materials. The very notion of “legal reasoning” is a subtle and sophisticated jurisprudential concept, a unique blend of deduction and induction, that has engaged legal scholars for generations, and is a key to understanding the mystique of the legal system’s simultaneous achievement of constancy and change, especially in the growth and development of the common law.112

With the wide availability of information, it will be more important than ever for researchers to understand what they are looking at. They will need to have a firm grasp on analysis so they can determine if the information they are reading is relevant to the legal issues they are researching and are not just factual snippets in a universe of near limitless information. This concern was highlighted by United States Supreme Court Chief Justice Roberts. He has criticized today’s lawyers for relying too heavily on research that uncovers facts, not concepts. “Blind reliance on research that focuses merely on words, and not on concepts, . . . will uncover reams of marginally relevant precedent superficially on point, thereby distracting them from engaging in critical analysis or structuring of the underlying legal principles.”113

With researchers too used to the Google way of researching, legal educators should be refocusing and making sure that law students and lawyers are trained to understand the benefits and deficiencies with Internet searching. In training law students and lawyers in the Internet age, we should focus on teaching critical reading and thinking skills and the ability to organize and make sense of the information located. We should be focusing on the following questions:

[U]sers may find a wide range of information, but how well do they understand exactly what they have found? Do they know whether it is the current law? Do they understand what is missing? Do they recognize whether or how well their results answer their original query? Do they understand how their results raise new queries altogether? Do they see what criteria have been used to judge relevance in the retrieved list? Effective legal research still requires a high skill level. Critical thinking skills and a refined knowledge of legal materials and sources are immensely important in this new environment.114

This remains an uphill battle. Too often, law students enter law school believing they already know how to research. They “think they know how to do research, because


114 Hutchinson, supra note 96, at 591.
it seems so easy.’”115 This stands in stark contrast to what lawyers report back to law schools. This includes the elite schools. John Palfrey, former professor at Harvard Law School, reported that “one of the things I’ve heard from our alumni is that we’re sending out too many students into law firm practice who don’t have the best research skills.”116 Palfrey continued: “I don’t want us to send Harvard Law School students out in the world thinking that a keyword search is the only—or best—way to look up a statute or to figure out where a law journal is.”117

Academics are not the only ones who believe that research skills remain of high importance to new attorneys. In a recent study of 300 hiring partners, 86% of respondents believed that legal research skills are of high importance for young associates.118 Additionally, and in keeping with the findings of the studies conducted for this article, research competency in case law was found to be most critical above other forms of legal research.119 Thus, lawyers and judges must continue to emphasize to their alma maters that training law students in these skills will be of the most benefit to them and their clients when they begin to practice law.

CONCLUSION

A law student being trained to think within the structures created by Langdell and West but who locates, accesses, and manipulates law using electronic means, cannot help but be confused and disconcerted by the disconnect between the two modes of thinking.120

Although it might be true that accessing law in an electronic format requires different tools or techniques, the resources sought are essentially, as this paper’s study shows, the same material that lawyers and judges from different generations used to create their eras’ jurisprudence.

The challenge for the Internet-age lawyer, judge, and law student is to bridge this gap through a steady diet of learning how to “think like a lawyer.” Internet-age jurisprudence is built solidly on the recent appellate opinions of the court’s jurisdiction. As such, honing one’s analytical skills to be able to zero in on the most relevant cases, and using these cases to persuade a court on behalf of one’s client, will work for the Internet-age lawyer in the same fashion that worked in the pre-Internet age.

The Internet has not dramatically changed the predominant form of authority upon which courts base their opinions. The Internet has, perhaps, made judicial opinions much richer with more citations to authority from various jurisdictions and secondary sources. Future surveys of citations will tell the tale as to whether this will change more

---

116 Id. at 147.
117 Id. at 146.
119 Id. at 4.
120 Valentine, supra note 10, at 196.
dramatically than is currently in practice. One thing that appears not to change is, as science historian George Dyson explained, “Information is cheap, but meaning is expensive. Where is the meaning? Only human beings can tell you where it is.” As a result, it is imperative that law schools do not abandon their core function: training law students to “think like a lawyer.”

---

Appendix A

TOTAL SUPREME COURT SOURCES CITED 2012 TERM OPINIONS

<table>
<thead>
<tr>
<th>Cited Source</th>
<th>Majority</th>
<th>Concurrence</th>
<th>Dissent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCOTUS 1992-2012</td>
<td>470</td>
<td>54</td>
<td>148</td>
</tr>
<tr>
<td>SCOTUS 1991-prior</td>
<td>545</td>
<td>45</td>
<td>183</td>
</tr>
<tr>
<td>Fed. C.A. 1991-prior</td>
<td>51</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Fed. Dist. 1992-2012</td>
<td>15</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Fed. Dist. 1991-prior</td>
<td>12</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>State 1992-2012</td>
<td>96</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>State 1991-prior</td>
<td>52</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Fed. Admin</td>
<td>12</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Legal Journals</td>
<td>27</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Legal Sources</td>
<td>47</td>
<td>9</td>
<td>29</td>
</tr>
<tr>
<td>Non-Legal Sources</td>
<td>70</td>
<td>30</td>
<td>67</td>
</tr>
<tr>
<td>Internet</td>
<td>22</td>
<td>2</td>
<td>13</td>
</tr>
</tbody>
</table>
### Appendix B

#### TOTAL CALIFORNIA SUPREME COURT SOURCES CITED IN 2014 OPINIONS

<table>
<thead>
<tr>
<th>Cited Source</th>
<th>Majority</th>
<th>Concurrence</th>
<th>Dissent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cal. S.Ct. 2003-prior</td>
<td>1246</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Cal. Lower courts 2004-2014</td>
<td>157</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Cal. Lower courts 2003-prior</td>
<td>235</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>U.S.S.Ct. 2004-2014</td>
<td>127</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>U.S.S.Ct. 2003-prior</td>
<td>368</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>Fed. C.A. 2004-2014</td>
<td>41</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Fed. C.A. 2003-prior</td>
<td>53</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Fed. Dist. 2004-2014</td>
<td>20</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fed. Dist. 2003-prior</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>State 2004-2014</td>
<td>47</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>State 2003-prior</td>
<td>55</td>
<td>3</td>
<td>39</td>
</tr>
<tr>
<td>Legal Journals</td>
<td>33</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Legal Sources</td>
<td>16</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Non-Legal Sources</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Internet</td>
<td>15</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix C

2014 California Supreme Court Citations to Law Journals

<table>
<thead>
<tr>
<th></th>
<th>Top 20</th>
<th>21–50</th>
<th>51–100</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Supreme Court</td>
<td>14</td>
<td>9</td>
<td>4</td>
<td>22</td>
</tr>
</tbody>
</table>

2012 United States Supreme Court Citations to Law Journals

<table>
<thead>
<tr>
<th></th>
<th>Top 20</th>
<th>21–50</th>
<th>51–100</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Supreme Court</td>
<td>34</td>
<td>10</td>
<td>6</td>
<td>24</td>
</tr>
</tbody>
</table>

Each citation to a law journal was compared to the Washington and Lee University’s Law Journals and Submissions Ranking, 2007–2014, http://lawlib.wlu.edu/LJ/index.aspx. For the chart above, each article cited to was categorized as ranking within the top twenty ranked journals, between the twenty-first and fiftieth ranked journals, between the fifty-first and 100th ranked journals, or 101st and below.