

University of Dayton Law Review

Volume 38
Number 1 *Special Issue: Articles on Legal
Research and Writing*

Article 5

11-1-2012

Say Goodbye to the Books: Information Literacy as the New Legal Research Paradigm

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Available at: <https://ecommons.udayton.edu/udlr/vol38/iss1/5>

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Say Goodbye to the Books: Information Literacy as the New Legal Research Paradigm

Cover Page Footnote

The authors thank Jessica Clark and Susan DeJarnatt for their feedback on early drafts, Caitlin Gillock and Michael Resnick for their research assistance, and Liz Young for her help at all stages of the survey. This article was written with research support from Temple University Beasley School of Law.

SAY GOODBYE TO THE BOOKS: INFORMATION LITERACY AS THE NEW LEGAL RESEARCH PARADIGM

*Ellie Margolis and Kristen E. Murray**

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I. INTRODUCTION

The ever-changing nature of technology has had a profound effect on legal information and resources. Lawyers have more access to more information than ever before, and are finding new ways to find and use that information.¹ The days of conducting legal research in books are over.² Many law libraries are shrinking their expensive print collections in lieu of

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¹ Ellie Margolis, *Authority Without Borders: The World Wide Web and the Delegalization of Law*, 41 SETON HALL L. REV. 909, 911–12 (2011).

² Legal Tech. Res. Ctr., Am. Bar Ass'n, 2011 Legal Technology Survey Report: Online Research at V-iv, V-xiv (2011) (surveying over 800 lawyers and finding that 98% conduct some or all of their research online . . . showing increase in use of online legal research tools over last 10 years, etc.); see also, Sanford N. Greenberg, *Legal Research Training: Preparing Students for a Rapidly Changing Research Environment*, 13 LEGAL WRITING: J. LEGAL WRITING INST. 241, 246–48 (2007); Ellie Margolis, *Surfin' Safari—Why Competent Lawyers Should Research on the Web*, 10 YALE J.L. & TECH. 82, 108–09 (2007).

more cost-effective electronic technologies.³ Indeed, increasing numbers of legal sources are published only electronically and are no longer available in print.⁴ The advent of free electronic legal databases such as Google Scholar,⁵ as well as the new WestlawNext, Lexis Advance, and Bloomberg Law, have made conducting legal research online easier than ever.⁶ In combination with the decrease in print sources, the ease of electronic research makes it not only more efficient, but obligatory to conduct legal research online.⁷

Law school legal research programs have struggled to keep up with these changes. Traditionally, legal research was taught through bibliographic instruction—explaining what materials were contained in various case reporters, code books, other primary legal sources, etc. and then teaching how to access these materials through digests, annotations, secondary sources, and the like.⁸ As legal writing programs made the pedagogical shift to the process approach,⁹ so too did legal research instruction.¹⁰ As electronic research became more prevalent, legal research teachers struggled with how to balance teaching bibliographic research with teaching computer-assisted legal research.¹¹ More recently, the struggle is

³ Paul Beneke, *Brutal Choices in Curricular Design, Give Students Full CALR Access Immediately*, 8 NO. 3 PERSP: TEACHING LEGAL RES. & WRITING 114, 116 (2000) (explaining that print sources are becoming more scarce as more information becomes available through online databases); Thomas Keefe, *Teaching Legal Research from the Inside Out*, 97 LAW LIBR. J. 117, 121 (2005) (noting that libraries' reliance on electronic databases has increased to compensate for budget cuts and the high cost of printed publications); Amy E. Sloan, *Step Right Up: Using Consumer Decision Making Theory to Teach Research Process in the Electronic Age*, 60 S.C. L. REV. 123, 127 (2008) (providing anecdotal evidence that libraries' subscriptions to print materials have decreased).

⁴ Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157, 158 (2009).

⁵ David Hall, *Google, Westlaw, Lexisnexis and Open Access: How the Demand for Free Legal Research Will Change the Legal Profession*, 26 SYRACUSE SCI & TECH. L. REP. 53, 55 (2012) (describing Google Scholar as a free legal research tool which provides the public access to judicial opinions and journal articles).

⁶ See, e.g., Hall, *supra* note 5 at 124; Ronald E. Wheeler, *Does WestlawNext Really Change Everything? The Implications of WestlawNext on Legal Research*, 103 LAW LIBR. J. 359, 360–61 (2011); Jill Schachner Chanen, *Wired! Innovation. Competition. Lower-Cost Alternatives. The Battle for Your Legal Research Dollars Heats Up*, 96-FEB A.B.A. J. 34, 39 (2010).

⁷ See generally Margolis, *supra* note 2 (explaining why the ethical duty of competent representation requires lawyers to conduct legal research online).

⁸ Nancy P. Johnson, *Should You Use a Textbook to Teach Legal Research?*, 103 LAW LIBR. J. 415, 416 (2011).

⁹ Jo Anne Durako et. al., *From Product to Process: Evolution of A Legal Writing Program*, 58 U. PITT. L. REV. 719, 719–20 (1997); Ellie Margolis & Susan L. DeJarnatt, *Moving Beyond Product to Process: Building a Better LRW Program*, 46 SANTA CLARA L. REV. 93, 98 (2005).

¹⁰ See Christopher G. Wren & Jill Robinson Wren, *The Teaching of Legal Research*, 80 LAW LIBR. J. 7, 9 (1988) (explaining that the process-oriented approach to teaching legal research focuses on enhancing problem-solving skills and allows students to recognize how and when particular research tools should be used); see also Johnson, *supra* note 8, at 430–35 (discussing the process-oriented approach various modern texts use to teach legal research).

¹¹ Carrie W. Teitcher, *Rebooting the Approach to Teaching Research: Embracing the Computer Age*, 99 LAW LIBR. J. 555, 555–56 (2007); Sarah Valentine, *Legal Research as a Fundamental Skill: A Lifeboat for Students and Law Schools*, 39 U. BALT. L. REV. 173, 188–89 (2010).

over whether to introduce book research at all, and if so, how much.¹²

One constant in all of the pedagogy of legal research has been a focus on the sources—where legal information is published, what each source contains, how to find materials within each individual source, etc.¹³ The focus of legal research training has been on how to use various finding tools¹⁴ and other secondary sources to find material within the various sources of primary legal authority. For example, because an individual volume of a case reporter is not indexed, or organized topically, a legal researcher could not pull a volume off of the shelf and locate a case without already having a citation. Legal research instruction focused on how to know which cases were in the reporter series, which finding tools or secondary sources provided access to those cases, and how to use those tools to locate the cases.

But finding is no longer the chief challenge. Legal research is no longer just about how to access materials in all of the various print and electronic sources. Finding tools and secondary authority are no longer a necessary point of access into the primary authority. The changes wrought by technology have replaced access to multiple sources with a single one—the search box.¹⁵ Whether researching on any of the free or fee-paid, web-based services, the research is conducted by entering terms in a search box. And, unless specific steps are taken in advance, the results of the search are likely to include a larger number of materials—primary and secondary, relevant and irrelevant, useful and not useful. Legal research has shifted from a focus on how to find materials to careful evaluation of the wealth of information each search yields.

As legal research teachers come to grips with the significant changes in the legal research landscape, more and more are recognizing the need to teach not only specific electronic legal research techniques, but also a deeper understanding of electronic research so that skills can be

¹² Greenberg, *supra* note 2, at 242–43; Diana R. Donahoe, *Bridging the Digital Divide Between Law Professor and Law Student*, 5 VA. J.L. & TECH. 13, 80 (2000).

¹³ See Brooke J. Bowman, *Researching Across the Curriculum: The Road Must Continue Beyond the First Year*, 61 OKLA. L. REV. 503, 521–22 (2008); Paul Douglas Callister, *Beyond Training: Law Librarianship's Quest for the Pedagogy of Legal Research Education*, 95 LAW LIBR. J. 7, 23 (2003); Suzanne Ehrenberg & Kari Aamot, *Integrating Print and Online Research Training: A Guide for the Wary*, 15 No. 2 Persp: TEACHING LEGAL RES. & WRITING 119 (2007); Maureen F. Fitzgerald, *What's Wrong with Legal Research and Writing? Problems and Solutions*, 88 LAW LIBR. J. 247, 257 (1996); Cathaleen A. Roach, *Is the Sky Falling? Ruminations on Incoming Law Student Preparedness (and Implications for the Profession) in the Wake of Recent National and Other Reports*, 11 LEGAL WRITING: J. LEGAL WRITING INST. 295, 323 (2005).

¹⁴ A finding tool is a source such as the West's Federal Practice Digest, which provides a topical index to cases so that a researcher can obtain a citation to a case reporter where the case is published.

¹⁵ Thomas Keefe, *Legal Research and the Threat of the Available: Newly Minted Google-Age Lawyers Don't Know the Folkways of Print Research, This Law Prof Says*, 94 ILL. B.J. 618, 618–19 (2006); Lee F. Peoples, *The Death of the Digest and the Pitfalls of Electronic Research: What Is the Modern Legal Researcher to Do?*, 97 LAW LIBR. J. 661, 665 (2005); Teitcher, *supra* note 11, at 559–60.

transferred as the research technology continues to evolve and change.¹⁶ We are past the point of resisting the shift to electronic research and must accept as a given that law students and new legal researchers will primarily conduct legal research online.

In this research environment, “information literacy” provides a new paradigm for legal research pedagogy. The shift to “information literacy” is necessary to ensure that legal research instruction will continue to be effective in the electronic medium.¹⁷ “Information literacy is the ability to identify what information is needed, understand how the information is organized, identify the best sources of information for a given need, locate those sources, evaluate the sources critically, and share that information.”¹⁸ By focusing on information literacy, rather than specific research techniques, we can give our students the skills they will need to cope with the ever-changing research environment.

The field of information literacy has been developed and implemented at the college level for quite some time.¹⁹ Law schools are just beginning to figure out how to incorporate information literacy into the legal research classroom. Legal research textbooks have not, by and large, incorporated information literacy skills and have only recently included electronic legal research at all.²⁰ Legal research teachers must come to grips with what information literacy skills are important for legal research and develop a pedagogy designed to impart those skills to law students.

An important piece of the “information literacy” puzzle is understanding what skills and knowledge students bring to the table when learning legal research. The generation of students currently in law schools has grown up on the internet.²¹ They are called “Digital Natives,”²² or “the

¹⁶ See Ben Beljaars, *Implementing Legal Information Literacy: A Challenge for the Curriculum*, 37 INT’L J. LEGAL INFO. 321, 321–22 (2009); Richard A. Danner, *Contemporary and Future Directions in American Legal Research: Responding to the Threat of the Available*, 31 INT’L J. LEGAL INFO. 179, 186 (2003); Aliza B. Kaplan & Kathleen Darvil, *Think (and Practice) Like A Lawyer: Legal Research for the New Millennials*, 8 LEGAL COMM. & RHETORIC: JALWD 153, 177–78 (2011); Peoples, *supra* note 15, at 678; Valentine, *supra* note 11, at 220.

¹⁷ Keefe, *supra* note 3, at 117, 121–22.

¹⁸ *What is Information Literacy?*, UNIV. OF IDAHO: INFO. LITERACY PORTAL, http://www.webs.uidaho.edu/info_literacy/ (last visited Sept. 5, 2012).

¹⁹ *Introduction to Information Literacy*, AM. LIBRARY ASS’N, <http://www.ala.org/acrl/issues/infolit/overview/intro> (last visited Sept. 5, 2012).

²⁰ See Steven M. Barkan, *On Describing Legal Research (Book Review)*, 80 MICH. L. REV. 925, 938–39 (1982) (discussing a contemporary popular legal research text’s inadequate coverage of computer-assisted legal research); Ehrenberg & Aamot, *supra* note 13 (describing the depth in which electronic research is discussed in the three most popular legal research textbooks); Dennis Kim-Prieto, *The Road Not Yet Taken: How Law Student Information Literacy Standards Address Identified Issues in Legal Research Education and Training*, 103 LAW LIBR. J. 605, 607 (2011) (explaining that law librarians have been slow to incorporate information literacy concepts into their legal research curriculum).

²¹ Keefe, *supra* note 3, at 118.

²² Camille Broussard, *Teaching with Technology: Is the Pedagogical Fulcrum Shifting?*, 53 N.Y.L. SCH. L. REV. 903, 912 (2009).

Google Generation.”²³ They are conversant in searching the internet for everyday information.²⁴ Many assumptions have been made about the research skills of these students, ranging from thinking that, since they are so conversant in technology, they must naturally know how to find and evaluate sources²⁵ to assuming that, because they have not learned research in an organized and disciplined way, they lack any skills at all.²⁶ Without a firm grasp on what incoming law students understand about online research generally, it is hard to know how to develop an information literacy-based curriculum.

While the information literacy skills of college students have been studied for the last several years,²⁷ very little is known about the information literacy skills of incoming law students.²⁸ In order to test and possibly reframe the prevailing assumptions about students’ research skills, we conducted a survey to assess incoming law students’ information literacy and approaches to research. This article will put the survey in context and assess what our findings mean for the development of a legal research pedagogy that can bridge the gap between traditional legal research instruction and new technology.

Part II will review the history of legal research pedagogy and show its limitations in the current research environment. Part III will introduce the field of information literacy and place it in a law school context. Part IV will explain the need for understanding the information literacy skills of incoming law students and describe the survey and its results. Part V will analyze some of the findings and discuss ways to teach legal research in a way that reflects students’ abilities and results in high-quality legal research.

II. LEGAL RESEARCH IN THE DIGITAL AGE: FROM INDEX TO SEARCH BOX

The changes in legal research have been driven by both changes in the nature of legal publishing, and changes in the methods of accessing both legal and nonlegal information. For most of the last two centuries, the world of legal publishing was remarkably stable and, as a consequence, so was the

²³ Ian Gallacher, *Forty-Two: The Hitchhiker's Guide to Teaching Legal Research to the Google Generation*, 39 AKRON L. REV. 151, 163 (2006).

²⁴ Mary Whisner, *Everyday Research*, 103 LAW LIBR. J. 491, 491–92 (2011).

²⁵ See Deborah J. Grimes & Carl H. Boening, *Worries with the Web: A Look at Student Use of Web Resources*, 62 C. & RES. LIBR. 11, 11 (2001) (finding that undergraduate faculty members falsely assume that students are able to evaluate resources); Teitcher, *supra* note 11, at 565 (stating that spending significant class time teaching students how to do electronic research is unnecessary because students are able to figure it out on their own and are experts at finding information).

²⁶ Bowman, *supra* note 13, at 527.

²⁷ *Project Information Literacy*, PROJECT INFORMATION LITERACY, <http://projectinfolit.org/> (last updated Aug. 1, 2012) (“Project Information Literacy is a national study about early adults and their information-seeking behaviors, [and] competencies . . .”).

²⁸ There appears to be only one systematic study of this nature. Ian Gallacher, “*Who Are Those Guys? The Results of a Survey Studying the Information Literacy of Incoming Law Students*,” 44 CAL. W. L. REV. 151, 155–56 (2007).

nature of legal research.²⁹ The “digitization” of legal information has changed that landscape and broken wide open that stable landscape of legal research.³⁰ As the nature of legal research has changed, those who teach legal research have struggled to adapt their pedagogy to teach novice researchers the most effective and efficient methods of legal research.³¹ This Part will trace the changes in legal publishing and the corresponding changes in the nature of legal research.

Throughout the nineteenth and twentieth centuries, legal information was published in a stable, self-contained system, controlled largely by the West Publishing Company.³² Statutes were published in code books. Cases were published in case reporters. Secondary sources were traditionally limited to legal encyclopedias, treatises, and scholarly journals. All of these sources were accessed by using some kind of index, and the process of legal research was relatively straightforward.³³

To search in a secondary source, a legal researcher would look for key terms in either the index or table of contents, find a relevant article, and read it to gain general knowledge of the subject as well as citation to primary legal authority. To find a statute, a researcher would look in a key word index to find a statutory code citation, and look up that citation in the relevant code volume. To find a case, a researcher would similarly look up key terms in the index of a digest, find a relevant key number, find the entry for that key number, and obtain citations to case reporters where the cases were located.

In addition to the method of access being similar across sources, the primary legal authority in books is organized according to jurisdiction, and each book series contains only one type of authority.³⁴ Looking for cases in the West’s California Digest yields citations only to California cases. Looking up a key word in the index to the U.S. Code leads only to citations to a federal statute. In order to gain access to the source material in books, the legal researcher had to identify and search within a particular jurisdiction, and the organization of the books sent clear signals as to which jurisdiction the researcher was in. There was little possibility that a

²⁹ Robert C. Berring, *Legal Information and the Search for Cognitive Authority*, 88 CAL. L. REV. 1673, 1675 (2000).

³⁰ Robert C. Berring, *Legal Research and the World of Thinkable Thoughts*, 2 J. APP. PRAC. & PROCESS 305, 305–06 (2000).

³¹ See Callister, *supra* note 13, at 8; Ehrenberg & Aamot, *supra* note 13; Teitcher, *supra* note 11, at 562–64; Valentine, *supra* note 11, at 173–79.

³² Berring, *supra* note 29, at 1679–80.

³³ See Margolis, *supra* note 1, at 929–30 (describing the process of researching using indexes). Legal research texts confirm this approach to conducting legal research. See, e.g., STEVEN M. BARKAN ET AL., FUNDAMENTALS OF LEGAL RESEARCH, 78–80, 82–83, 232–33 (9th ed. 2009); LAUREL CURRIE OATES ET AL., JUST RESEARCH, 46–48, 156–57, (2d ed. 2009); AMY E. SLOAN, BASIC LEGAL RESEARCH: TOOLS AND STRATEGIES, 51, 74–76, 206–09 (5th ed. 2012).

³⁴ Margolis, *supra* note 1, at 925. Even a source like a regional reporter contains only cases, even though those cases may be from multiple jurisdictions.

researcher looking for a Pennsylvania case would accidentally find and retrieve a case from North Dakota. The print-based system of legal authority provided legal researchers with an understanding of the law as a separate, and clearly organized, domain.³⁵

Not surprisingly, in this research environment, legal research courses focused on teaching students how to use the books. The early legal research classes³⁶ took a bibliographic approach, teaching students what each book contained, who published it, how to access the materials in that source, etc.³⁷ During the 1980s, the “process oriented” approach was developed and became popular at many law schools.³⁸ Under this approach, legal research was seen as a recursive process, in which the student would learn research through problem-solving, rather than learning about books in the abstract.³⁹ Under both the bibliographic and process approaches, however, the primary focus was on teaching students how to find and use the print sources through traditional research methods.

During the latter part of the twentieth century, legal information began to migrate to electronic formats, and Computer Assisted Legal Research (“CALR”) was born.⁴⁰ Initially, electronic research mirrored book research very closely.⁴¹ The materials in online databases were organized in much the same way as in the books, and the early forms of electronic legal research involved transplanting print research techniques into an electronic environment.⁴² As with the books, a researcher would need to select a database containing a single type of authority, and use a carefully constructed search within that database to yield results.

During this period, legal research courses continued to focus on teaching print-based research.⁴³ Many schools did not allow law students to

³⁵ *Id.* at 911; F. Allan Hanson, *From Key Numbers to Keywords: How Automation Has Transformed the Law*, 94 LAW LIBR. J. 563, 571 (2002).

³⁶ Legal Research classes have been a part of most law school curricula since the early twentieth century. See Blair Kauffman, *Information Literacy in Law: Starting Points for Improving Legal Research Competencies*, 38 INT’L J. LEGAL INFO. 339, 340 n.4 (2010) (noting that by the late 1930s, research courses were common in most law schools).

³⁷ See Callister, *supra* note 13, at 11–14 (tracing the history of legal research pedagogy and the debate between the bibliographic and process approaches).

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ See William R. Mills, *The Decline and Fall of the Dominant Paradigm: Trustworthiness of Case Reports in the Digital Age*, 53 N.Y.L. SCH. L. REV. 917, 922–23 (2009) (explaining that computer-assisted legal research (“CALR”) initiated in 1973 and allowed researchers to perform full-text searches instead of using the Key Number digest system).

⁴¹ Berring, *supra* note 30, at 312.

⁴² Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Paradigm Shift?*, 93 LAW LIBR. J. 285, 286–89 (2001); Berring, *supra* note 30, at 312–14; Gallacher, *supra* note 23, at 163–67; Katrina Fischer Kuh, *Electronically Manufactured Law*, 22 HARV. J.L. & TECH. 223, 226 (2008); Richard J. Ross, *Communications Revolutions and Legal Culture: An Elusive Relationship*, 27 LAW & SOC. INQUIRY 637, 640–46 (2002).

⁴³ Donahoe, *supra* note 12, at 77; see generally Wren & Wren, *supra* note 10 (advocating for a shift from traditional legal research instruction which focuses on describing the contents of law books).

access LexisNexis and Westlaw until after they had already mastered print-based research.⁴⁴ Law librarians and legal research professors believed that it was necessary to understand the organization of books before a student could research electronically, so legal research pedagogy changed relatively little.⁴⁵

The last ten to fifteen years have seen a dramatic change in the availability and organization of legal information. Increasingly more information is being published directly online, and older information has been digitized, so it is possible to conduct legal research entirely online.⁴⁶ Much of this information is available for free on publicly accessible sites such as Google Scholar.⁴⁷ The search technology has changed as well. No longer does the organization of digital information mirror the print world, and no longer do legal researchers need to replicate the print-based methods of accessing information online. Instead of selecting databases and using subject indexes to find legal information, the point of entry in electronic research is the search engine.⁴⁸

The search engine provides direct access into digital databases containing a huge variety of legal and nonlegal information.⁴⁹ While there are differences between individual search engines, the basic operation is the same. The researcher enters terms into a search box, and the search engine then uses an algorithm to retrieve results matching those terms.⁵⁰ With the advent of new platforms like Google Scholar, WestlawNext, Lexis Advance, and most recently Bloomberg Law, what one writer called the “‘Googlization’ of legal research”⁵¹ has clearly taken hold. The search engine on all of these platforms is designed to retrieve information from multiple databases, including primary and secondary legal authority, as well as a selection of nonlegal sources. No longer does a researcher need to select a database/jurisdiction before conducting a search. No longer does a researcher need to carefully construct Boolean searches or fear yielding no

⁴⁴ Beneke, *supra* note 3, at 114; Donahoe, *supra* note 12, at 77; *see also* Teitcher, *supra* note 11, at 559–62 (stating that Brooklyn Law School attempted to encourage print-based research by restricting first-year students' access to Westlaw and LexisNexis resources).

⁴⁵ Ehrenberg & Aamot, *supra* note 13; Teitcher, *supra* note 11, at 558; Donald J. Dunn, *Why Legal Research Skills Declined, or When Two Rights Make A Wrong*, 85 LAW LIBR. J. 49, 66 (1993); Patrick Meyer, *Law Firm Legal Research Requirements for New Attorneys*, 101 LAW LIBR. J. 297, 307–08 (2009); Joan Shear, *Elevating Form above Substance: A Reply to Jim Milles and His Assumptions about Approaches to Teaching Legal Research*, 9 AALL SPECTRUM 10, 11 (June 2005), available at http://www.aallnet.org/main-menu/Publications/spectrum/Archives/Vol-9/pub_sp0506/pub-sp0506-elevating.pdf; Fritz Snyder, *High-tech Law Students: When to Train Them on CALR*, 8 No. 1 PERSP: TEACHING LEGAL RES. & WRITING 21, 21 (1999).

⁴⁶ Lihosit, *supra* note 4, at 158.

⁴⁷ *See* GOOGLE SCHOLAR, <http://scholar.google.com/> (last visited Sept. 2, 2012).

⁴⁸ Margolis, *supra* note 1, at 931; *see also* Mills, *supra* note 40, at 932.

⁴⁹ Margolis, *supra* note 1, at 931; *see also* Mills, *supra* note 40, at 932.

⁵⁰ Margolis, *supra* note 1, at 931; *see also* Mills, *supra* note 40, at 920.

⁵¹ Christine L. Sellers & Phillip Gragg, *WestlawNext and Lexis Advance*, 104 LAW LIBR. J. 341, 344 (2012).

results. Entering key words into a search box will generally yield results. The print-publishing world no longer controls access to legal information.⁵²

Legal research has become at once easier and more challenging than it ever was in the past.⁵³ At the same time that the print system has lost its hold on the organization of legal material, legal researchers are increasingly going directly to the web to conduct their research.⁵⁴ Most legal research courses have not yet caught up to this reality, however, and devote substantial time to teaching legal research in print materials.⁵⁵

Legal writing professionals and librarians teaching legal research courses have been reluctant to abandon traditional research instruction for fear that the quality of research will suffer.⁵⁶ Most legal research professors have taught legal research in much the same way they learned it, and for most, that means a sound grounding in print research before learning electronic search techniques.⁵⁷ Increasingly, though, this approach creates a disconnect between the legal research course and both practicing lawyers and law students.

Outside of the law school setting, legal research takes place primarily online. The 2011 ABA Legal Technology Survey⁵⁸ shows that 98% of the respondents conduct legal research online, a number that has grown each year of the survey.⁵⁹ Most of this research takes place from the attorney's personal office⁶⁰ and very little takes place in a law library of any kind.⁶¹ While print materials have not been abandoned altogether,⁶² it is clear that they are used less frequently, and when they are used, it is primarily for secondary source and background research.⁶³

At least one small study suggests that practicing lawyers do not

⁵² Bast & Pyle, *supra* note 42, at 297–98.

⁵³ Ehrenberg & Aamot, *supra* note 13.

⁵⁴ ABA survey, *supra* note 2, at V-x (Question 17) (showing that of those surveyed, only 13% begin their research in print sources).

⁵⁵ Popular legal research texts continue to devote significant space to teaching print sources such as indexes, digests, legal encyclopedias, treatises, and annotated codes. See Johnson, *supra*, note 8, at 428–35 (providing reviews of popular legal research texts); see generally, e.g., BARKAN, *supra* note 33; OATES, *supra* note 33; SLOAN, *supra* note 33.

⁵⁶ Lihosit, *supra* note 4, at 159–62; Teitcher, *supra* note 11, at 555–56; Valentine, *supra* note 11, at 188–89.

⁵⁷ Gallacher, *supra* note 23, at 159–63.

⁵⁸ A comprehensive survey of almost 1,000 lawyers representing a wide cross-section of ages, practice settings and practice areas. ABA survey, *supra* note 2 at V-vi-viii.

⁵⁹ *Id.* at V-xiv, V-38 (Question 20).

⁶⁰ *Id.* at V-18, (Question 16a) (showing that 79.2% of respondents regularly conduct research in their personal office).

⁶¹ *Id.* at V-19, (Questions 16b and 16c) (showing that only 10.4% of respondents regularly conduct research in a firm library and only 5.4% regularly conduct research in an offsite library).

⁶² *Id.* at V-22, (Question 18a) (indicating that only 2.3% of respondents reported never using print materials).

⁶³ *Id.* at V-35 (Question 19) (demonstrating that top four topics researched using print format were treatises, forms, legal periodicals and other secondary materials, while the fifth most common topic was state legislative materials).

research in the way they were taught in law school.⁶⁴ This study concludes that, despite the concerns about modern research techniques, “today’s attorneys are no more in danger of missing the ‘controlling legal principles or policy issues’ than they were before online databases became a standard tool for legal research.”⁶⁵

In addition to the changes in law practice, students entering law school are different. The generation of students entering law school in recent years has grown up using computers and conducting online research for everything from school projects to finding out the birthday of a favorite celebrity.⁶⁶ Today’s students expect that anything they need can be found online and are resistant to the notion that print-based research might be more effective in some situations.⁶⁷ No matter how much emphasis law school research courses put on researching in print materials, it is increasingly clear that students and young lawyers will not use them. In addition, even if we restrict use of Westlaw and LexisNexis, students will still use Google and other free web resources, perhaps without the benefit of careful instruction. It is clear that a print-based, source-based approach to teaching is not the most effective way to reach today’s students.⁶⁸

It is time for the legal research world to develop a new paradigm for teaching research. The advent of online research, and particularly platforms such as Google Scholar, WestlawNext, and Lexis Advance, has changed the game. Legal research has become less about how to access materials and more about how to conduct effective electronic searches and evaluate search results. The volume of available information, combined with search technologies that yield voluminous results, makes it more important than ever to not only search carefully, but to be able to comb through results efficiently and effectively. The field of Information Literacy, which focuses on just such skills, can provide a new and more effective lens through which to teach legal research in the new millennia.

III. INFORMATION LITERACY: THE NEW PARADIGM

Broadly defined, information literacy is the ability to “recognize when information is needed and have the ability to locate, evaluate, and use

⁶⁴ Lihosit, *supra* note 4, at 174 (reporting on a survey of the research techniques of fifteen attorneys practicing law in San Diego, California).

⁶⁵ *Id.*

⁶⁶ See, e.g., Peoples, *supra* note 15, at 674–75; Keefe, *supra* note 3, at 118; Teitcher, *supra* note 11, at 556; Gallacher, *supra* note 23, at 163–64; Kaplan & Darvil, *supra* note 16, at 175; Broussard, *supra* note 22, at 904.

⁶⁷ Peoples, *supra* note 15, at 676 (noting that in a survey of law students in 2004, resistance to research in the print digest was high, even when it was shown to be an effective research tool, and that their support for electronic research was “unflappable”).

⁶⁸ Keefe, *supra* note 3, at 126 (stating that it is important to teach legal research in a way that makes sense to students and builds on their existing knowledge base).

effectively the needed information.”⁶⁹ The concept of information literacy was developed in the 1980s as educators began to recognize that information was becoming more widely available and accessible electronically, rather than through print libraries.⁷⁰ Information literacy is a broad term that encompasses research skills and bibliographic instruction.⁷¹ It has not yet taken hold widely in the legal research and law librarian community, though there have been increasing calls for using information literacy principles in teaching legal research.⁷² Information literacy provides both a framework for thinking about research, as well as a way to identify competencies and assess student learning to make sure that students are developing the skills they will need for law practice.

A. Information Literacy Generally

Information literacy has really come to the fore in the last decade, since the Association of College and Research Libraries (“ACRL”) formally adopted a definition and set of competency standards for information literacy.⁷³ The ACRL defines information literacy as “the set of skills needed to find, retrieve, analyze, and use information.”⁷⁴ According to the ACRL, information literacy is increasingly important in today’s world of “rapid technological change and proliferating information resources.”⁷⁵ An individual who is information literate has the skills to adapt to changes in the research environment and retain the ability of lifelong learning.⁷⁶ The ACRL assessment rubric is designed to apply to higher education at all levels and to serve as both an assessment method and a tool for teachers to shape their pedagogy.⁷⁷

The ACRL developed five primary competencies for assessing information literacy⁷⁸. They are as follows:

1. **Know:** “The information literate student determines the nature and extent of information needed.”

⁶⁹ AMERICAN LIBR. ASS’N, PRESIDENTIAL COMM. ON INFORMATION LITERACY: FINAL REP. (Jan. 10, 1989), <http://www.ala.org/acrl/publications/whitepapers/presidential>.

⁷⁰ Danner, *supra* note 16, at 193.

⁷¹ Kim-Prieto, *supra* note 20, at 608.

⁷² Beljaars, *supra* note 16, at 321–22; Keefe, *supra* note 3, at 121–22; Peoples, *supra* note 15, at 678–79; Valentine, *supra* note 11, at 221–22.

⁷³ ASS’N OF COLL. & RESEARCH LIBRARIES, INFORMATION LITERACY COMPETENCY STANDARDS FOR HIGHER EDUCATION, (Jan. 2000) [hereinafter LITERACY COMPETENCY STANDARDS], *available at* <http://www.ala.org/acrl/standards/informationliteracycompetency>.

⁷⁴ *Introduction to Information Literacy*, *supra* note 19.

⁷⁵ LITERACY COMPETENCY STANDARDS, *supra* note 73.

⁷⁶ *Id.*

⁷⁷ *Information Literacy for Faculty and Administrators*, AM. LIBRARY ASS’N, <http://www.ala.org/acrl/issues/infolit/overview/faculty/faculty> (last visited Sept. 16, 2012); *see also* Kim-Prieto, *supra* note 20, at 608.

⁷⁸ *The Standards: Step-by-Step*, AM. LIBRARY ASS’N, <http://www.ala.org/acrl/issues/infolit/standards/steps> (last visited Sept. 4, 2012).

2. **Access:** “The information literate student accesses needed information effectively and efficiently.”
3. **Evaluate:** “The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.”
4. **Use:** “The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.”
5. **Ethical/Legal:** “The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.”⁷⁹

Within each of these five standards are twenty-two performance indicators.⁸⁰ The performance indicators provide a concrete description of the skills needed to achieve competence. The performance indicators identify specifically what the student should learn.⁸¹ For example, one of the performance indicators for Standard 1 is that “[t]he information literate student identifies a variety of types and formats of potential sources for information.”⁸² Each performance indicator contains a set of learning outcomes, which provide specific means of assessing whether the student has learned.⁸³

While the competency standards are intended to apply to all forms of higher education, the ACRL recognizes that different disciplines will prioritize the mastery of the different competencies at different points in the learning process.⁸⁴ Indeed, the standards have been taken and modified for a number of different disciplines and subjects.⁸⁵ While the ACRL has not adopted information literacy standards for legal research, they have obvious application in that context. However, because legal research is specialized, it is important to give careful consideration to how to implement information literacy principles in a law school context.

⁷⁹ *Id.*

⁸⁰ LITERACY COMPETENCY STANDARDS, *supra* note 73.

⁸¹ *The Standards: Step-by-Step*, *supra* note 78.

⁸² LITERACY COMPETENCY STANDARDS, *supra* note 73.

⁸³ LITERACY COMPETENCY STANDARDS, *supra* note 73. For example, a learning outcome of the second performance indicator for Standard One is that the student “[i]dentifies the purpose and audience of potential resources” in a variety of formats. *Id.*

⁸⁴ *The Standards: Step-by-Step*, *supra* note 78.

⁸⁵ ASS’N OF COLL. & RESEARCH LIBRARIES, GUIDELINES & STANDARDS, <http://www.ala.org/acrl/standards/informationliteracycompetency>, (last visited Sept. 16, 2012) (showing information literacy standards for Journalism, Anthropology and Sociology, and Science and Technology among others); *see also* Kim-Prieto, *supra* note 20, at 606–07.

B. Information Literacy in a Legal Research Context

While there have been increasing calls for considering information literacy in a legal research context,⁸⁶ no legal research textbooks explicitly use an information literacy framework, and legal research courses have been slow to make use of information literacy principles. Law librarians have devoted a little more attention to information literacy, and in 2009-2010, the Joint Special Interest Section Committee on the Articulation of Law Student Information Literacy Standards drafted the Law Student Information Literacy Standards.⁸⁷ These Standards were never adopted, but were sent to the Law Student Research Competency Standards Task Force of the American Association of Law Librarians for further development.⁸⁸ This group developed the Law Student Research Competency and Information Literacy Principles,⁸⁹ which were approved by the Executive Board of the American Association of Law Librarians in March, 2011.⁹⁰

The Principles are modeled on the ACRL Standards, but they are more explicitly tied to the process of legal problem solving and analysis.⁹¹ They are intended as a starting point for further development of specific standards.⁹² One of their purposes is to serve as a basis for law school curriculum development and design,⁹³ and they provided a good starting point for a discussion of how to use information literacy as a framework for teaching legal research.

Like the ACRL Standards, the law student Principles identify five primary competencies, each further defined with particular skills.⁹⁴ The five Principles are that students: 1) possess fundamental research skills, 2) implement effective, efficient research strategies, 3) critically evaluate legal and nonlegal information, 4) apply information effectively to resolve a specific issue or need, and 5) distinguish between ethical and unethical uses of information and understand the legal issues arising from discovery and use of information.⁹⁵ Each of these top-level Principles is then broken down

⁸⁶ Beljaars, *supra* note 16, at 321-22; Keefe, *supra* note 3, at 121-22; Peoples, *supra* note 15, at 678-79; Valentine, *supra* note 11, at 221-22.

⁸⁷ Kim-Prieto, *supra* note 20, at 609 n.20 (CITING LAW STUDENT INFO. LITERACY STANDARDS (Proposed Official Draft 2010)).

⁸⁸ AM. ASS'N OF LAW LIBRARIES, AALL LAW STUDENT RESEARCH COMPETENCY STANDARDS TASK FORCE 2011 ANNUAL REPORT [hereinafter COMPETENCY STANDARDS REPORT], available at <http://www.aallnet.org/main-menu/Leadership-Governance/committee/cmte-annual-reports/2010-2011/c-lawresearchcomp.pdf> (last visited Sept. 16, 2012).

⁸⁹ AM. ASS'N OF LAW LIBRARIES, AALL LAW STUDENT RESEARCH COMPETENCIES AND INFORMATION LITERACY PRINCIPLES [hereinafter LITERACY STANDARDS], available at <http://www.aallnet.org/main-menu/Advocacy/recommendedguidelines/Student-Research-Principles.pdf> (last visited June 14, 2012).

⁹⁰ Kim-Prieto, *supra* note, 20 at 610.

⁹¹ *Id.*

⁹² COMPETENCY STANDARDS REPORT, *supra* note 88.

⁹³ LITERACY PRINCIPLES, *supra* note 89.

⁹⁴ *Id.*

⁹⁵ *Id.*

into particular skills. The first three of the Principles are most closely related to the material generally covered in legal research courses. The final two, which involve the application of information and its ethical and legal uses, are more typically covered in instruction related to the writing, rather than research, process.

The first Principle is that “[a] successful researcher should possess fundamental research skills.”⁹⁶ This requires that the students understand the legal system, the interrelationship between branches of government, and the difference between official and unofficial sources. In addition, the researcher should be able to distinguish between primary and secondary sources of law and understand how to use each. Finally, the “student[] should have an awareness of the cost of research.”⁹⁷

The second Principle focuses on “effective, efficient research strategies.”⁹⁸ As further defined, this Principle requires that the student select appropriate research tools based on the nature of the law governing the issue, and develop a detailed research plan that identifies cost-efficient sources.⁹⁹ In addition, students should confirm the validity of their search results by use of the available tools as well as their own prior work-product and expertise. Finally, students should keep a careful record of their research for future reference.¹⁰⁰

The third Principle requires that the researcher “critically evaluate legal and nonlegal information and information sources.”¹⁰¹ This Principle focuses on knowing the different purposes of different types of information sources, as well as understanding their various strengths and weaknesses. Related to this, students should also be able to transfer skills used for one source in order to master new information resources. The third Principle also focuses on analytical skills such as the ability to distinguish between binding and persuasive authority, recognizing contrary authority, and analogizing and distinguishing facts and legal concepts.¹⁰²

While the Law Student Research Competency and Information Literacy Principles do not include anything radically different from the way that most legal skills professors think about legal research, they provide the groundwork for rethinking the way the traditional legal research course (or legal research and writing course) is taught. Like the ACRL Standards, these Principles can provide both a framework for legal research pedagogy, and a tool for assessment. Reframing the discussion in terms of information

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

literacy skills and competencies provides a way to get away from the source-based research instruction that is becoming increasingly outdated.

C. Law Student Information Literacy: The Next Frontier

An important part of incorporating information literacy into the legal research curriculum involves taking into account the information literacy skills incoming law students are (or are not) bringing to the table. The literature is full of commentary on the skills and abilities of the millennial generation.¹⁰³ Much of that commentary is negative, articulating the worry that, while today's students have grown up using computers, they have not learned with sufficient rigor the skills necessary for complex and in-depth research projects.¹⁰⁴

These concerns are not entirely unfounded. A number of studies have shown that the information literacy skills of college students and others are declining.¹⁰⁵ Common concerns about today's college researchers include inefficiency, problems distinguishing among sources, preference for easy access to sources, "satisficing" (or doing just enough research to get by), and overconfidence in their research and writing abilities.¹⁰⁶ Another frequent observation is that though they are digital natives, today's college students do not always demonstrate high levels of proficiency with electronic research tools.¹⁰⁷

While the information literacy skills of college students have been studied extensively, there have been relatively few studies of those college graduates matriculating to law school.¹⁰⁸ In the only published study, in 2006, incoming law students at seven different law schools were asked

¹⁰³ Bowman, *supra* note 13, at 524–29; Callister, *supra* note 13, at 9; Greenberg, *supra* note 2, at 254–55; Meyer, *supra* note 45, at 305; Roach, *supra* note 13, at 308–09.

¹⁰⁴ Greenberg, *supra* note 2, at 254–55; Meyer, *supra* note 45, at 305; Roach, *supra* note 13, at 308–09; THOMSON WEST, WHITE PAPER: RESEARCH SKILLS FOR LAWYERS AND LAW STUDENTS 5 (2007), available at <http://www.perfspot.com/docs/doc.asp?id=109481>; Valentine, *supra* note 11, at 189–90.

¹⁰⁵ For example, Project Information Literacy is a comprehensive, ongoing national research project collecting data from students enrolled in public, private, and community colleges throughout the United States. PROJECT INFORMATION LITERACY, *supra* note 27; see also Gallacher, *supra* note 28, at 152, nn.2–4.

¹⁰⁶ See generally RICHARD ARUM & JOSIPA ROKSA, ACADEMICALLY ADRIFT: LIMITED LEARNING ON COLLEGE CAMPUSES (2011); ALISON J. HEAD & MICHAEL B. EISENBERG, BALANCING ACT: HOW COLLEGE STUDENTS MANAGE TECHNOLOGY WHILE IN THE LIBRARY DURING CRUNCH TIME 53–55 (2011), available at http://projectinfolit.org/pdfs/PIL_Fall2011_TechStudy_FullReport1.2.pdf; ALISON J. HEAD & MICHAEL B. EISENBERG, FINDING CONTEXT: WHAT TODAY'S COLLEGE STUDENTS SAY ABOUT CONDUCTING RESEARCH IN THE DIGITAL AGE 9–10 (2009), available at http://projectinfolit.org/pdfs/PIL_ProgressReport_2_2009.pdf; NEIL HOWE & WILLIAM STRAUSS, MILLENNIALS GO TO COLLEGE (2d ed. 2007).

¹⁰⁷ See, e.g., Siva Vaidhyanathan, *Generational Myth*, CHRON. OF HIGHER EDUC., Sept. 19, 2008, at B7.

¹⁰⁸ See Gallacher, *supra* note 28, at 154; see also Kathryn Hensiak, Stephanie Burke & Donna Nixon, AALL/Aspen Publishers Grant Program, *Final Report* (2004) (prepared for the 2004 American Association of Law Libraries Annual Meeting in Boston, Mass.) (on file with authors).

about their reading, writing, and research habits.¹⁰⁹ The study showed that incoming law students read more than the national average and tend to overestimate their research and writing skills.¹¹⁰ While there were some questions related to information literacy, this was not the sole focus of the survey.

Before developing a legal research curriculum based on an information literacy framework, we thought it was important to ascertain a more detailed baseline for the kinds of information literacy skills incoming law students possess. None of the existing surveys focus explicitly on the information literacy skills of incoming law students.¹¹¹ There is no information about how the information literacy skills of law students differ, if at all, from those of the general college graduate population. The online environment has changed so rapidly that a snapshot of the current generation entering law school will be useful for understanding how to tailor a legal research program based on an information literacy framework. To this end, we developed and conducted a survey of students entering law school in the fall of 2011.

IV. THE SURVEY

A. Methodology

The survey data was collected in August and September 2011.¹¹² We sought to survey a population that included public and private schools, schools with both large and small incoming classes, and schools that were diverse with respect to geography and the academic profiles of their incoming classes. The incoming classes of twelve law schools took part in the survey.¹¹³ The survey was administered with the permission of the Institutional Review Boards of all the participating schools.

Survey participants were recruited through an email containing a URL link to the survey.¹¹⁴ The email requested that students interested in

¹⁰⁹ See Gallacher, *supra* note 28, at 154.

¹¹⁰ *Id.* at 181.

¹¹¹ See *id.* at 180–81 (including information literacy skills). But, the Gallacher survey focused more broadly on literacy. *Id.* at 199–215. In addition, the survey is now several years old. *Id.* at 151.

¹¹² A copy of the complete survey results is on file with the authors.

¹¹³ The participating schools were: Drake University Law School; Elon University School of Law; George Washington University Law School; The John Marshall Law School; Northwestern University Law School; Shepard Broad Law Center; Nova Southeastern University; University of Pennsylvania Law School; University of South Carolina School of Law; Stetson University College of Law; Temple University, Beasley School of Law; University of Nevada-Las Vegas, William S. Boyd School of Law; and Wake Forest University School of Law.

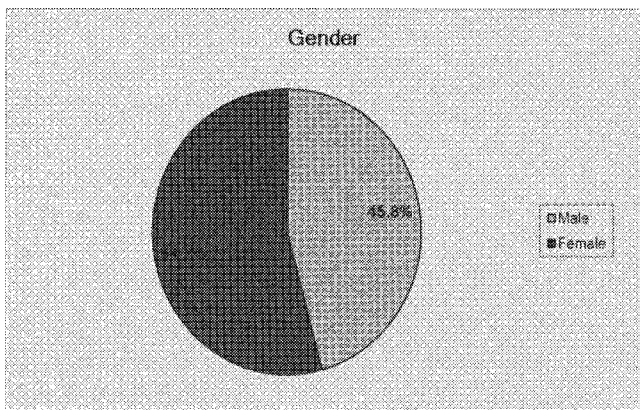
¹¹⁴ The email was sent by liaisons at the participating schools. We thank the following liaisons at the participating schools for their assistance in recruiting survey participants: Mel Weresh and John Edwards (Drake), Catherine Wasson (Elon), Jessica Clark (George Washington), Anthony Niedwicky (John Marshall), Judy Rosenbaum and Cliff Zimmerman (Northwestern), David Cleveland and Elena Langan (Nova Southeastern), Anne Kringel (Penn), Lisa Eichorn (South Carolina), Kirsten Davis (Stetson), Marylouise Esten (Temple), Terri Pollman (UNLV), and Chris Coughlin (Wake Forest).

completing the voluntary survey do so during the first few weeks of the semester.¹¹⁵ The survey was administered using SurveyMonkey, an online data collection tool.¹¹⁶

The survey instrument was designed to elicit information regarding students' research training, experience, and general research practices. It contained twenty-nine questions, and took approximately twenty-five minutes to complete.

B. Demographics

Ultimately, 712 students¹¹⁷ participated in the survey.¹¹⁸ The survey respondents were 54.2% female and 45.8% male.¹¹⁹



The majority of the respondents were age 25 or younger—71% of the total survey participants fell into this group.¹²⁰ The specific breakdown of the respondents' ages is as follows:

¹¹⁵ A copy of the email is on file with the authors.

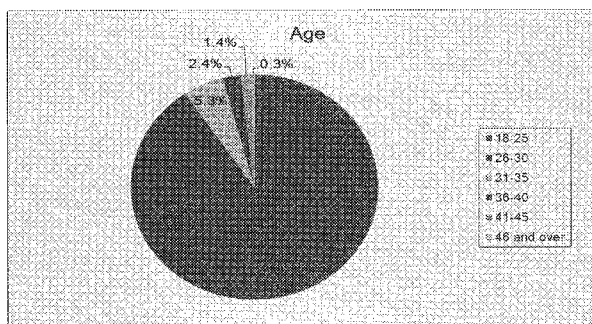
¹¹⁶ SURVEYMONKEY, <http://www.surveymonkey.com> (last visited Sept. 18, 2012).

¹¹⁷ This constituted approximately 21% of the population from which subjects were recruited. The incoming 1L classes of the twelve participating law schools included 3400 students (data compiled from participating schools on file with authors).

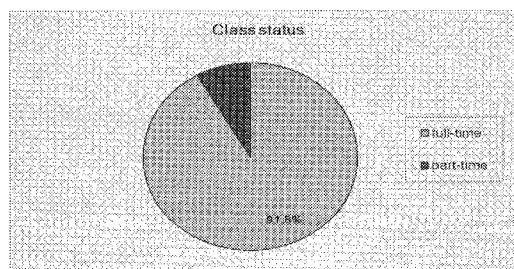
¹¹⁸ At least 8% of the incoming class of each participating school participated in the survey, and each school made up between approximately 4 and 16% of the overall respondents (data on file with authors).

¹¹⁹ ELLIE MARGOLIS & KRISTEN MURRAY, INFORMATION LITERACY-THE NEXT WAVE OF LEGAL RESEARCH INSTRUCTION (2011) [hereinafter SURVEY RESULTS] (on file with author) (§ I, Question 1).

¹²⁰ *Id.* § I, at Question 2. LSAC reports that in 2009, 53% of law school applicants were 24 or younger and 82% were under 30. See KIMBERLY DUSTMAN & PHIL HANDWORK, LAW SCH. ADMISSIONS COUNCIL, ANALYSIS OF LAW SCHOOL APPLICANTS BY AGE GROUP 3 (2010), available at <http://www.lsac.org/LSACResources/Data/PDFs/Analysis-Applicants-by-Age-Group.pdf>.



Their year of college graduation ranged from 1981 to 2011.¹²¹ The respondents attended 308 different colleges and universities for their undergraduate degrees.¹²² They represented more than 100 different undergraduate fields of study;¹²³ 162 of the respondents began law school after earning an advanced degree in another field.¹²⁴ Most of the respondents (91.8%) were enrolled in law school full-time at the time they took the survey.¹²⁵



C. Survey Results

The first two substantive survey questions asked about students'

¹²¹ SURVEY RESULTS, *supra* note 119, § I, at Question 3.

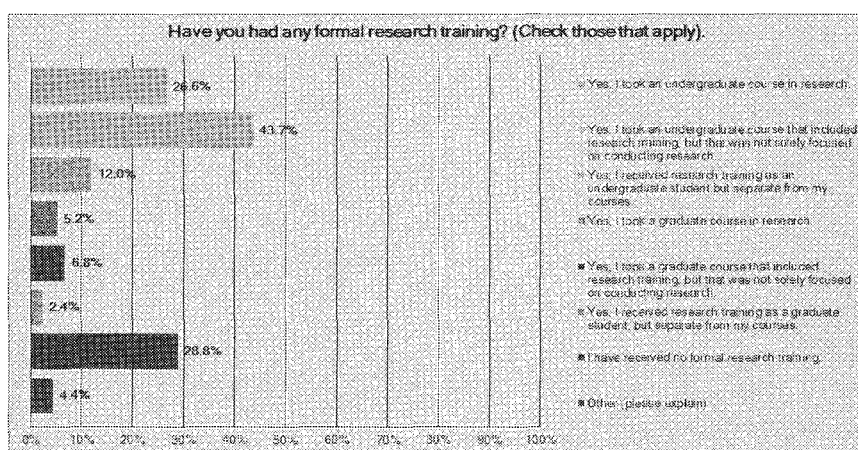
¹²² *Id.* § I, at Question 4 (The most common institutions of undergraduate higher education were: Cornell University, DePaul University, Drake University, Florida State University, Indiana University-Bloomington, Iowa State University, New York University, Northwestern University, Pennsylvania State University, Princeton University, University of North Carolina-Chapel Hill, University of Florida, University of Illinois-Chicago, University of Iowa, University of Michigan, University of Pennsylvania, University of South Carolina, University of South Florida, Vanderbilt University, and Villanova University.).

¹²³ *Id.* § I, at Question 5 (showing 281 respondents studied in a pre-law field such as political science, government, and legal studies; 197 students studied the humanities (history, literature, languages, and religion); 102 studied business and business-related fields; 76 studied science, technology/computing, engineering, and math; 73 studied psychology, sociology and education; 44 studied international studies and relations; 37 studied communications and communications-related fields; and 8 studied in a field that did not fit into these broad categories).

¹²⁴ *Id.* § I, at Question 6.

¹²⁵ *Id.* § I, at Question 8 (8.2% were enrolled in part-time programs.) Six of the participating schools (George Washington, John Marshall, Nova-Southeastern, Stetson, Temple, and UNLV) have a part-time option for J.D. students (data on file with authors).

research and writing experience.¹²⁶ Most of the respondents received some form of research training; 28.8% of the respondents said that they had received no formal research training at all.¹²⁷ 26.6% of the respondents took an undergraduate course specifically focused on research, and 5.2% took a graduate course in research.¹²⁸ Other students had research training through courses that were not solely focused on how to do research—43.7% of students had such a course as undergraduates and 6.8% as graduate students.¹²⁹ Other students were trained in research outside of their formal coursework: 12% were trained as undergraduates and 2.4% as graduate students.¹³⁰ 4.4% of the respondents answered “other” to this question.¹³¹



The respondents also had diverse writing experiences. As undergraduate or graduate students, 75.8% of the respondents wrote a research paper of up to 10 pages in length; 77.8% wrote a research paper of 11–20 pages in length; 51.6% wrote a research paper of 21–40 pages in length; and 18.9% wrote a research paper of more than 40 pages.¹³² 32.2% of students wrote a paper characterized as an undergraduate thesis, and 5.4% wrote a graduate thesis.¹³³ Fewer than 1% of the respondents (five total) completed a dissertation.¹³⁴ And 5% of respondents completed some “other significant writing project.”¹³⁵

¹²⁶ *Id.* § II, at 1, 2.

¹²⁷ *Id.* § II, at Question 1.

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

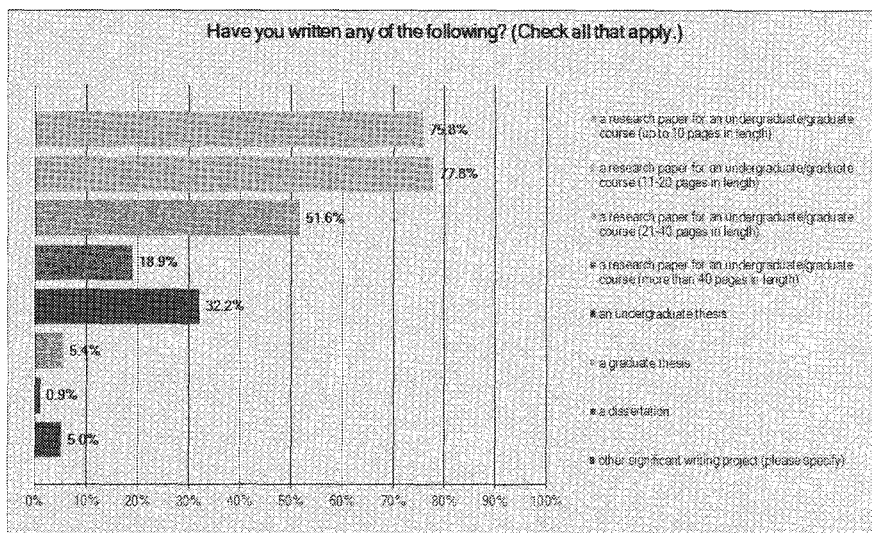
¹³¹ *Id.* (identifying that the “other” responses included training in: high school, on-the-job professional training, certificate programs, and formal Air Force training in intelligence analysis and research).

¹³² *Id.* § II, at Question 2.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.* (identifying that the “other” responses included grant and research material that were written through research assistantships; policy papers and research proposals; and one philosophy paper that was



Survey Question 3 (Section II) asked students the simple question: “What is the purpose of research?”¹³⁶ Most students (58.6%) indicated that the purpose was “to find all material relevant to my topic,” but 41.4% gave some other answer.¹³⁷ Only 6.1% noted that the purpose was “to find enough material to meet the requirements of the assignment.”¹³⁸ The “other” responses (9.7%) to this question included responses indicating the purpose depends on the specific project at hand,¹³⁹ responses offering a more nuanced perspective than was offered by the question,¹⁴⁰ and responses leaning toward a more philosophical perspective.¹⁴¹ The full set of answers is as follows:¹⁴²

published in a small professional journal, but the respondent noted: “I wouldn’t deem philosophy ‘research.’”).

¹³⁶ *Id.* § II, at Question 3.

¹³⁷ *Id.*

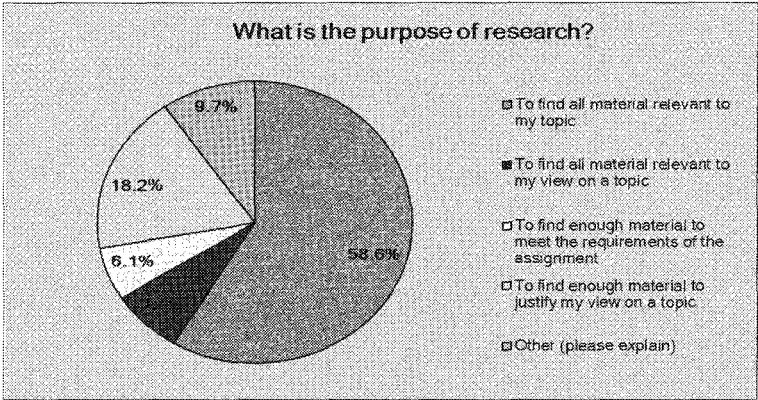
¹³⁸ *Id.*

¹³⁹ *Id.* (“Research is done for different reasons, and in varying depths.”).

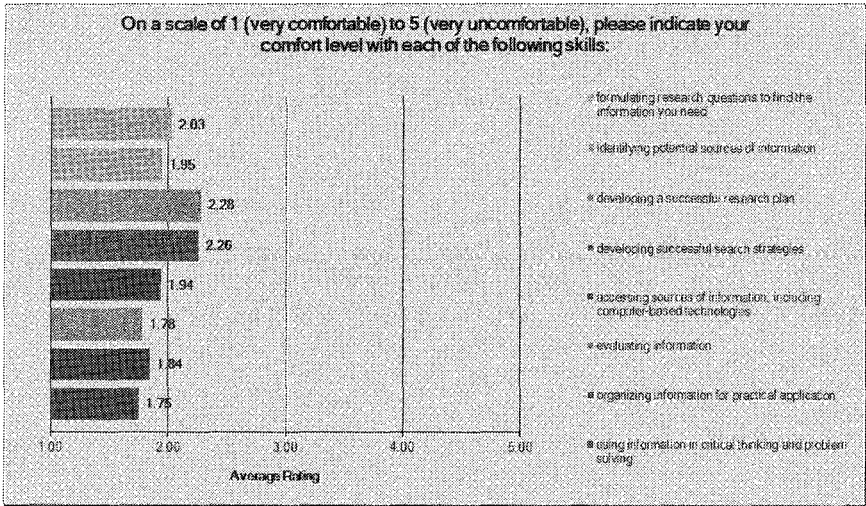
¹⁴⁰ *Id.* (“To develop an understanding of and hypothesis about my topic, as well as the contours of the existing body of research and the pertinent, unanswered questions, and then to prove or disprove my hypothesis within the context of the domain, the requirements of the assignment, and honest scholarly principles.”).

¹⁴¹ *Id.* (“Research is the most thorough process by which you can answer whatever question lies at the heart of the matter.”).

¹⁴² *Id.* (All of the “other” responses were either more general or more nuanced descriptions in the same vein as the other possible answers).



Questions 4 (Section II) and 5 (Section II) sought to examine students’ comfort levels and experience with various research tasks.¹⁴³ Question 4 (Section II) asked: “On a scale of 1 (very comfortable) to 5 (very uncomfortable), please indicate your comfort level with each of the following skills”¹⁴⁴ Students were asked to evaluate their own proficiency with eight different research-related skills.¹⁴⁵ The results were as follows:



“Somewhat comfortable” was the most popular answer in all of the categories but one: evaluating information, where a slim majority of respondents noted that they were “very comfortable.”¹⁴⁶ The respondents were overwhelmingly comfortable (whether “very” or “somewhat”) with the

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Id. § II, at Questions 4, 5.

144

Id. § II, at Question 4.

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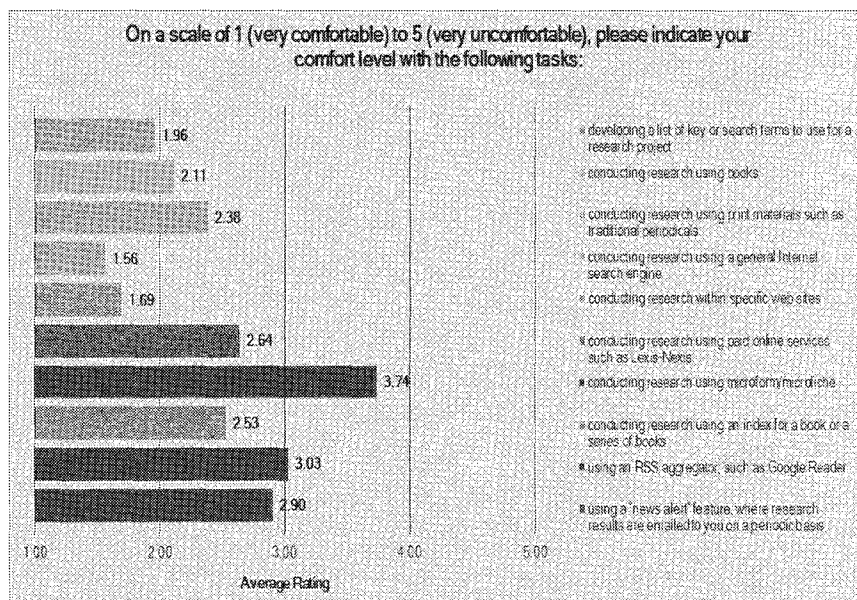
Id.

146

Id.

skills set forth in this question.¹⁴⁷

Question 5 (Section II) involved specific research tasks, and asked: “On a scale of 1 (very comfortable) to 5 (very uncomfortable), please indicate your comfort level with the following tasks”¹⁴⁸ The question included ten different research-related tasks.¹⁴⁹ The answers were as follows:



As in Question 4 (Section II), the respondents generally demonstrated a fair amount of comfort with these research tasks.¹⁵⁰ They expressed the most comfort with online searching and searching within websites, and less comfort with tools such as RSS aggregators and news alerts.¹⁵¹ Not surprisingly, only 1.7% of the respondents expressed any amount of comfort using microform/microfiche.¹⁵²

Questions 6 (Section II) and 7 (Section II) inquired about specific types of research sources.¹⁵³ Question 6 (Section II) asked how often students used research tools and sources.¹⁵⁴ They answered as follows:

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* § II, at Question 5.

¹⁴⁹ *Id.*

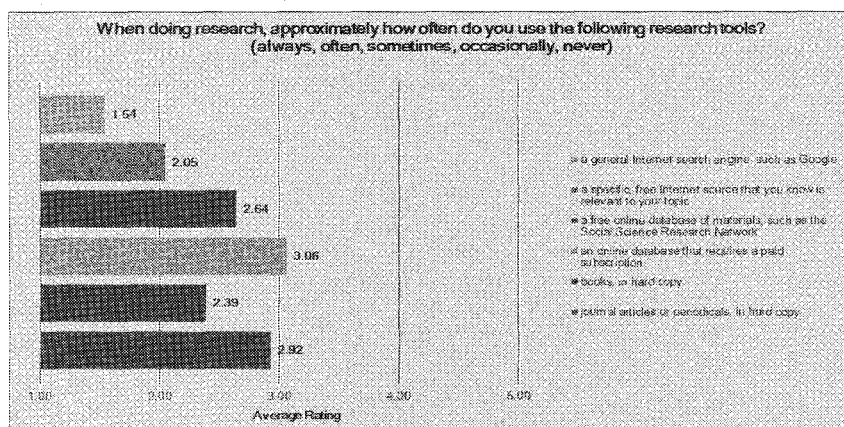
¹⁵⁰ *Id.* § II, at Questions 4, 5.

¹⁵¹ *Id.* § II, at Question 5.

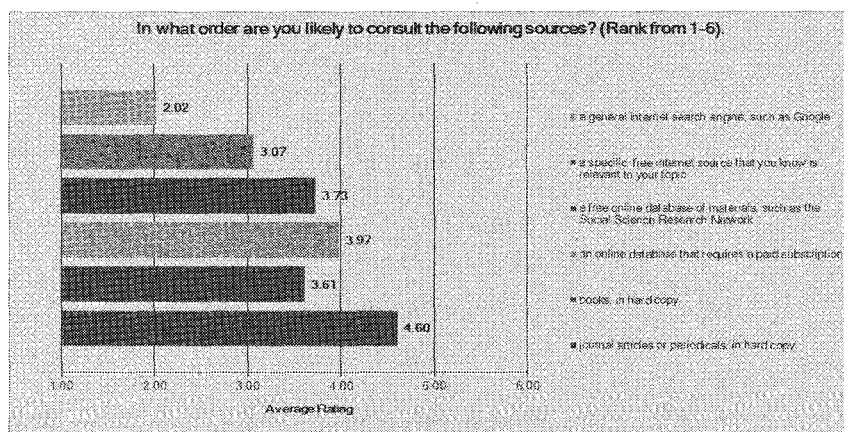
¹⁵² *Id.*

¹⁵³ *Id.* § II, at Question 6, 7.

¹⁵⁴ *Id.* § II, at Question 6.



Question 7 (Section II) then asked the students to rank these same sources in the order in which they would consult them.¹⁵⁵



The responses to these two questions were fairly consistent: general internet search engines were used most frequently (always/often) and were most often the first type of source consulted.¹⁵⁶ The variation in the most popular answers came in the least frequently consulted sources—paid subscription databases and hard copies of journals and other periodicals—both of which were consulted only “sometimes” and were the least likely to be consulted as a first research step.¹⁵⁷ Respondents also showed a general preference for consulting online materials before hard copy materials, with the exception of a willingness to consult books in hard copy before turning to a free online database such as Social Science Research Network (“SSRN”).¹⁵⁸

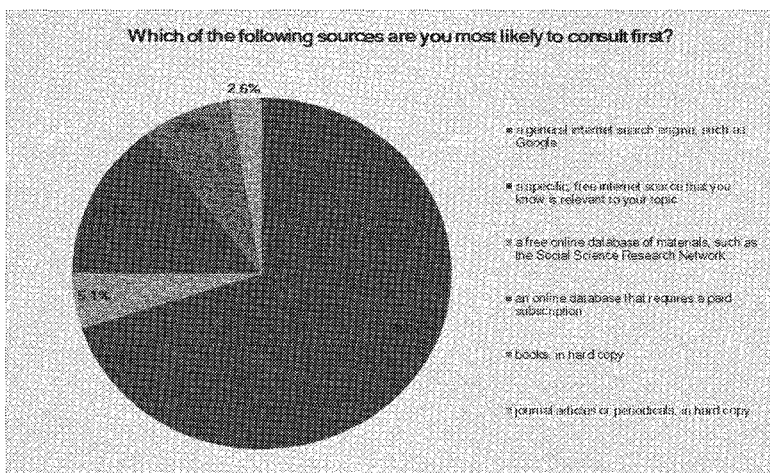
¹⁵⁵ *Id.* § II, at Question 7.

¹⁵⁶ *Id.*

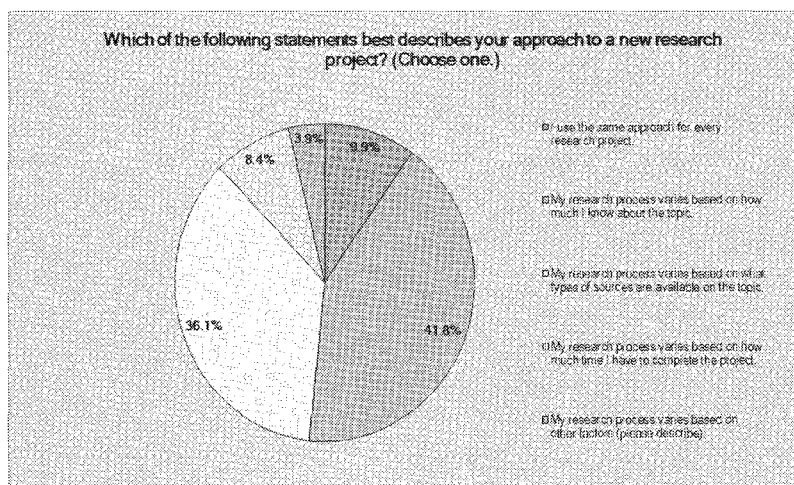
¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

General internet searching was clearly the most popular “first choice” source—61.2% of the respondents are most likely to conduct this type of search first.¹⁵⁹ Only 10.4% of the respondents turn to sources in hard copy (books or periodicals) first.¹⁶⁰



Questions 8 (Section II) and 9 (Section II) inquired about students' research processes.¹⁶¹ Question 8 (Section II) asked: “Which of the following statements best describes your approach to a new research project?”¹⁶² The most popular answers indicated that the research process varies based on how much the respondent knows about the topic (41.8%) or what types of sources are available on the topic (36.1%)¹⁶³:



¹⁵⁹ *Id.*

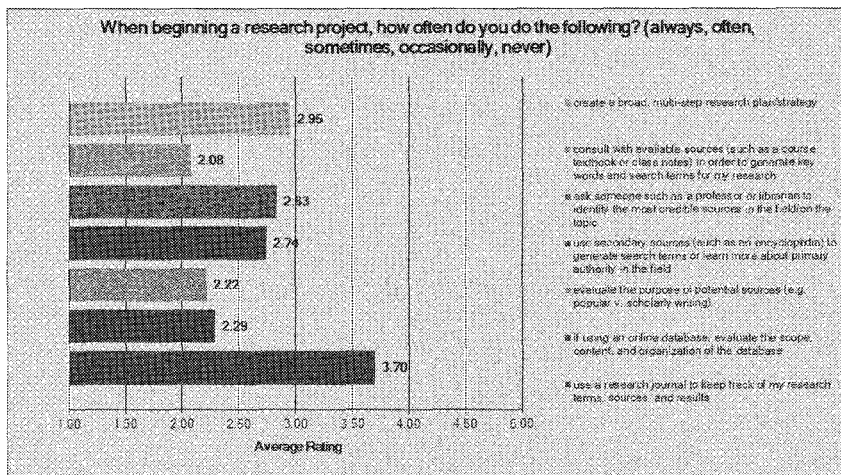
¹⁶⁰ *Id.*

¹⁶¹ *Id.* § II, at Questions 8, 9.

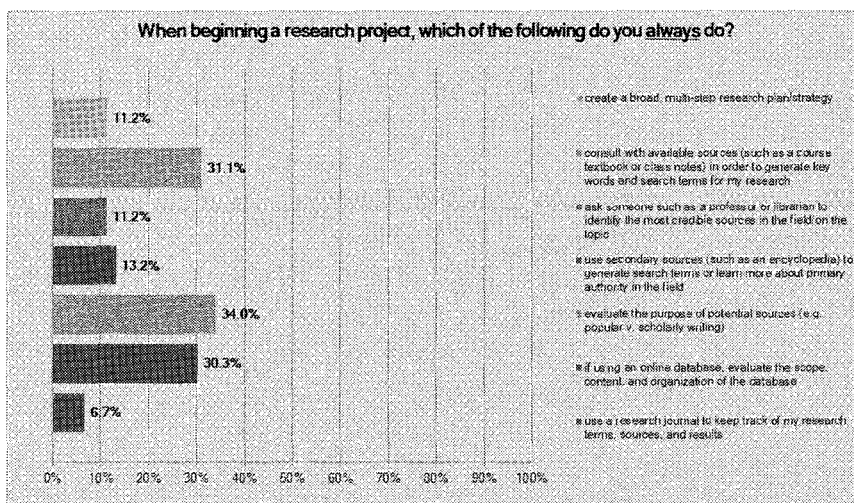
¹⁶² *Id.* §II, at Question 8.

¹⁶³ *Id.*

Question 9 (Section II) then asked students how often they take certain steps common to the research process.¹⁶⁴



Here, most responses clustered in the range of “often” and “sometimes,” with the exception of the use of a research journal, which most respondents do only occasionally.¹⁶⁵ There is slightly more variation in what respondents “always” do, as shown here¹⁶⁶:



Here, 30–34% of respondents “always” evaluate the scope, content, and organization of online databases; consult with available sources to generate key words and search terms; and evaluate the purpose of potential

¹⁶⁴ *Id.* § II, at Question 9.

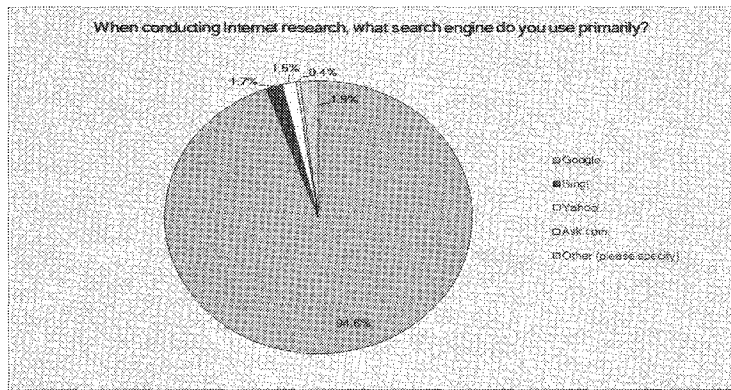
¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

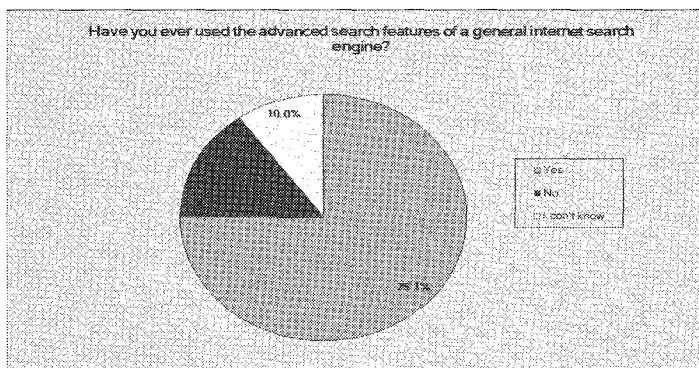
sources.¹⁶⁷ In contrast, only 6.7% of respondents always use a research journal to track their research.¹⁶⁸

Questions 10–15 (Section II) inquired about various practices regarding Internet and online research, based on the (correct) presumption that the respondents were doing at least some research online, and the growing trend toward exclusively online legal research done and taught in law school.¹⁶⁹

Question 10 (Section II) asked about the respondents' most commonly used search engine.¹⁷⁰ Not surprisingly, the most common answer (given by 94.6% of the respondents) was Google.¹⁷¹



75.1% of the respondents have used the advanced search features of a general internet search engine.¹⁷²



¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

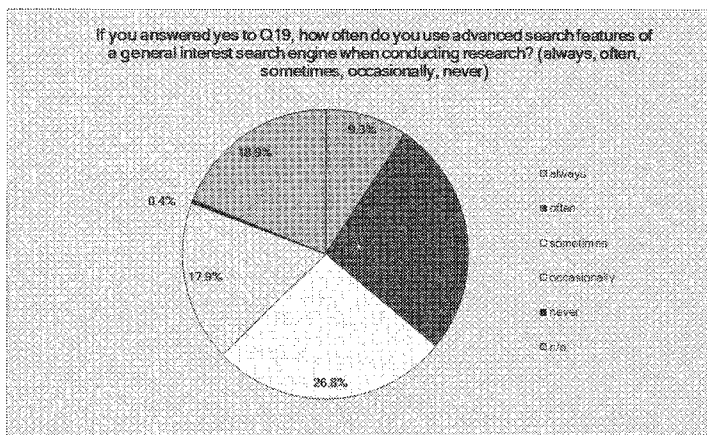
¹⁶⁹ *Id.* § II, at Question 10–15.

¹⁷⁰ *Id.* § II, at Question 10.

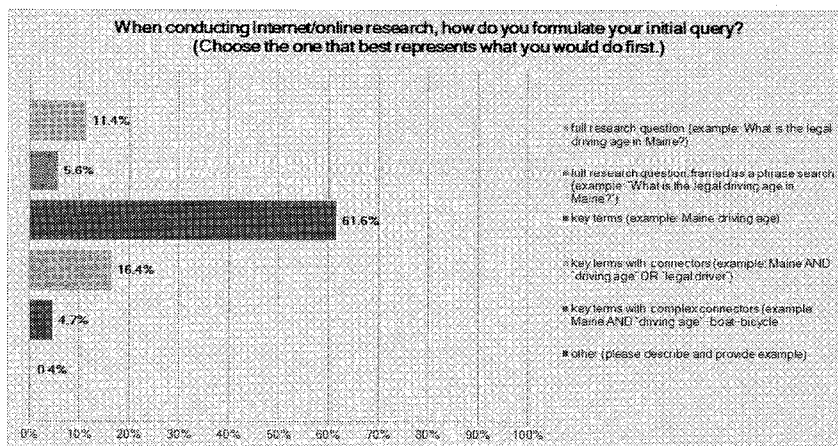
¹⁷¹ *Id.* The other responses to this question were Bing (1.7%), Yahoo! (1.5%), and Ask.com (0.4%). *Id.* The “other” responses comprised 1.9% of the respondents and included Google Scholar, JSTOR, and other scholarly databases. *Id.*

¹⁷² *Id.* § II, at Question 11 (14.9% of respondents said they had not, and 10% did not know if they had used them.).

Of those who said they had used these advanced search features, 9.3% “always” did so, 26.6% did so “often,” and 26.8% did so only sometimes.¹⁷³



Question 13 (Section II) asked students about how they formulated online research questions and asked which type of search they would execute first.¹⁷⁴ The most popular answer by far (61.6%) was a basic search using key terms (without connectors).¹⁷⁵ Only 4.7% of the respondents used key terms with complex connectors.¹⁷⁶



Question 14 (Section II) then asked about a hypothetical research strategy.¹⁷⁷ It stated: “Assume you have conducted a search using key

¹⁷³ *Id.* § II, at Question 12 (The full set of responses to this question were: always (9.3%), often (26.6%), sometimes (26.8%), occasionally (17.9%), never (0.4%), and n/a (18.9%).).

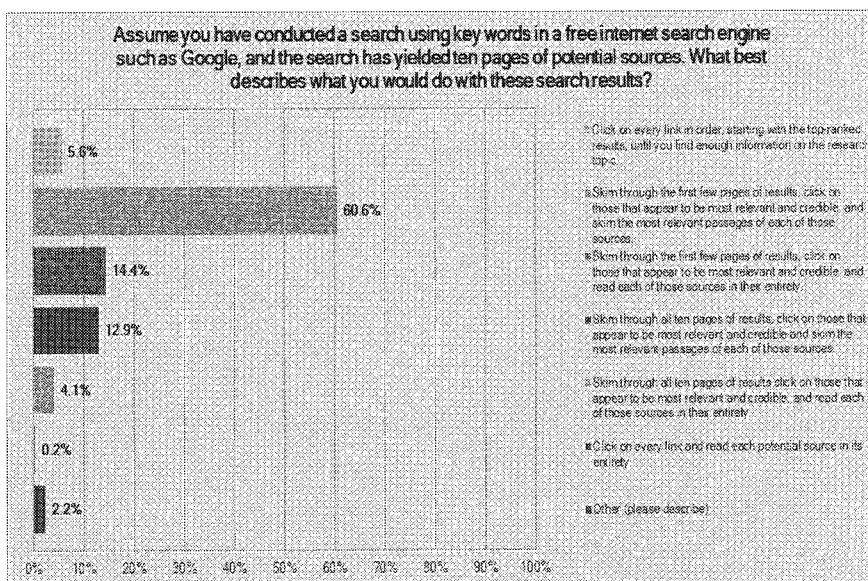
¹⁷⁴ *Id.* § II, at Question 13.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ *Id.* § II, at Question 14.

words in a free internet search engine such as Google, and the search has yielded ten pages of potential sources. What best describes what you would do with these search results?"¹⁷⁸ The students responded as follows:



Again, one answer here stood out: 60.6% of students said that they would “skim through the first few pages of results, click on those that appear to be most relevant and credible, and skim the most relevant passages of those sources.”¹⁷⁹ The next most popular answers involved skimming the results and then either reading or skimming those that looked most relevant and credible.¹⁸⁰ Only one intrepid researcher claimed to click on every link and read every research result in its entirety.¹⁸¹

Question 15 (Section II) posed another hypothetical: “Assume you have conducted a search of an electronic database of journal articles which has yielded 100 results. How do you choose the best five articles from the 100 citations? Please select only one.”¹⁸² The responses were:

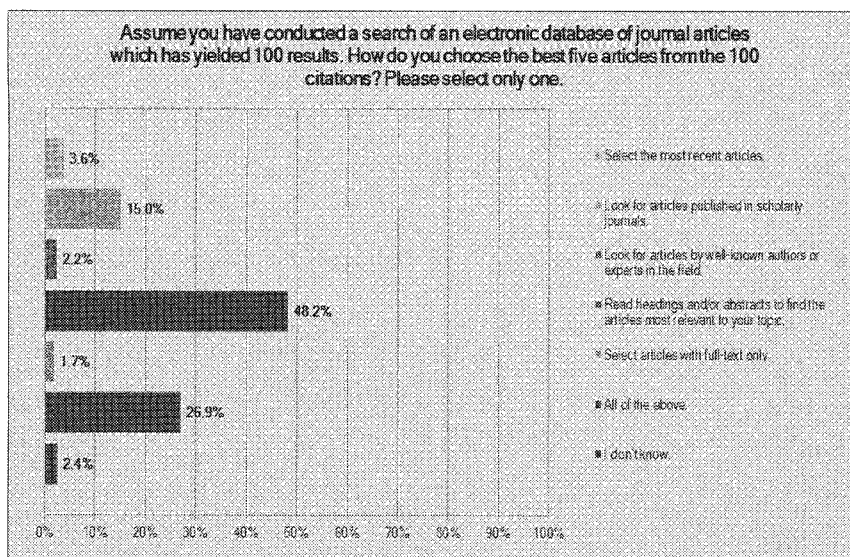
¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* § II, at Question 15.



Here, the most popular answer (48.2%) indicated that respondents read headings and/or abstracts to find the most relevant articles.¹⁸³ A fair number of respondents (26.9%) use a variety of methods to choose.¹⁸⁴ Another 2.4% indicated they did not know how they would decide.¹⁸⁵

Question 16 (Section II) was an open-ended question, posed as follows:

Assume you are a student in a course where the culminating exercise is a research paper. As a first step, the professor asks you to complete your initial research and turn in a report listing the sources you plan to use in your paper. Please describe the criteria you would use in selecting which sources to use in your paper, such as relevance of content, inclusion in course materials, reputation of author, reputation of publication, recency of publication, professor's preferences, etc.¹⁸⁶

The respondents indicated thirty-three different criteria that they use as part of this process.¹⁸⁷ The criteria included by the most respondents were relevance of content (339), reputation of publication (314), and recency of publication (226).¹⁸⁸ These were also the criteria most

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

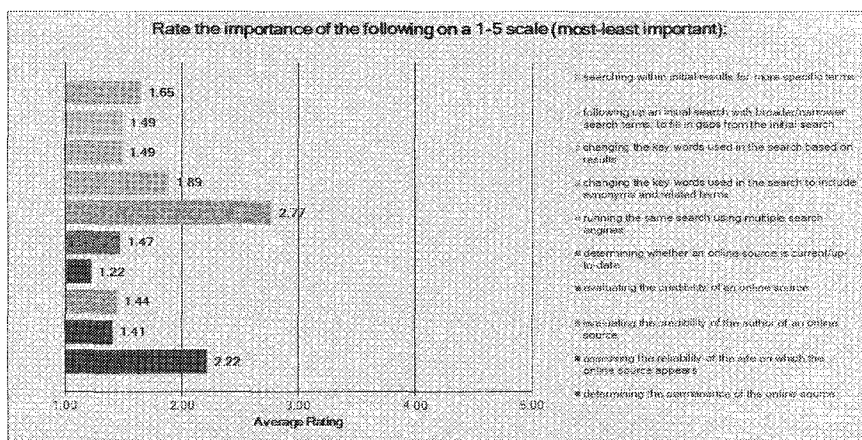
¹⁸⁶ *Id.* § II, at Question 16.

¹⁸⁷ *Id.*

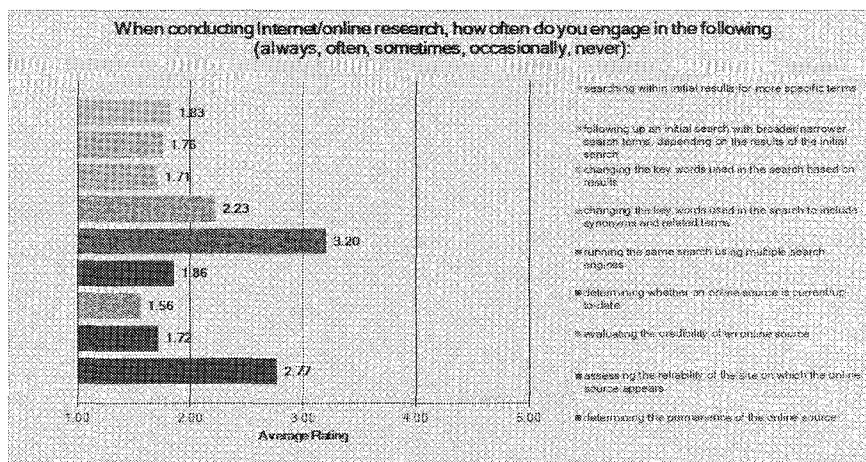
¹⁸⁸ *Id.* These criteria were included by 189 or more students: relevance of content, reputation of publication, recency of publication, reputation of author, professor's preferences, inclusion in course

commonly ranked as the most important.¹⁸⁹

Questions 17 (Section II) and 18 (Section II) asked about the importance and frequency of use of certain specific research strategies.¹⁹⁰ Question 17 (Section II) asked students to rate the importance of ten such strategies.¹⁹¹ The responses were as follows:



Question 18 (Section II) then asked about how frequently the students engaged in these steps in their own research.¹⁹² They answered as follows:



materials, and variety of sources/authors. *Id.* Twenty-one or fewer respondents included these criteria: ease of use, frequency of citation, accessibility of source, type of resource, counter-arguments included, content in abstract, quality of journal, length of article, comprehensiveness, full-text availability, advice of research librarian, availability (paid v. unpaid), jurisdiction, specificity, requirements of project, professor's own works, level of hilarity, accuracy, style of writing, originality, potential, consistency, familiarity with author's work, lack of bias, and popularity. *Id.*

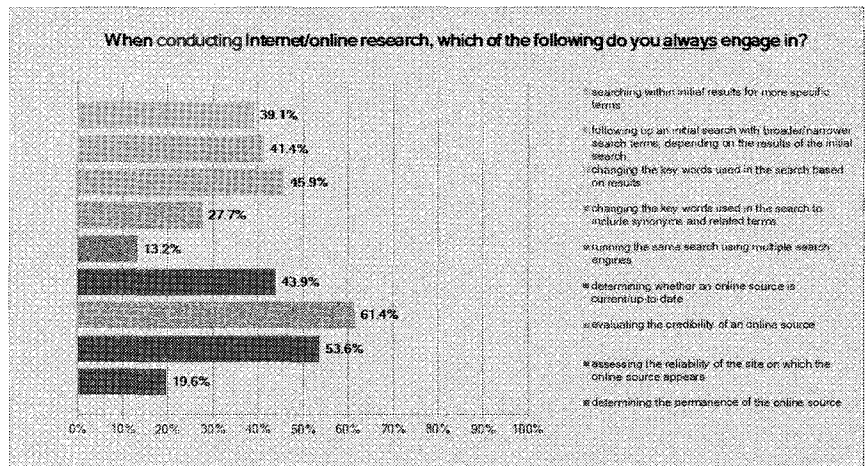
¹⁸⁹ *Id.* (Specifically, the criteria most commonly ranked as the most important were relevance of content (222), reputation of publication (81), and professor's preferences (25).)

¹⁹⁰ *Id.* § II, at Questions 17, 18.

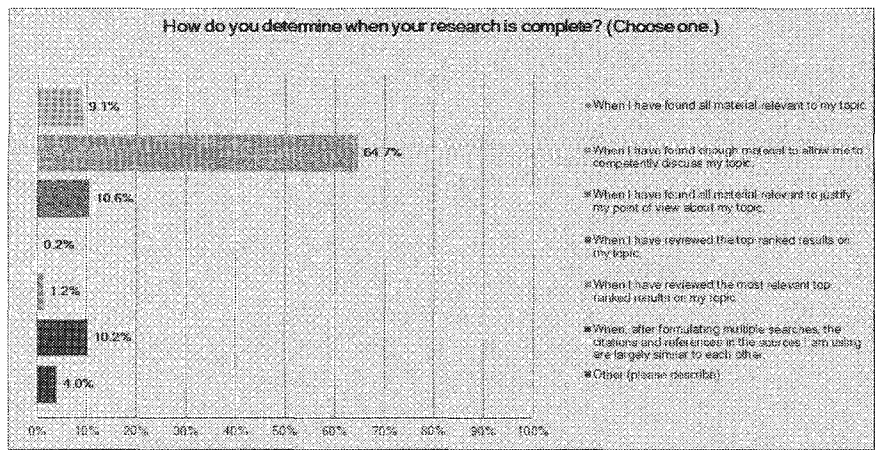
¹⁹¹ *Id.* § II, at Question 17.

¹⁹² *Id.* § II, at Question 19.

When looking at which steps the respondents always engage in, the answers were mostly consistent with respect to how frequently they engaged in certain research steps—the most frequent/always-executed research steps were evaluating a source’s credibility and reliability and varying key term searching, and the least popular steps were determining an online source’s permanence and running the same search using multiple search engines.¹⁹³



Question 19 (Section II) asked the respondents to indicate how they know their research is complete.¹⁹⁴ They answered as follows:



The most popular answer, chosen by 64.7% of the respondents, was “when I have found enough material to allow me to competently discuss my topic.”¹⁹⁵ The next three most popular results, hovering in the 9–11% range

193

Id.

194

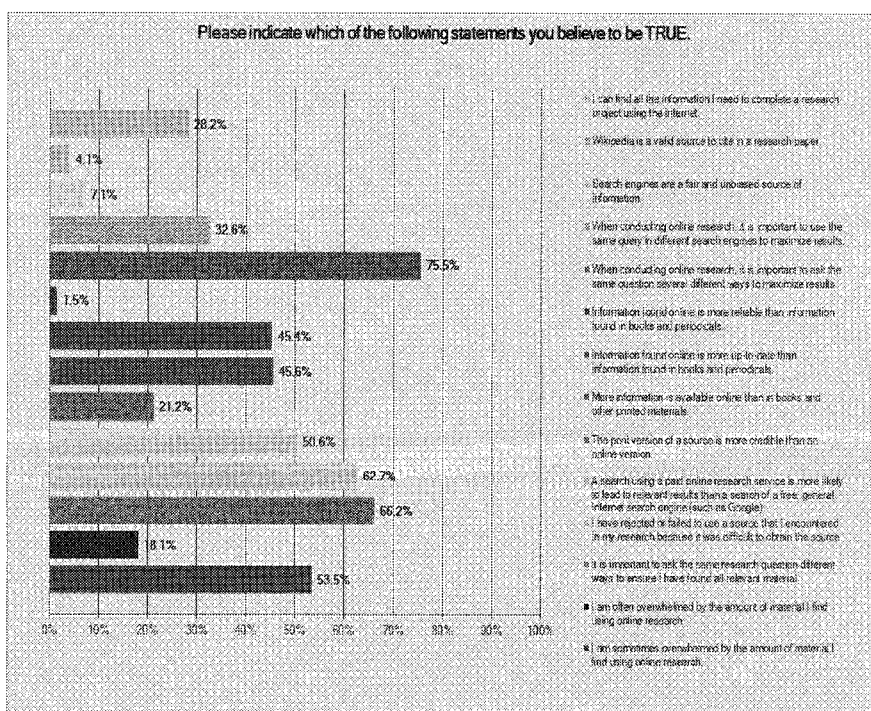
Id.

195

Id.

were “when I have found all material relevant to justify my point of view about my topic” (10.6%); “when, after formulating multiple searches, the citations and references in the sources I am using are largely similar to each other” (10.2%); and “when I have found all material relevant to my topic” (9.1%).¹⁹⁶

Question 20 (Section II) asked students to evaluate which of certain statements they believed to be true.¹⁹⁷ The statements included various research-related items designed to test certain notions that emerge from background research on information literacy.¹⁹⁸ The statements included the following:



These results were largely consistent with past research on information literacy and today's college-aged researchers. Of note are a few answers that indicate some limitations on the respondents' general preference for online research. For example, 71.6% of the respondents are either “often” or “sometimes” overwhelmed by the amount of information online research yields.¹⁹⁹ Also, only 28.2% of respondents think that a research project could be completed by only using resources on the Internet, and only 7.1%

¹⁹⁶ *Id.*

¹⁹⁷ *Id.* § II, at Question 20.

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

believe that search engines are a fair and unbiased source of information.²⁰⁰ Still, the respondents often choose the path of most convenience: 62.7% of the respondents have overlooked a source because it was difficult to obtain.²⁰¹ However, 66.2% of respondents recognize the importance of formulating different research questions when researching generally, and 75.5% believe it necessary to use different key terms in searches for online research specifically.²⁰²

Finally, Question 21 (Section II) was an open-ended question regarding additional relevant comments.²⁰³ Only thirty-six respondents provided an answer to this question.²⁰⁴ Their responses included additional detail about their research experience and processes, arguments for both the utility and obsolescence of print resources, and four defenses of Wikipedia.²⁰⁵

V. TEACHING LEGAL RESEARCH USING INFORMATION LITERACY

A. *Using the Survey Results to Think About Law Student Information Literacy*

As discussed above, information literacy is useful as a framework for both approaching and assessing research skills, techniques, and competencies. Information literacy as an assessment tool is easy to both conceptualize and implement.²⁰⁶ What is difficult is making the transition to using information literacy as a foundation for rethinking the way research instruction is delivered in law schools. This new paradigm requires those who teach legal research to let go of the process-based, bibliographic method of legal research instruction and start to conceive of the teaching of legal research as an expansion of law students' baseline information literacy. The survey provides useful information for all the stages of this transition.

First, the survey establishes a baseline of the information literacy levels of incoming law students that includes a mixed bag of results. Overall, the survey shows results that are consistent with studies of the general undergraduate population, with indicators of both high and low points of information literacy. Certainly, there are survey responses that are less than ideal. For example, almost 30% of the respondents noted that they had no formal research training before coming to law school.²⁰⁷ Many respondents also indicated that, at least sometimes, convenience would play

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ *Id.* § II, at Question 21.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ See discussion *supra* Part III.

²⁰⁷ SURVEY RESULTS, § II, at Question 1.

a role in their research choices.²⁰⁸ However, there are also a fair number of results that are promising, as the respondents claimed to have experience, proficiency, and high comfort levels with a wide variety of types of sources.²⁰⁹ These core research skills set the table for a transition from general information literacy to legal information literacy.

Furthermore, some of the results that might be seen as negative in the undergraduate research context might actually be seen as positive in the context of legal research. For example, broadly speaking, the survey results suggest that respondents have a certain amount of confidence in their own research abilities. For example, the respondents indicated they were “very” or “somewhat” comfortable with most of the core research skills included in survey Question 5 (Section II).²¹⁰ This is consistent with general information literacy research, which suggests that students’ confidence in their own research abilities has risen even as core skills have declined.²¹¹

However, a little confidence might not be a bad thing when it comes to *legal* research. Lack of confidence leads to many issues identified by legal writing professors teaching first-year law students.²¹² These include worry about finding the “right” answer, spending too much time researching (particularly for the “one” case that they believe will answer the legal question at hand), and not knowing when (or feeling confident that) their research is complete.²¹³ A confident researcher may be less prone to anxiety about adapting to a new research context, especially one that builds on their existing research abilities, as the information literacy paradigm does.

Second, the baseline information contained in the survey also shows that students are ready to move past traditional research instruction. Generally speaking, the survey respondents demonstrated comfort with general online search materials, less comfort with traditional print materials, and even less comfort with specialized materials both online and in print. For example, the respondents expressed a definite preference and privileging of online sources.²¹⁴ A majority of respondents begin their

²⁰⁸ See, e.g., *id.* § II, at Question 20.

²⁰⁹ For example, the responses to question 20 show highly literate answers regarding credibility and reliability of various sources. *Id.*

²¹⁰ *Id.* § II, at Question 5 (More than half the respondents indicated they were very or somewhat comfortable with these research skills: conducting research using a general Internet search engine (90.6%); conducting research within specific web sites (88.2%); developing a list of key or search terms to use for a research project (80%); conducting research using books (72%); conducting research using print materials such as traditional periodicals (60.9%); conducting research using an index for a book or a series of books (55.5%); and conducting research using paid online services such as Lexis-Nexis (51.2%).).

²¹¹ Gallacher, *supra* note 28, at 182–92; Kaplan & Davril, *supra* note 16, at 163–64; Sloan, *supra* note 3, at 139; Valentine, *supra* note 11, at 220–21.

²¹² Bowman, *supra* note 13, at 536.

²¹³ *Id.* at 534–35.

²¹⁴ See, e.g., SURVEY RESULTS, § II, at Questions 5–7.

research with a basic Google search using key terms.²¹⁵ The respondents also seemed less familiar and/or comfortable with a process-based research approach and tended to eschew the idea of using a research plan or journal.²¹⁶

Taken together, these results indicate that today's researchers arrive at law school with basic familiarity with—and a preference for searching with—search engines, development of key words, and search terms, and are used to culling through online search results. Thus, they have an understanding of how online legal research services (both paid and unpaid) function. And they want to begin their research by *doing*, not planning. This type of searching is possible with today's legal research technology; what these students need is guidance to sharpen their research skills in the legal context. Thus, what has previously been interpreted as a decline in the baseline information literacy levels of college graduates may also be interpreted as a readiness to move to a new way of approaching research.

Third, and finally, the survey provides opportunities to see where traditional information literacy and legal information literacy require different approaches. No college graduate will arrive at a graduate or professional school with full information literacy in the discipline she plans to study. Part of the experience of advanced higher education will necessarily include an introduction to discipline-specific concepts, norms, and competencies.²¹⁷ Thus, irrespective of new law students' baseline levels of general information literacy, they also need to learn legal information literacy.

For example, Question 19 (Section II) of the survey asked students when they deemed their research to be complete.²¹⁸ By far, the majority of respondents chose what in a traditional research environment would be an acceptable answer: 64.7% of them indicated that they sought to find enough material to allow them to competently discuss their topic.²¹⁹ However, the best answer in the legal research context is the one that only 10.2% of students chose: when you start seeing the same source over and over again.²²⁰ This is knowledge that students must acquire in law school, and we would not expect even those students who have high levels of general information literacy to know this at the start of the first year.

²¹⁵ See, e.g., *id.* § II, at Questions 6, 7, and 13.

²¹⁶ See, e.g., *id.* § II, at Questions 9, 21.

²¹⁷ See generally Bowman, *supra* note 13, at 513–19.

²¹⁸ SURVEY RESULTS, § II, at Question 19.

²¹⁹ *Id.*

²²⁰ *Id.*; see also BARKAN, *supra* note 33, at 20 (stating that finding repetitive citations and information in sources may suggest that the research process is complete); see also OATES, *supra* note 33, at 59 (advising to stop researching for an applicable rule when general rules or statutes appear in case after case); SLOAN, *supra* note 33, at 345–46 (suggesting that as a general rule, stop researching when sources are referring back to one another without revealing important new information).

Similarly, Question 5 (Section II) indicated that most respondents had a mid-range comfort level with tools that enable a researcher to keep her research up-to-date, such as an RSS aggregator or news alert.²²¹ Law students need to be made aware of the importance of maintaining current, updated legal research, because they may have been trained to research in a discipline where this is less important. In the legal research context, updating and checking the continuing validity of sources is critical because of the legal system's concepts of precedent and stare decisis.²²² This differentiates legal research from most undergraduate research and is, thus, a critical focus for information literacy in the legal context.

To be certain, the survey is in many ways simply a starting point for this discussion—it is self-reported, it includes a relatively small slice of the incoming law student population, and it does not—and cannot—answer the question of what the next wave of legal research instruction should look like. However, the survey information provides a useful baseline. Students arrive at law school with certain research competencies, confidences, and practices. Irrespective of these, we must introduce them to the legal research world, which overlaps only partly with the types and nature of research they have done before. The remaining question is how we can leverage their existing knowledge to develop high levels of legal information literacy.

B. Using Information Literacy to Reframe Legal Research Pedagogy

The concept of information literacy provides a new framework for thinking about teaching legal research. Legal research professors should start to think of the goal of legal research instruction as, simply, to increase the level of information literacy in our students in the context of law; stated differently, we want them to develop high levels of *legal* information literacy. This is, of course, an abstract concept, one that requires those who teach legal research to take several transitional steps.

The first step in the transition to the information literacy paradigm requires teachers of legal research to let go of the old paradigm and embrace the idea of legal research as fluid and non-linear instead of the result of a prescribed, multi-step process. The traditional approach to teaching legal research, which begins with finding tools, print resources, and database selection, does not leverage today's legal research technologies or the information literacy of incoming law students. Instead of trying to integrate online search techniques into the existing legal research framework, it is time to rethink legal research with online technology as the starting point.

This first step—moving away from the traditional method of

²²¹ SURVEY RESULTS, § II, at Question 5.

²²² SLOAN, *supra* note 33, at 143–44.

teaching bibliographic research through a multi-step process—will be difficult. It has been the status quo for many years, and its components are well-established and fit neatly together.²²³ Finding tools were useful to introduce different types of legal sources and to provide a natural starting point to a process-based method of instruction. Secondary sources provided a useful introduction to a subject matter area that students could engage with before attempting to find actual law.²²⁴

Now, though, these traditional steps are inefficient and possibly harmful to our students. The traditional approach to legal research, because of its focus on finding, does not teach students how to discern and evaluate different types of sources until late in the process. Given the functionalities of current research technology, this approach does not help students conduct effective and efficient research. Even if we try to hold back our students from researching on the paid legal services websites, by advising against it or withholding access, there are now enough free legal research sources easily found through Googling that they are unlikely to wait for us to grant them permission to start researching online. New legal researchers are going to get their hands on primary legal authority without any idea of how to evaluate the source. We need to teach students how to be discerning without relying on the bibliographic model as a way of reaching them.

The traditional steps for teaching legal research may soon be mooted anyway. As new products, algorithms, devices, apps, and other innovations are introduced, traditional print resources may be phased out of publication.²²⁵ In the coming years, it is likely that there will be even more shrinking of traditional resources so that they cannot be the starting point for legal research instruction.²²⁶ The advantage of an information literacy paradigm is that it is easily transferable to the latest research technology.

The second step in this process is developing a method of legal research instruction built upon the idea of legal information literacy. There is no one-size-fits-all approach to implementation. This is consistent with traditional legal research instruction, where legal research is taught using different combinations of staffing models, timing, course format, and other

²²³ See discussion *supra* Part II.

²²⁴ Gallacher, *supra* note 23, at 161–62, 202 (noting that while the traditional approach to conducting legal research requires that a researcher consult secondary sources in print first for background information, today's researcher should be taught how to locate secondary sources in the course of their online research). Secondary sources are certainly still a valuable tool in understanding and researching the law, but under the information literacy framework, they no longer need to be seen as a necessary step in a linear research process.

²²⁵ Lihosit, *supra* note 4, at 158 (explaining that in some instances online sources have already completely replaced print materials).

²²⁶ Beneke, *supra* note 3, at 116 (noting that print sources are becoming more scarce as more information is available online).

variables.²²⁷ The anchoring principle here is that we no longer need to teach about “finding” the law. A new legal researcher’s first action is going to be some kind of search, and that search is going to yield some type of legal source; there is almost no way a search will produce zero results. A large amount of legal information is now available, for free, online, and it is almost impossible to run a general internet search that yields no results.²²⁸ Searches on the paid legal research services can now run through thousands of databases and sources, increasing the likelihood that even highly specific searches are likely to yield some number of search results.²²⁹ Furthermore, we may also wish to no longer divorce the notions of “free” and “paid” legal research, which have traditionally been taught separately.

Our goal, then, is to allow our students to jump into researching and then to teach them about analysis and evaluation of those results and how to ask questions that will let them filter through resources. These skills are precisely what information literacy is designed for. By providing students with a deeper level of information literacy, we will equip them with skills that are easily transferable as research technology continues to develop and change.

What teaching analysis and evaluation looks like depends on the level of information literacy the students already possess. It might come in the form of a series of questions: “What did I find? Is it law or something else? If it is law, is it law I need to answer my research question? If it is not law, is it a source I can trust?” Similar concepts could be laid out in a research flowchart or diagram. Legal research professors may want to inventory the incoming class in order to establish a baseline based on a specific group of students’ experience. One might also design a research syllabus using the AALL Information Literacy Principles, or use them to design a rubric to comment on students’ research results and reports. There are any number of variations of practical teaching and assessment devices that can be employed in this new paradigm.

In the classroom, the transition to a paradigm based on information literacy must be marked by an increased focus on process and hands-on research. For example, one common method of introducing students to legal sources and the legal research process involves lecture-based instruction about mandatory and persuasive authority and primary and secondary

²²⁷ See generally ABA SECTION OF LEGAL EDUC. AND ADMISSIONS TO THE BAR, SOURCEBOOK ON LEGAL WRITING PROGRAMS, (2d ed., Thomson West 2006)..

²²⁸ See ABOUT GOOGLENOPE (2007), <http://googlenope.com/about.php> (defining a Googlenope as a word or a phrase that returns no results when searched for on Google); see also Gene Weingarten, *Zero-Based Journalism: You can find just about anything on Google. Except this*, WASH. POST, May 27, 2007, (emphasizing how rare it is to perform a Google search that leads to no results).

²²⁹ Searches that are both highly specific and database-restricted could yield a low number of research results, however, new legal researchers are more likely to start by searching without choosing a database.

sources, followed by a structured research assignment with questions designed to expose students to the basic bibliographic sources required for the assignment.²³⁰ The information literacy paradigm might flip these steps, so that the professor first sends students to research a problem based on a brief discussion of what they need, without any direction about which resources to use or how to use them. The professor then brings the students back to class to evaluate the results. The ensuing discussion would then involve an analysis of their research results that includes categorization and evaluation of the different types of sources they found, as well as a review of their search techniques and evaluation of various resources.

Thus, the introduction to legal sources comes in the context of research already done, and the students' existing information literacy is both leveraged and increased through a detailed discussion of what their attempts at research uncovered. The next round of research will be marked by refined search terms, increased awareness of legal authority, and each round of research will be accompanied by an increase in knowledge, efficiency, and evaluation.

This is only one example of the many ways that information literacy principles can and should be implemented in the classroom. The end result, though, is a paradigm that is more fluid and allows new researchers to assess their own level of information literacy. Survey Question 14 is a good example of this.²³¹ This question asked, more or less, how the respondents would approach a list of Google-type results after conducting a basic search.²³² The overwhelming majority of respondents (60.6%) said that they would "skim through the first few pages of results, click on those that appear to be most relevant and credible, and skim the most relevant passages of each of those sources."²³³ This is probably the best available approach for a mid-range to highly-competent researcher who has experience and a high comfort level in the discipline.

However, there is a better answer for a researcher who is new to the discipline. Here, the best answer will depend on the level of legal information literacy of the researcher. The higher the level of information literacy, the less engagement the researcher needs to have with each result; the most competent, most efficient legal researcher can skim both the results list and the sources themselves as part of the evaluation process.²³⁴ What we

²³⁰ See Margolis & DeJamatt, *supra* note 9, at 101–03. The organization of most legal research textbooks reflect this approach. See, e.g., SLOAN, *supra* note 33, at 74–76.

²³¹ SURVEY RESULTS, § II, at Question 14.

²³² *Id.*

²³³ *Id.*

²³⁴ For example, a novice legal researcher working on an employment law project may need to read many sources to understand the different types of claims and sources of law, the terms of art, and the nuances that vary by jurisdiction. An experienced, highly literate practicing attorney, already familiar

should be trying to do is increase the researcher's ability to make these types of evaluations so that she can streamline the way she reviews the results for maximum efficiency.

The next wave of legal research instruction requires several actions on the part of those who teach it. First, we must embrace the abstract idea that our goal is not to teach about the steps of the research process or the identification of certain specific sources, but is to increase the legal information literacy of our students. This requires that we let go of the old way of thinking and recognize that students no longer need to be taught how to find the law, but what to do with the legal sources that they can easily get their hands on. This change may be daunting and overwhelming, but necessary, and will provide us with a more fluid, transferable approach that incoming law students are ready to embrace.

VI. CONCLUSION

The current method of legal research instruction, which is rooted in both bibliographic and process-based instruction, is already waning in utility and may soon be moot. In order to transition to a research environment that is primarily electronic, and a new generation of law students who are digital natives, we need to rethink how we teach and assess legal research. Incorporating information literacy into our legal research instruction will help us do just that.

By reframing the goal of legal research instruction to increasing the information literacy (specifically, the *legal* information literacy) of our students, we will be able to leverage the research skills they already possess and instill in them skills that are transferable to the legal research tools of tomorrow. Today's students need less instruction in how to *find* the law and more instruction in *assessing and evaluating* the sources they find. Because finding is no longer an issue, there is no "right" process that all researchers should follow.

Instead, we should take what we know—that legal research technology is ever-changing, that students arrive at law school with a wide range of research practices and habits, and that today's researchers will have little trouble finding legal information—and begin to develop methods of research instruction that result in an increased level of legal information literacy, no matter the students' starting points.

with the area of law and terms of art used, may be able to skim case squibs to find a source she needs to answer a specific research question in the field.