

Using Information Literacy to Prepare Practice-Ready Graduates

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I. INTRODUCTION

Today's law graduates find themselves entering a world of law practice dominated by senior practitioners who grew up and entered law practice in a very different technological environment than the one that developed at the end of the twentieth century.¹ There is a gap in the way members of these generations use technology, particularly in the degree to which technology is integrated into the day-to-day practice of law.² This poses a great challenge to educators striving to prepare new graduates to enter the profession with the set of competencies necessary for the current practice of law.

Recent law graduates are mostly members of the millennial generation, who are generally technologically savvy and have grown up as “digital natives” who do not remember a time before the existence of interactive digital media.³ They grew up writing email, sending texts, reading on screens, constantly connected, aware of the rapid changes in technology, and able to easily assimilate these changes into their lives.⁴ Members of this generation are comfortable with the idea of using social media in both their personal and professional lives.⁵ Like others of their generation,

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¹ See Margaret Thornton, *The Flexible Cyborg: Work-Life Balance in Legal Practice*, 38 SYDNEY L. REV. 1, 12 (2016); Brittany Stringfellow Otey, *Millennials, Technology, and Professional Responsibility: Training A New Generation in Technological Professionalism*, 37 J. LEGAL PROF. 199, 202–03 (2013) [hereinafter Otey, *Millennials*].

² See Brittany Stringfellow Otey, *Buffering Burnout: Preparing the Online Generation for the Occupational Hazards of the Legal Profession*, 24 S. CAL. INTERDISC. L.J. 147, 153–54 (2014) [hereinafter Otey, *Buffering Burnout*].

³ Otey, *Millennials*, *supra* note 1, at 204.

⁴ *Id.* at 202–03.

⁵ Glen M. Vogel, *A Review of the International Bar Association, LexisNexis Technology Studies, and the American Bar Association's Commission on Ethics 20/20: The Legal Profession's Response to the Issues Associated with the Generational Gap in Using Technology & Internet Social Media*, 38 J. LEGAL PROF. 95, 96–97 (2013).

millennial lawyers assume that technology is and will continue to be an integral part of their careers.

Lawyers further along in their careers are from the Baby Boom generation and Generation X, and have a more tentative relationship with technology.⁶ Most of those in control in law firms and other law-practice settings are digital immigrants, certainly familiar with electronic research and communication, but not conversant with it in the same way as digital natives.⁷ Lawyers from these generations remember a time before technology was so ubiquitous, and are slower to embrace new technological developments. They are certainly aware of technology, and use it, but are often suspicious of newer technologies and what they have to offer.⁸

These more senior generations of lawyers, unlike millennials, do not always assume that using technology will lead to better, faster ways of doing things.⁹ They learned legal research almost exclusively through books, and learned legal writing in a time before current technologies changed the potential for more flexible forms of legal analysis. As a result, they tend to think of non-digital methods as the better methods, with digital technologies being interlopers that cannot surpass the effectiveness of the older methods.¹⁰ While they have adopted some new technologies, many lawyers, especially older ones, have been slow to understand and accept the dramatic changes technology has brought to law practice. Some believe technology does not facilitate the practice of law.¹¹ When they do use technology, they often use it by electronically replicating the way they have always done things, such as using online digests for legal research rather than relying on more complex search algorithms.¹² Most lawyers recognize that increasing use of technology is inevitable, but do not always know what that means for the future of law practice.

The legal education of the current generation of law students occurs in a very different environment than that of those who graduated ten or more

⁶ See Otey, *Millenials*, *supra* note 1, at 233.

⁷ Thornton, *supra* note 1, at 12 (noting the gap in use of technology between Millennials and older generations of lawyers).

⁸ See Otey, *Millenials*, *supra* note 1, at 233.

⁹ *Id.*

¹⁰ See Julie Spanbauer, *Mind the Gap: Teaching Research as a Fluid, Ever-Present Concept in the First-Year Legal Research and Writing Classroom*, 66 MERCER L. REV. 651, 658–59 (2015) (discussing resistance to legal research technologies).

¹¹ Timothy J. Toohey, *Beyond Technophobia: Lawyers' Ethical and Legal Obligations to Monitor Evolving Technology and Security Risks*, 21 RICH. J.L. & TECH. 9, 1 (2015).

¹² Ellie Margolis & Kristen Murray, *Say Goodbye to the Books: Information Literacy as the New Legal Research Paradigm*, 38 U. DAYTON L. REV. 117, 123–124 (2012) [hereinafter Margolis & Murray, *Say Goodbye to the Books*].

years ago. Today's students do not remember a time when research could only be done in books, when the only way to access cases was through a digest, when near-instantaneous access to information did not exist.¹³ They are accustomed to the constant connectivity provided by mobile devices, working most often on laptops, tablets and smartphones but rarely on desktop computers.¹⁴ For this generation, the practice of law will be largely digital—conducting research online, creating digital documents, conveying them electronically through e-filing, email and other methods, using office management software, and other new technology yet to be developed.

At the same time that technology has been changing law practice, the legal market has been changing, with an increasing expectation that new law school graduates will come to their first jobs with a skill set that allows them to hit the ground running. As law firm structures have changed and job prospects have declined, calls for “practice-ready” law graduates have steadily increased over the last two decades.¹⁵ The pressure for law schools to prepare “practice-ready” graduates has grown with the adoption of new ABA accreditation standards providing that schools require experiential courses for graduation, and recommending that schools develop programs to “develop practice-ready lawyers.”¹⁶

The challenge law schools face is how to prepare graduates to be “practice-ready” when the nature of practice is shifting and changing with such rapidity, and when more senior practitioners are at least somewhat resistant to these changes.¹⁷ New graduates are likely to encounter a divide between their tech-heavy lives and the less technological world of those they are working for.¹⁸ When new lawyers enter practice, expected to be

¹³ See generally Julie Spanbauer, *Mind the Gap: Teaching Research as a Fluid, Ever-Present Concept in the First-Year Legal Research and Writing Classroom*, 66 MERCER L. REV. 651, 657–59 (2015); Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 117–18.

¹⁴ Otey, *Buffering Burnout*, *supra* note 2, at 154.

¹⁵ See Steven C. Bennett, *When Will Law School Change?*, 89 Neb. L. Rev. 87, 108 (2010); Sarah Valentine, *Flourish or Founder: The New Regulatory Regime in Legal Education*, 44 J.L. & Educ. 473, 474 (2015) [hereinafter Valentine, *Flourish or Founder*]; Gary S. Gildin, *Practice-Ready Legal Education: The Four New Demands Law Schools Must Satisfy*, Pa. Law., May–Jun. 2015, at 33, <https://dickinsonlaw.psu.edu/sites/default/files/Gildin-Practice-Ready-Legal-Education.pdf>.

¹⁶ See A.B.A., STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 2014–2015 15–25 (2014) [hereinafter ABA STANDARDS]; Robert J. Conklin, “Practice Ready Graduates”: A Millennialist Fantasy, 31 TOURO L. REV. 75, 84 n.28 (2014) (noting the ABA House of Delegates Recommendation 10B, urging law schools to implement programs to develop practice ready lawyers).

¹⁷ See Valentine, *Flourish or Founder*, *supra* note 15, at 488–89.

¹⁸ *Id.*

“practice-ready” from day one, they will have to be able to use both old and new technologies to carry out the tasks of lawyering and be able to bridge the gap between them, conversant in both languages and able to adapt to the rapidly changing world of law practice.

Legal research and legal writing are two areas in which this gap can be seen most acutely. What constitutes “cutting edge” legal research and writing skills is almost ever-changing; these are also areas where senior practitioners are likely to feel wedded to the methods and technologies they learned and first encountered in practice. The first step in helping law students and new lawyers bridge the technology gap is to shift from thinking about research and writing as fixed skills, and to focus instead on self-learning and skill development, so that new lawyers can be flexible and adapt as the technological landscape continues to change. Thinking about these skills in terms of “information literacy” can help both professionals and educators take this first step.

This article serves as an attempt to find a new way to think about how to prepare law students to be “practice-ready” for the legal research and writing tasks they will face as they enter law practice, and how to equip them with the skills they need to communicate with older generations of lawyers while adapting to new and evolving technologies. In essence, recent law school graduates must be “bilingual” ambassadors of technology, simultaneously able to communicate with lawyers who may not be conversant in, or even understand, the new technologies taking over law practice and able to use those new technologies to be effective lawyers.¹⁹ Part II discusses the current state of law practice, the idea of practice-readiness, and the role legal research and writing skills play in debates surrounding both of these. Part III proposes that the concept of information literacy can allow legal educators to reframe the way we think about what it means to possess practice-ready legal research and writing skills in a way that resolves some of the concerns about practice-readiness itself.

II. BACKGROUND

The United States legal market and the state of legal education have both shifted and changed in the early part of the twenty-first century. Technology has been a disruptive force in law practice, particularly in the areas of legal research and legal writing. At the same time as these changes are occurring, the call for experiential learning in law school and the

¹⁹ See Otey, *Millennials*, *supra* note 1, at 234–235 (discussing the need for finding a common vocabulary for communicating about technology).

production of “practice-ready” law graduates has grown increasingly loud.²⁰ At the intersection of these two developments lies a challenge: how do we prepare “practice-ready” law students when the practice is changing so quickly?

Because law practice is so multi-faceted, specialized, and ever-changing, it is difficult to pin down a particular skill set that lives up to the “practice-ready” moniker. This complexity is exacerbated by the rapid changes brought by technology in the context of a profession slow to adopt change. New law graduates are walking into a minefield in which they may be expected to be in command of traditional legal skills, modern technology, or both. Any understanding of practice-ready research and writing skills must take into account the current state of flux in the way lawyers research and write legal documents.

The changes in legal education are the culmination of years of discussion of the need for law schools to focus more on practical skills, including the Carnegie Report and the MacCrate Report.²¹ The current response to the call for practice-ready graduates has been to suggest that law schools should provide students with more experiential opportunities.²² The new ABA Standard 303(a)(3) provides that law schools must require graduating students to complete “one or more experiential course(s) totaling at least six credit hours.”²³ This standard grew out of the ABA House of Delegates Report 10B from the 2011 Annual Meeting of the ABA that law schools implement programs “intended to develop practice-ready lawyers including, but not limited to, enhanced capstone and clinical courses”²⁴ These requirements presume that there is a discrete set of skills which, if only clearly identified, can be taught so that new law school graduates can walk into their jobs prepared to handle the requirements of law practice. What these discussions are often missing, however, is a real understanding of

²⁰ See, e.g., Condlin, *supra* note 16, at 75–76.

²¹ Andrea Boyack, *Get “PRACTICE READY.” Get set. Go!*, PRAWFSBLAWG (Aug. 27, 2015, 11:29 AM), <http://prawfsblawg.blogspot.com/2015/08/get-practice-ready-get-set-go.html>; see also WILLIAM M. SULLIVAN ET AL., CARNEGIE FOUND. FOR ADVANCEMENT OF TEACHING, EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007) [hereinafter CARNEGIE REPORT]; ROBERT MACCRATE ET AL., A.B.A., REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP (1992) [hereinafter MACCRATE REPORT].

²² *Id.*; ABA STANDARDS, *supra* note 16, at 16.

²³ ABA STANDARDS, *supra* note 16, at 16.

²⁴ A.B.A., DAILY JOURNAL: 2011 ANNUAL MEETING 18 (2011) [hereinafter ABA DAILY JOURNAL], http://www.americanbar.org/content/dam/aba/administrative/house_of_delegates/resolutions/2011_hod_annual_meeting_daily_journal_FINAL.authcheckdam.pdf.

what “practice-ready” means, particularly in a time where many aspects of legal work are in flux.

This section considers, in turn, how modern practice—in particular, legal research and writing—have changed and how the call for “practice ready” graduates has evolved.

A. *The Realities of Modern Law Practice*

That the legal profession is slow to adopt new technology is widely acknowledged.²⁵ Bar journals are full of articles discussing lawyers’ responses to the rapid pace of change.²⁶ Indeed, the legal profession has the reputation of being conservative and slow to change in general.²⁷ Many lawyers reject change because they believe it is foreign to the concepts of precedent and *stare decisis* inherent in the law.²⁸ Others are willing, but struggle with new technologies.²⁹ As a result, the changes in legal research and writing have been slow.³⁰

²⁵ See Otey, *Millennials*, *supra* note 1, at 201; A.B.A., *Lawyers Slow To Adopt Cutting-Edge Technology*, A.B.A. J. (Aug. 29, 2008, 06:53 PM), http://www.abajournal.com/news/article/lawyers_slow_to_adopt_cutting_edge_technology/; Cliff Gilley, *Why Are Lawyers Slow to Adopt Technology?*, QUORA (Dec. 1, 2015), <https://www.quora.com/Why-are-lawyers-slow-to-adopt-technology/>; Mary Juetten, *The Future of Legal Tech: It’s Not As Scary As Lawyers Think*, FORBES (Feb 19, 2015, 10:00 AM), <http://www.forbes.com/sites/maryjuetten/2015/02/19/legal-tech-or-tech-legal/#7a6b1179644d> (noting that adoption of technology in the legal field is slow); Denise Magnell, *Legal Industry Slowly Lifts the Bar to Tech Adoption*, BOS. BUS. J. (Nov. 5, 2007, 12:00 AM), <http://www.bizjournals.com/boston/stories/2007/11/05/focus3.html?b=1194238800%25255e1545436>.

²⁶ E.g., Jennie Bricker, *Where No One Has Gone Before Practicing Law in the Digital Age*, OR. ST. B. BULL., Aug.–Sep. 2015, at 18; Miles J. LeBlanc, *Resistance Is Futile One Author’s Take on the Death and Rebirth of the Legal Profession*, 78 TEX. B.J. 856, 856–57 (2015) (reviewing BENJAMIN H. BARTON, *GLASS HALF FULL: THE DECLINE AND REBIRTH OF THE LEGAL PROFESSION* (2015)).

²⁷ Melissa E. Darigan, *Facing Up to Change*, R.I. B.J., July–Aug. 2015, at 3, 4 (“Lawyers as a whole are notorious for being skeptics and slow to react.”).

²⁸ Nelson P. Miller & Derek S. Witte, *Helping Law-Firm Luddites Cross the Digital Divide—Arguments for Mastering Law-Practice Technology*, 12 SMU L. REV. 113 (2009); Toohay, *supra* note 11 at 1.

²⁹ Joseph D. Lawson, *What About the Majority? Considering the Legal Research Practices of Solo and Small Firm Attorneys*, 106 LAW LIBR. J. 377, 389 (2014).

³⁰ See Nicole Black, *Legal Loop: Lawyers, Technology and a Light at the End of the Tunnel*, THE DAILY RECORD (Nov. 4, 2013), <http://nydailyrecord.com/2013/11/04/legal-loop-lawyers-technology-and-a-light-at-the-end-of-the-tunnel/> (lamenting the slow adoption of technology and asserting that “many lawyers continue to practice law as if it were still 1999”).

Nonetheless, change is occurring, and while some lawyers are resistant to technology and even take pride in rejecting it, others are early adapters of each new development.³¹ Regardless of their preferences, lawyers will have to adapt to new technology as part of their ethical duty of competent representation.³² In 2012, the ABA revised the comments to Rule 1.1 of the ABA Model Rules of Professional Conduct to explicitly recognize the effect of technological developments on law practice.³³ The new Comment 8 now suggests that staying current in the law and its practice includes staying abreast of “the benefits and risks associated with relevant technology”³⁴ This sends a strong signal that lawyers should, at a minimum, be aware of how changing technology is influencing the practice of law.

Technology is gradually, but inevitably, infiltrating every area of law practice.³⁵ The ABA has developed a Legal Technology Resource Center to address the multiple ways technology affects law practice.³⁶ The changes to legal research and writing have been profound. Legal information has been digitized and placed in searchable online databases.³⁷ The sophistication of word processing and electronic delivery of information facilitates legal communication in new and different ways.³⁸ Lawyers are starting to employ techniques such as hyperlinked citations and

³¹ Toohey, *supra* note 11, at 1; *see also* Katerina P. Lewinbuk, *There Is No App for That: The Need for Legal Educators and Practitioners to Comply with Ethical Standards in the Digital Era*, 24 U. FLA. J.L. & PUB. POL’Y 321, 354–55 (2013) (suggesting that lawyers will embrace technological advances through education).

³² *See* MODEL RULES OF PROF’L CONDUCT r. 1.1 cmt. 8 (AM. BAR ASS’N 2015).

³³ *Id.*

³⁴ *Id.*

³⁵ *See* Ellie Margolis, *Is the Medium the Message? Unleashing the Power of E-Communication in the Twenty-First Century*, 12 LEGAL COMM. & RHETORIC: JALWD 1, 1 (2015) [hereinafter Margolis, *Medium*].

³⁶ Legal Technology Resource Center, *About Us*, A.B.A. (2016), http://www.americanbar.org/groups/departments_offices/legal_technology_resources/about_us.html.

³⁷ *See* Ellie Margolis, *Surfin’ Safari—Why Competent Lawyers Should Research on the Web*, 10 YALE J.L. & TECH. 82, 85 (2007); Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 117–18; Susan C. Wawrose, *What Do Legal Employers Want to See in New Graduates? Using Focus Groups to Find Out*, 39 OHIO N.U.L. REV. 505, 508 (2013).

³⁸ Kristen Tiscione, *The Rhetoric of E-Mail in Law Practice*, 92 OR. L. REV. 525, 526–28 (2013); Joe Dysart, *Catch up with tech or lose your career, judges warn lawyers*, A.B.A. J. (Apr. 1, 2014), http://www.abajournal.com/mobile/mag_article/catch_up_with_tech_or_lose_your_career_judges_warn_lawyers; Debora J. Merritt, *Why Has Law Practice Changed?*, LAW SCHOOL CAFE (Dec. 8, 2013), <http://www.lawschoolcafe.org/thread/why-has-law-practice-changed/>; Daniel Sockwell, *Writing A Brief for the iPad Judge*, COLUM. BUS. L. REV. (Jan. 14, 2014), <http://cblr.columbia.edu/archives/12940>.

embedded images in court documents, although these techniques have not been fully embraced.³⁹ The changes to both legal research and legal communication brought on by computer technology have been rapid and comprehensive.⁴⁰

Lawyers operate in an increasingly, and almost exclusively, digital world as they adapt to these changes and incorporate them into law practice.⁴¹ In the early phases of the digital revolution, technology was used to transfer the print legal world to an online environment.⁴² Early electronic legal research platforms, which the legal profession greeted with distrust, mimicked the legal organization found in the print world.⁴³ As word processing technology began to take over from the typewriter, legal documents produced with word-processing programs looked identical to those produced by older technologies.⁴⁴ Technology was used primarily to create familiar documents more easily, rather than to re-envision the forms those documents could take.⁴⁵ As digital technologies improved and proliferated, lawyers have moved further away from those traditional forms, developing new approaches to research and writing. At the same time, older technologies have not gone away, and lawyers of different generations continue to use a blend of older and newer technologies. An understanding of just how research and writing has changed is an important first step in attempting to identify practice-ready skills.

³⁹ See Margolis, *Medium*, *supra* note 35, at 28.

⁴⁰ Katrina June Lee et al., *A New Era: Integrating Today's "Next Gen" Research Tools Ravel and Casetext in the Law School Classroom*, 41 RUTGERS COMPUT. & TECH. L.J. 31, 38–39 (2015) (noting the rapid proliferation of new legal research technologies); Margolis, *Medium*, *supra* note 35, at 2 (noting the changes brought by new reading and writing technologies).

⁴¹ See Margolis, *Medium*, *supra* note 35, at 2–3.

⁴² *Id.* at 2.

⁴³ Robert C. Berring, *Legal Research and the World of Thinkable Thoughts*, 2 J. APP. PRAC. & PROCESS 305, 312 (2000) [hereinafter Berring, *Legal Research*]; Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 123.

⁴⁴ Dennis Baron, *A Better Pencil: Readers, Writers, and the Digital Revolution* xiii (2009) (noting that computers achieved “the initial impact by allowing writers to produce familiar documents”).

⁴⁵ Elizabeth G. Porter, *Taking Images Seriously*, 114 COLUM. L. REV. 1687, 1700 (2014) (indicating that technology has been used to reinforce text-centered legal discourse, rather than to revolutionize legal communication).

1. How Research Has Changed

The legal profession is in the midst of a major paradigm shift in legal research, with research platforms and search protocols evolving daily.⁴⁶ For many decades, the process of legal research remained largely unchanged, rooted in a bibliographic approach that reflected the print publication of legal materials.⁴⁷ However, as legal research software has evolved and legal content migrated online, it is now impossible to talk about legal research from a purely bibliographic perspective. The organization of legal materials in digital databases is getting further and further away from the world of books it once replicated.⁴⁸ Instead of digests, indexes and other finding tools, lawyers conduct most of their research electronically, typing requests into a search box.⁴⁹

The changes in legal research have come as a result of the evolution of legal publishing, and new developments in the methods of accessing both legal and nonlegal information. For most of the last two centuries, the world of legal publishing was relatively static and, as a consequence, so was legal research.⁵⁰ Legal information was published in a stable, self-contained system, controlled largely by the West Publishing Company.⁵¹ 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 an index, and the process of legal research was relatively straightforward.⁵²

⁴⁶ Ellie Margolis & Kristen Murray, *Mind the Gap*, 20 LEGAL WRITING: J. LEGAL WRITING INST. 25, 25 (2015).

⁴⁷ *Id.*

⁴⁸ See Kari Mercer Dalton, *Bridging the Digital Divide and Guiding the Millennial Generation's Research and Analysis*, 18 BARRY L. REV. 167, 180 (2012) (discussing the nonlinear, nonbibliographic nature of new legal research platforms).

⁴⁹ Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 119.

⁵⁰ See Robert C. Berring, *Legal Information and the Search for Cognitive Authority*, 88 CAL. L. REV. 1673, 1675 (2000).

⁵¹ *Cf. id.* at 1679–80.

⁵² See Ellie Margolis, *Authority Without Borders: The World Wide Web and the Delegalization of Law*, 41 SETON HALL L. REV. 909, 929–30 (2011) [hereinafter Margolis, *Authority Without Borders*] (describing 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 & Anne Enquist, *Just Research*, 46–48 (3rd ed. 2011); Amy E. Sloan, *Basic Legal Research: Tools and Strategies*, 51, 74–76, 206–09 (5th ed. 2012).

Whether searching for secondary sources, statutes, or cases, the process of accessing the information was relatively similar.⁵³ 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.⁵⁴ 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.⁵⁵ 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.⁵⁶

In addition to the research process being similar across sources, the organization of print materials is neatly separated by jurisdiction and type of source (cases, statutes, etc.).⁵⁷ 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. 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 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 easily identifiable means of locating materials and understanding what they were.⁵⁸

When legal information became "digitized" and migrated online, that landscape changed and destabilized.⁵⁹ While early forms of electronic research may have involved the transplanting of print research techniques into the electronic format, more recent technologies, combined with major changes in the provision of legal information, have wrought fundamental changes in the way researchers seek and evaluate relevant information.⁶⁰

⁵³ See Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 122.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Margolis, *Authority Without Borders*, *supra* note 52, at 925. Even a source like a regional reporter contains only cases, even though those cases may be from multiple jurisdictions.

⁵⁸ *Id.* at 911; see also F. Allan Hanson, *From Key Numbers to Keywords: How Automation Has Transformed the Law*, 94 *LAW LIBR. J.* 563, 571 (2002).

⁵⁹ Berring, *Legal Research*, *supra* note 43, at 305–06.

⁶⁰ See, e.g., *id.* at 312–14; Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Paradigm Shift*, 93 *LAW LIBR. J.* 285, 286–289 (2001); Ian Gallacher,

Legal research is now a function of search algorithms, user interaction, and other technology-based search capabilities.⁶¹

The search engine is now the vehicle through which material in online databases is accessed.⁶² While there are individual differences in search engines, the basic function is the same. The researcher enters search terms into a search box, which then uses an algorithm to retrieve results matching those search terms.⁶³ Unlike print research, the organization of legal information accessed via electronic research technology is not readily apparent, so whether using a fee-paid service, or free online website, the legal researcher is likely to conduct research without the filter provided by the traditional print legal indexing systems.⁶⁴

While in some instances, the development of new technology pushes the old technology out, this is not the case with legal research technology. Even as Westlaw and Lexis continue to evolve, and new products such as Bloomberg Law, Ravel Law, and Casetext continue to proliferate, the books are still published, and previous generations of search products still exist. The degree to which new products have been adopted by law firms and other legal practice groups varies widely.⁶⁵ Almost all legal employers subscribe to electronic legal research services, while fewer and fewer keep their print subscriptions active (a switch from when electronic legal research debuted and only the largest organizations and firms subscribed).⁶⁶ Thus, some lawyers continue to research in books, though increasingly few. Many experienced practitioners are not versed in the newer research products and speak a research language based on older, sometimes obsolete, technology; some are highly skeptical of or outright reject newer methods. This is the practice environment into which new law graduates must enter.

Forty-Two: The Hitchhiker's Guide to Teaching Legal Research to the Google Generation, 39 AKRON L. REV. 151, 163–67 (2006); Katrina Fischer Kuh, *Electronically Manufactured Law*, 22 HARV. J.L. & TECH. 223, 226 (2008); Richard J. Ross, *Communications Revolutions and Legal Culture*, 27 LAW & SOC. INQUIRY 637, 640–46 (2002).

⁶¹ See Lee, et al., *supra* note 40, at 35.

⁶² Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 124.

⁶³ See Bast & Pyle, *supra* note 60, at 293–95.

⁶⁴ 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, 932 (2008) (noting the “growing resistance” to using subject indexes when conducting legal research).

⁶⁵ See generally SUSAN NEVELOW MART ET AL., ALL-SIS TASK FORCE ON IDENTIFYING SKILLS AND KNOWLEDGE FOR LEGAL PRAC., A STUDY OF ATTORNEYS' LEGAL RESEARCH PRACTICES AND OPINIONS OF NEW ASSOCIATES' RESEARCH SKILLS (2013), <http://www.aallnet.org/sections/all/storage/committees/practicetf/final-report-07102013.pdf>.

⁶⁶ See M.P. McQueen, *A New Look for Law Libraries: Fewer Books, More Tech*, THE AMERICAN LAWYER (June 29, 2015).

2. How Writing Has Changed

As with legal research, the digital revolution has brought rapid changes to writing after centuries of relative stability.⁶⁷ Legal writing has changed both in the means of producing it and in the forms of the writing itself.⁶⁸ Lawyers can produce and deliver documents more quickly and easily than ever before in history. No longer are briefs created by writing out analysis in longhand followed by painstaking transfer to print via a typewriter. The days of cumbersome word processing programs and slow printers have come and gone. Today's technology allows the writer to open a window, or an app, create a document on-screen, and instantly deliver it via email, e-filing, or other electronic transfer. Digital technology creates an entirely different writing experience than existed previously.⁶⁹

Prior to the development of current digital technologies, the biggest impact on the process of writing was the typewriter.⁷⁰ Throughout the nineteenth century, legal documents were handwritten, drafted by lawyers and meticulously copied by scribes.⁷¹ The typewriter, which lawyers helped develop in the late nineteenth and early twentieth century, allowed for faster and more professional creation of legal documents.⁷² Even with the typewriter, however, legal analysis was still handwritten, and then transferred to type by third parties, most often secretaries.⁷³ It was during this time that the formats for the office memo and legal brief were entrenched, and they did not change substantially over the ensuing hundred years.⁷⁴

The transition to digital technology meant that legal writers were creating text and typing simultaneously. The process of constructing meaning

⁶⁷ See STEVEN STARK, *WRITING TO WIN: THE LEGAL WRITER* xiv-xv (1999) (noting rapid changes to writing technology at end of twentieth century compared to previous centuries).

⁶⁸ See Margolis, *Medium*, *supra* note 35, at 1 (acknowledging that “[t]he dramatic changes that technology has brought to the world of legal research and writing are well documented” and that “[t]he changes to both writing and reading brought on by computer technology have been rapid and comprehensive”).

⁶⁹ See generally M.H. Hoeflich, *From Scrivener to Typewriters: Document Production in the Nineteenth-Century Law Office*, 16 GREEN BAG 2D 395 (2013).

⁷⁰ Tiscione, *supra* note 38, at 527 (describing the difference between composing on a keyboard and by hand).

⁷¹ Hoeflich, *supra* note 69, at 397.

⁷² *Id.* at 402–03.

⁷³ *Id.* at 406.

⁷⁴ See Kirsten K. Davis, “*The Reports of My Death Are Greatly Exaggerated*”: Reading and Writing Objective Legal Memoranda in a Mobile Computing Age, 92 OR. L. REV. 471, 498–99 (2013).

through writing⁷⁵ is more immediate when there is no barrier between the writer and the text, which appears immediately on a screen as if it is a final product. This shorter “distance” from thought to text changes the writer’s relationship with the subject, so the writing equipment itself changes the thinking process.⁷⁶ Digital natives, who have grown up composing text almost exclusively on screens, thus have a very different experience with the writing process than lawyers who began practicing law in the twentieth century.

Because digital technologies create a closer connection between writer and text, and make editing a much simpler prospect, the writer has more freedom to write longer texts and less fear of making mistakes that cannot be corrected, reducing writer’s block.⁷⁷ The ability to write more quickly and easily allows the writer to quickly capture complex thoughts and write longer, more complex sentences.⁷⁸ Seeing the text “on screen” also helps the writer to distance herself and read with a more critical eye.⁷⁹ This, coupled with the ease of deleting and moving text, makes it more likely that the writer will make instantaneous changes.⁸⁰ With less at stake, it is at least possible that the writer will not think through the analysis as thoroughly as she might have when making corrections was more cumbersome. This could create friction between older attorneys who are more accustomed to thinking of writing as relatively fixed, and digital natives who are more comfortable with unpolished drafts.⁸¹

⁷⁵ New Rhetoric theory posits that the process of research, reading, and writing construct knowledge. For a fuller explanation, see, for example, Linda L. Berger, *Applying New Rhetoric to Legal Discourse: The Ebb and Flow of Reader and Writer, Text and Context*, 49 J. LEGAL EDUC. 155, 156–57 (1999). See also Susan DeJarnatt, *Law Talk: Speaking, Writing and Entering the Discourse of Law*, 40 DUQ. L. REV. 489 (2002); Ellie Margolis & Susan DeJarnatt, *Moving Beyond Product to Process: Building a Better LRW Program*, 46 SANTA CLARA L. REV. 93, 98–99 (2005) (discussing influence of rhetoric and composition theory on legal writing pedagogy focusing on the writing process).

⁷⁶ See Nicholas Carr, *Is Google Making Us Stupid?*, THE ATLANTIC (July–Aug. 2008), <http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/2> (discussing the Internet and its effects on reading and peoples’ thought processes).

⁷⁷ Tiscione, *supra* note 38, at 527.

⁷⁸ *Id.* (citing Luuk Van Waes & Peter Jan Schellens, *Writing Profiles: The Effect of the Writing Mode on Pausing and Revision Patterns of Experienced Writers*, 35 J. PRAGMATICS 829, 833 (2003)).

⁷⁹ *Id.* at 527–28.

⁸⁰ *Id.* at 528.

⁸¹ See, e.g., Ann Sinsheimer & David J. Herring, *Lawyers at Work: A Study of the Reading, Writing, and Communication Practices of Legal Professionals*, 21 LEGAL WRITING: J. LEGAL WRITING INST. 63, 104 (2016) (presenting results of study showing new associates write several drafts before presenting them to supervisors).

Outside of the legal context, electronic writing and communication has tended to be more informal than traditional legal writing. While older generations are also increasing their use of informal writing, digital natives are doing so at a much faster rate.⁸² This generation has grown up writing digital text in a variety of media. They have spent their lives emailing, texting, tweeting—in other words, writing in short formats.⁸³ Research shows that teenagers “write more than any generation has since the days when telephone calls were rare and the mailman rounded more than once a day.”⁸⁴ It is clear that the trends towards more informal and shorter writing will increasingly permeate the legal profession as this generation moves deeper into the legal field, and tension between formal and informal approaches will continue.⁸⁵

Even as digital technology has made it easier to produce longer, more complex documents, the onset of mobile technologies has led to a growth of shorter, more informal writing.⁸⁶ Increasingly over the last twenty years, lawyers have shifted to communicating through email and other mobile platforms.⁸⁷ Lawyers are taking advantage of mobile technology applications for legal research, writing, and document review.⁸⁸ Writing on mobile devices, combined with the increased use of email, has led lawyers

⁸² See Lindsey P. Gustafson, *Texting and the Friction of Writing*, 19 LEGAL WRITING: J. LEGAL WRITING INST. 161, 165 (2014) (highlighting dominance of texting among younger generations correlating to an increase in informal writing).

⁸³ See *id.*

⁸⁴ *Id.* at 166 (quoting Rosalind S. Helderman, *Click by Click, Teens Polish Writing: Instant Messaging Teaches More than TTYL and ROFL*, WASH. POST, May 20, 2003, at B1).

⁸⁵ See, Sinsheimer & Herring, *supra* note 81 at 78 (noting that study subject scrutinized email carefully to avoid disapproval of more senior partner).

⁸⁶ See Gustafson, *supra* note 82, at 165–67 (discussing students’ growing preference for texting over all other forms of communication).

⁸⁷ See ROBERT B. DUBOSE, LEGAL WRITING FOR THE REWIRED BRAIN: HOW TO COMMUNICATE IN A PAPERLESS WORLD 2 (2010), http://www.texasbar.com/flashdrive/materials/managing_your_law_practice/Special_ManagingYourLawPracticeCLE_LegalWritingRewiredBrain_Dubose_FinalArticle.pdf; Kendra Huard Fershee, *The New Legal Writing: The Importance of Teaching Law Students How to Use E-Mail Professionally*, 71 MD. L. REV. ENDNOTES 1, 2 (2011) (citing Kristen Konrad Robbins-Tiscione, *From Snail Mail to E-Mail: The Traditional Legal Memorandum in the Twenty-First Century*, 58 J. LEGAL EDUC. 32, 32–33 (2008)) (asserting that “the most common mode of written communication used in law offices today is e-mail”).

⁸⁸ Davis, *supra* note 74, at 480–81; see also Ashley Hallene, *Top iPad Apps for Lawyers*, A.B.A. GP SOLO (2013), http://www.americanbar.org/publications/gp_solo/2013/march_april/top_ipad_apps_for_lawyers.html; Brennan Sharp & Steve Ravenscroft, *11 Must-Have Apps for Lawyers*, A.B.A. J., <http://www.abajournal.com/gallery/mobilelawyerapps/790> (last visited Nov. 10, 2016).

to communicate in shorter formats.⁸⁹ Because there is no established convention for these shorter means of writing legal analysis, lawyers who wish to use them have largely had to find their own way.⁹⁰

The move to digital law practice has led to a new form of legal writing—the email memo.⁹¹ The key feature of the email memo is that the lawyer sends legal analysis directly in the body of the email, rather than attaching a separate legal document.⁹² While some scholars have raised concerns about the rigor of analysis in the shorter, more informal email memo,⁹³ the inescapable fact is that email memos have become the predominant means of communicating analysis between lawyers.⁹⁴

In addition to new short form writing like email research summaries and legal analysis, many things are changing about more traditional forms of legal writing such as memoranda and briefs. Lawyers have started to recognize the value of document design, varying fonts and typeface to alter the traditional appearance of legal documents and make them more readable in electronic formats.⁹⁵ The increased use of small-screen mobile devices including phones and tablets has led to new ways of communication organization to make it easier for readers who scroll rather than turn pages.⁹⁶ Likewise, lawyers are starting to use shorter paragraphs, bullet points and other visual ways of separating concepts. Driven largely by preferences expressed by judges, many lawyers are beginning to include

⁸⁹ See Gustafson, *supra* note 82, at 165–67.

⁹⁰ See, e.g., Katrina June Lee, *Process over Product: A Pedagogical Focus on Email as a Means of Refining Legal Analysis*, 44 *CAP. U. L. REV.* 655, 655 (2016) (describing lawyers who graduated at turn of the century as “self-taught experts” in email communication).

⁹¹ See generally Charles Calleros, *Traditional Office Memoranda and E-mail Memos*, *In Practice and in the First Semester*, 21 *PERSP.: TEACHING LEGAL RES. & WRITING* 105, 105–06 (2013); Davis, *supra* note 74, at 482–84; Robbins-Tiscione, *supra* note 87, at 33–34; Tiscione, *supra* note 38, at 528–29.

⁹² See Calleros, *supra* note 91, at 105.

⁹³ Davis, *supra* note 74, at 486–89.

⁹⁴ Robbins-Tiscione, *supra* note 87, at 36; see also Sinsheimer & Herring, *supra* note 81, at 99 (providing results of recent study showing that new associates summarize research findings in email rather than writing formal memoranda).

⁹⁵ Margolis, *Medium*, *supra* note 35, at 16; see also MATTHEW BUTTERICK, *TYPOGRAPHY FOR LAWYERS* 180 (2010); Jason P. Steed, *Font Matters*, *FORMA LEGALIS* (May 25, 2016), <https://formalegalis.org/2016/05/25/font-matters/>; Ruth Anne Robbins, *Painting with Print: Incorporating Concepts of Typographic and Layout Design into the Text of Legal Writing Documents*, 2 *LEGAL COMM. & RHETORIC; JALWD* 108, 131–34 (2004).

⁹⁶ Margolis, *Medium*, *supra* note 35, at 18; Jason P. Steed, *5 Tips For Writing Briefs For Tablets*, *LAWYERIST* (Sep. 22, 2014), <https://lawyerist.com/76679/5-tips-writing-briefs-tablets/>.

hyperlinks for all citations in briefs and other court documents.⁹⁷ Lastly, more and more lawyers are incorporating images into legal documents, both to present factual information and legal analysis.⁹⁸ All of these new ways of doing things are driven by the possibilities created by new writing technologies.

The combination of all of these factors—the ease of creating professional looking documents, the simultaneous ability to write more complex thoughts more quickly and rise of multiple forms of informal writing, the different sense of audience, and the facility with writing on the go—will only increase as digital natives move into higher ranks of law practice. At the same time, older approaches have not disappeared. While it is unlikely that currently practicing lawyers are writing on typewriters, many use older word-processing software, such as WordPerfect.⁹⁹ While on its way out, the Blackberry is still in high use in many law firm settings.¹⁰⁰ Many lawyers remain cautious and conservative about changing traditional forms of writing, especially in court documents.¹⁰¹ New law school graduates, in order to be practice-ready, will have to be prepared to navigate these tensions.

B. *The Idea of Practice-Readiness*

The call to produce “practice-ready” graduates has become an increasingly prevalent part of the discussion on legal education. This comes in the wake of outspoken critiques of traditional pedagogy,¹⁰² calls

⁹⁷ See, e.g., Richard G. Kopf, *Top Ten Legal Writing Hints When the Audience is a Cranky Federal Trial Judge*, HERCULES & THE UMPIRE (Jun. 20, 2013), <https://wednesdaywiththedecentlyprofane.me/2013/06/20/top-ten-legal-writing-hints-when-the-audience-is-a-cranky-federal-trial-judge/>.

⁹⁸ See Steve Johansen & Ruth Anne Robbins, *Art-iculating the Analysis: Systemizing the Decision to Use Visuals as Legal Reasoning*, 20 LEGAL WRITING: J. LEGAL WRITING INST. 57, 81-82 (2015); Porter, *supra* note 48, at 1723.

⁹⁹ Jeff Bennion, *The Rage-Inducing Word Versus WordPerfect Debate*, ABOVE THE LAW (Jun. 10, 2014, 4:02 PM), <http://abovethelaw.com/2014/06/the-rage-inducing-word-versus-wordperfect-debate/>.

¹⁰⁰ Jeff Richardson, *2015 ABA Tech Survey Shows 60% of Attorneys Use an iPhone, 40% Use an iPad*, IPHONE J.D. (Aug. 17, 2015), http://www.iphonejd.com/iphone_jd/2015/08/2015-aba-tech-survey.html.

¹⁰¹ Cf. Calleros, *supra* note 91, at 105.

¹⁰² See, e.g., Peter Toll Hoffman, *Law Schools and the Changing Face of Practice*, 56 N.Y.L. SCH. L. REV. 203, 220–30 (2012); Peter S. Vogel, *The Future of Legal Education: Preparing Law Students to Be Great Lawyers*, 93 OR. L. REV. 893, 894 (2015); Cynthia L. Fountaine, *Dean Frank Wu on the Problems of Legal Education*, LAW DEANS ON LEGAL EDUCATION BLOG (Mar. 2, 2014), http://lawprofessors.typepad.com/law_deans/2014/03/

for change from legal employers,¹⁰³ and new standards issued by the ABA.¹⁰⁴ The traditional focus on doctrinal instruction and the Socratic method, with the goal of “thinking like a lawyer” has been supplemented, if not supplanted, by the idea that law schools ought to do more to prepare students to actually *be* lawyers.¹⁰⁵ Yet despite the increasing commitment to producing practice-ready graduates, legal educators and scholars have not engaged in much discussion of what “practice-ready” actually means in connection with the realities of law practice. In addition, although legal research and writing, fundamental skills for law practice, are a core part of every law school’s curriculum, these subjects have been largely left out of the “practice-ready” discussion, despite the fact that they are two areas in which new lawyers’ skills have drawn the sharpest critiques from members of the profession.¹⁰⁶ Legal research and writing are also areas where dramatic changes have already occurred and continue to be ripe with potential for innovative changes in practice.

dean-frank-wu-on-the-problems-of-legal-education.html.

¹⁰³ See, e.g., Steven C. Bennett, *When Will Law School Change?*, 89 NEB. L. REV. 87, 90 (2010) (“Law schools primarily produce one thing: graduates who—for the most part—plan to practice law in one or more fields, in connection with one or more institutions, for some period of time. Increasingly, critics and commentators, inside and outside academia, have suggested that law schools can perform that central function better.”); Sam Favate, *Law Schools Offering More Practical Skills Courses in Weak Job Market*, WALL ST. J. (Jul. 6, 2012 at 3:00 PM), <http://blogs.wsj.com/law/2012/07/06/survey-law-schools-offering-more-practical-skills-courses-in-weak-job-markek/>; Martha Neil, *NY State Bar Urges ABA to Encourage Law Schools to Focus on Educating ‘Practice Ready’ Attorneys*, A.B.A. J. (Aug. 5, 2011, 01:59 PM), http://www.abajournal.com/news/article/new_york_state_bar_urges_aba_to_strengthen_law_school_focus/.

¹⁰⁴ ABA STANDARDS, *supra* note 16, at 16.

¹⁰⁵ See, e.g., Sherri Lee Keene, *One Small Step for Legal Writing, One Giant Leap for Legal Education: Making the Case for More Writing Opportunities in the “Practice-Ready” Law School Curriculum*, 65 MERCER L. REV. 467, 468 (2014); Alex Berrio Matamoros, *Answering the Call: Flipping the Classroom to Prepare Practice-Ready Attorneys*, 43 CAP. U. L. REV. 113, 114 (2015); Lynnise Pantin, *Deals or No Deals: Integrating Transactional Skills in the First Year Curriculum*, 41 OHIO N. U. L. REV. 61, 61 (2014); Lisa Penland, *What a Transactional Lawyer Needs to Know: Identifying and Implementing Competencies for Transactional Lawyers*, 5 LEGAL COMM. & RHETORIC: JALWD 118, 118 (2008); Suzanne J. Schmitz & Alice M. Noble-Allgire, *Reinvigorating the 1L Curriculum: Sequenced “Writing Across the Curriculum” Assignments As the Foundation for Producing Practice-Ready Law Graduates*, 36 S. ILL. U.L.J. 287, 288 (2012); David V. Snyder, *Closing the Deal in Contracts: Introducing Transactional Skills in the First Year*, 34 U. TOL. L. REV. 689, 689 (2003).

¹⁰⁶ See ABA STANDARDS, *supra* note 16, at 16.

1. What does "Practice-Ready" Mean?

While much discussed, the term "practice-ready" is not well-defined.¹⁰⁷ Law schools use the term as part of their pitch to prospective students.¹⁰⁸ The general understanding is that the term suggests that students should learn more lawyering skills in law school and rely less on on-the-job training in the first few years of practice. Yet, reasonable minds can differ about how "ready" law graduates can and should be and what comprises the set of skills that are universal and transferable.¹⁰⁹

The exact origin of the phrase "practice-ready" is unknown but the idea is not new.¹¹⁰ As early as 1992, the MacCrate Report sought to advise law schools on how to narrow the gap between legal education and legal practice.¹¹¹ Specifically, the MacCrate Report challenged law schools to provide a program of study that would cultivate the "skills and values" required in the profession.¹¹² In the years that followed, law school faculties and administrations spent much time discussing and debating whether and how the report's recommendations should be implemented in law school curricula.¹¹³

¹⁰⁷ See David Barnhizer, "Practice Ready" Law Graduates 2 (2013) (unpublished manuscript) (on file at https://works.bepress.com/david_barnhizer/83/). Professor Barnhizer comments:

Although there has been an increase in demands that American legal education ought or must become more focused on producing "practice ready graduates" the idea of "practice ready" is poorly defined and elusive. I am certain that when some hear the words they immediately think about the most narrow and technical form of "skills" training that brings to mind something akin to a community college vocational school.

Id.

¹⁰⁸ E.g., *Practice Ready*, CATHOLIC UNIV. OF AM., <http://www.law.edu/PracticeReady.cfm> (last visited Nov. 14, 2016); Gildin, *supra* note 15, at 33; *Educating the Complete Lawyer*, UNIV. OF DETROIT MERCY, <http://www.law.udmercy.edu/index.php/career-services/prospective-students/learn-more-about-udm-laws-practice-ready-curriculum> (last visited Nov. 14, 2016).

¹⁰⁹ See, e.g., Lisa A. Kloppenberg, *Training the Heads, Hands and Hearts of Tomorrow's Lawyers: A Problem Solving Approach*, 2013 J. DISP. RESOL. 103, 104 (defining "practice-readiness" as providing students with "the initial skills needed to flourish in the modern workplace").

¹¹⁰ See Margaret Martin Barry, *Practice Ready: Are We There Yet?*, 32 B.C.J.L. & SOC. JUST. 247, 250 (2012) (noting that the traditional doctrinal approach to teaching law has faced "almost a century of critique" that this approach does not provide enough preparation for the profession).

¹¹¹ MACCRATE REPORT, *supra* note 21, at 202.

¹¹² *Id.* at 236.

¹¹³ See, e.g., Russell Engler, *The MacCrate Report Turns 10: Assessing Its Impact and Identifying Gaps We Should Seek to Narrow*, 8 CLINICAL L. REV. 109, 110 (2001) ("The

In 2007, both “Best Practices for Legal Education”¹¹⁴ and the Carnegie Report¹¹⁵ were published. Best Practices challenged law schools to “significantly improve their students’ preparation for their first professional jobs.”¹¹⁶ The Carnegie Report included practice competence and professionalism as two of the three major goals of legal education and noted an “increasingly urgent need [for law schools] to bridge the gap between analytical and practical knowledge.”¹¹⁷ The Carnegie Report noted that although legal analysis was the third major goal, legal education should place less emphasis there and more emphasis on practice competence and professionalism.¹¹⁸

During the economic downturn that began around 2008, the mainstream media also began to query whether law schools were doing enough to prepare students to enter the profession.¹¹⁹ Legal employers began to call for more practical training in law schools because clients no longer wanted to underwrite on-the-job training for new law graduates.¹²⁰ The bench and bar encouraged the same.¹²¹ Those who advanced these positions noted that

MacCrate Report triggered a flurry of activity in the world of legal education. At various conferences, and in an array of law review articles, commentators analyzed and criticized the Report and its recommendations, but also discussed strategies for the Report’s implementation.”).

¹¹⁴ ROY STUCKEY ET. AL., BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROADMAP 8 (2007) [hereinafter BEST PRACTICES] (“The conundrum that law schools face is that even the most well-designed program of instruction will not prepare students to provide a full range of legal services competently upon graduation after three years.”).

¹¹⁵ CARNEGIE REPORT, *supra* note 21.

¹¹⁶ BEST PRACTICES, *supra* note 114, at 13.

¹¹⁷ CARNEGIE REPORT, *supra* note 21, at 8.

¹¹⁸ *Id.* at 8–10.

¹¹⁹ See Lincoln Caplan, *Editorial, An Existential Crisis for Law Schools*, N.Y. Times, Jul. 15, 2012, at SR10; Ashby Jones & Joseph Palazzolo, *What’s a First Year Lawyer Worth?*, Wall St. J., Oct. 17, 2011, at B1; David Segal, *What They Don’t Teach Law Students: Lawyering*, N.Y. Times, Nov. 19, 2011, at A1; Karen Sloan, *Reality’s Knocking: The Ivory Tower Gives Way to the Real World’s Demands*, NAT’L L.J. & LEGAL TIMES, Sep. 7, 2009, at 1, 15.

¹²⁰ See, e.g., Erwin Chemerinsky, *The Ideal Law School for the 21st Century*, 1 U.C. IRVINE L. REV. 1, 14 (noting that law schools used to “adopt[] the mantra that they teach students to think like lawyers and leave practical training for after graduation”); see also Myra E. Berman, *Portals to Practice: A Multidimensional Approach to Integrating Experiential Education into the Traditional Law School Curriculum*, 1 J. EXPERIENTIAL LEARNING 157, 158 (mentioning “the reluctance and often the incapability of law firms to bear the cost of training new attorneys in basic lawyering skills”); Tierney Plumb, *A Law School-Run Law Firm*, NAT’L JURIST, Feb. 2012, at 23 (“Many law firms are no longer willing to finance the training of entry-level attorneys . . .”).

¹²¹ Neil, *supra* note 103.

practice-readiness did not mean that law schools would produce fully-formed lawyers who did not need any further skills training or professional development, just that they were more prepared to start practice than they had been previously.¹²²

Detractors, however, pushed back on the notion that there should be significant changes to legal education.¹²³ Critics pointed out that law is not a “unitary profession,” and not only is it impossible to train students for all forms of law practice, it is also impractical to train them for a particular practice area that they may not wind up in upon graduation.¹²⁴ Even those who favored a practice-readiness standard recognized law schools cannot teach all students to do all things in only three years.¹²⁵ This is similar to some of the debates that followed the publications of the MacCrate Report, the Carnegie Report, and the Best Practices Report.¹²⁶

Some have attempted to carve out a compromise position, one that acknowledges the need for change but cautioning against a singular focus on preparedness for practice.¹²⁷ Regardless, changes have mostly come in the form of additions, not subtractions, to the general curriculum. For example, some law schools have expanded their clinical offerings and skills-focused classes in both the first year and upper-level curricula.¹²⁸

¹²² Stephanie M. Wildman, *In Honor of Angela Harris: Finding Breathing Space, Embracing the Contradictions, and “Education Work”*, 47 U.C. DAVIS L. REV. 1047, 1059 n.48 (2014) (“This emphasis on skills to begin work suggests a definition of practice readiness that recognizes ‘practice’ implies continuing professional development and not a final goal.”).

¹²³ Barry, *supra* note 110, at 250 (“Yet, many in the law academy still hold onto the traditional approach, believing it will—or unconcerned that it will not—give students the grounding required to handle the pressing needs of their clients, whether an individual, corporation, government entity, or NGO.”).

¹²⁴ Condlin, *supra* note 16, at 86.

¹²⁵ Keene, *supra* note 105, at 471–72 (“Given the breadth and diversity of legal jobs, we soon discover that legal educators can no more meet this goal than a goal to introduce law students to every area of law or legal concept that they will subsequently encounter.”).

¹²⁶ See, e.g., Boyack, *supra* note 21.

¹²⁷ Alfred S. Konefsky & Barry Sullivan, *There’s More to the Law than ‘Practice-Ready’*, CHRON. OF HIGHER EDUC. (Oct. 23, 2011), <http://chronicle.com/article/Theres-More-to-the-Law-Than/129493/>; Starla J. Williams & Iva J. Ferrell, *No at-Risk Law Student Left Behind: The Convergence of Academic Support Pedagogy and Experiential Education*, 38 S. ILL. U.L.J. 375, 378 (2014) (“The basic conflict between imparting legal knowledge and infusing practical skills forms the crux of this long-standing clash between academicians and practitioners of the bar, while reformers of legal education aptly recognize that both approaches are essential.”).

¹²⁸ See, e.g., Lynnise Pantin, *Deals or No Deals: Integrating Transactional Skills in the First Year Curriculum*, 41 OHIO N. U. L. REV. 61, 72 (2014) (calling for a 1L course on transactional skills).

Like it or not, practice-readiness is going to remain part of the curricular conversation because of the new ABA standards.¹²⁹ Following the recommendation from the 2011 Annual Meeting of the ABA,¹³⁰ some law school standards were revised. For example, ABA Standard 301(a) requires that “[a] law school shall maintain a rigorous program of legal education that prepares its students, upon graduation, for admission to the bar and for effective, ethical, and responsible participation as members of the legal profession.”¹³¹ Standard 302 requires that “[a] law school shall establish learning outcomes that shall, at a minimum, include competency in the following: . . . (b) Legal analysis and reasoning, legal research, problem-solving, and written and oral communication in the legal context”¹³²

2. *Legal Research and Writing as Practice-Ready Skills*

Legal research is almost universally regarded as one of the skills that new graduates should possess.¹³³ It is one of the five essential skills for legal practice identified in the MacCrate Report.¹³⁴ In a 2007 survey of law firm librarians, 84.8% of them ranked cost-effective research as the most important research task.¹³⁵ According to the 2014 ABA Technology Report, attorneys spend approximately one-fifth of their billable hours engaged in legal research.¹³⁶

Criticism of law graduates’ legal research skills has been as much of a part of the conversation as its importance. In 1993, just after the issuance of the MacCrate Report, Professor Donald Dunn stated that “No one seems happy these days with either the quality of the legal research instruction provided by law schools or the quality of the legal research being conducted

¹²⁹ ABA STANDARDS, *supra* note 16, at 15–25.

¹³⁰ ABA DAILY JOURNAL, *supra* note 24, at 18 (“[T]he American Bar Association urges legal education providers to implement curricular programs intended to develop practice-ready lawyers including, but not limited to, enhanced capstone and clinical courses that include client meetings and court appearances.”).

¹³¹ ABA STANDARDS, *supra* note 16, at 15. Standard 301(b) states that “A law school shall establish and publish learning outcomes designed to achieve these objectives.” *Id.*

¹³² *Id.*

¹³³ MACCRATE REPORT, *supra* note 21, at 135.

¹³⁴ *Id.* The other four were factual investigation, communication, counseling, and negotiation. *Id.* Note that the Carnegie Report did not mention legal research. See CARNEGIE REPORT, *supra* note 21, at 8–10.

¹³⁵ Patrick Meyer, *Law Firm Legal Research Requirements for New Attorneys*, 101 LAW LIB. J. 297, 311 (2009).

¹³⁶ Joshua Poje, *Legal Research*, A.B.A., <http://www.americanbar.org/publications/techreport/2014/legal-research.html> (last visited Nov. 14, 2016).

by law students and recent law school graduates.”¹³⁷ Dunn attributed the decline in legal research skills to (1) an increased emphasis on writing and (2) the adoption of computer-assisted legal research.¹³⁸

The legal writing abilities of new graduates have also garnered some negative attention. Following the publication of the MacCrate Report, Judge Harry T. Edwards of the United States Court of Appeals for the District of Columbia Circuit noted that, “Another matter of serious concern in legal education is the lack of good training in legal writing” because “[m]any lawyers appear not to understand even the most elementary matters pertaining to style of presentation in legal writing”¹³⁹ Similarly, a 2003 survey of attorneys, judges, and legal writing professors found “almost universal agreement, across the groups, that most legal writing is weak.”¹⁴⁰

These criticisms have persisted as the commentary about practice-readiness has expanded in recent years. Critics note that legal research and writing programs have been slow to change,¹⁴¹ that new graduates are “unable to perform cost-effective research, are unable to think conceptually when researching, and are unable to use print and online sources interchangeably.”¹⁴² There have also been repeated calls for more writing opportunities in the law school curriculum, either through more than the ABA’s minimum requirements¹⁴³ or more writing opportunities across the curriculum.¹⁴⁴

But what does it mean to be a “practice-ready” legal researcher or legal writer? As discussed above, the legal technology landscape is ever-changing, and new research and case management tools become available

¹³⁷ Donald J. Dunn, *Why Legal Research Skills Declined, or When Two Rights Make a Wrong*, 85 LAW LIBR. J. 49, 49 (1993).

¹³⁸ *Id.* at 52.

¹³⁹ See Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession*, 91 MICH. L. REV. 34, 63-64 (1992).

¹⁴⁰ Susan Hanley Kosse & David T. Ritchie, *How Judges, Practitioners, and Legal Writing Teachers Assess the Writing Skills of New Law Graduates: A Comparative Study*, 53 J. LEGAL EDUC. 80, 85 (2003).

¹⁴¹ See, e.g., Amy Vorenberg & Margaret Sova McCabe, *Practice Writing: Responding to the Needs of the Bench and Bar in First-Year Writing Programs*, 2 PHOENIX L. REV. 1, 3 (2009).

¹⁴² Aliza B. Kaplan & Kathleen Darvil, *Think (and Practice) Like A Lawyer: Legal Research for the New Millennials*, 8 LEGAL COMM. & RHETORIC: JALWD 153, 157 (2011); see also Patrick Meyer, *Law Firm Legal Research Requirements for New Attorneys*, 101 LAW LIB. J. 297, 321 (2009).

¹⁴³ See ABA STANDARDS, *supra* note 16, at 16 (requiring in Standard 303(a)(2) one first year and one additional faculty-supervised writing experience).

¹⁴⁴ See, e.g., Keene, *supra* note 105, at 468.

on a regular basis.¹⁴⁵ It is impractical to think that new law graduates can enter practice with a skill-set that will remain intact throughout their years of legal practice; in fact, it might be impractical to think that the legal research and writing tools taught in the first year will be relevant at the time the law graduate enters practice two years later. We need a new way to think about these skills that encompasses both the realities of modern practice and the limitations of a narrow definition of practice-readiness. To date, “practice-readiness” in the world of legal research and writing has meant “can research and write based on the technologies that comprised the industry standard at the time of law school enrollment.” Why not reframe these skills to include an ability to approach research questions differently, to present information and new and innovative ways, and to be mindful of the gap between the old and new approaches to doing so in practice? One way to think about these skills might be through the lens of information literacy.

III. THE INFORMATION LITERATE ASSOCIATE IS PRACTICE-READY

To be truly practice-ready, the new law school graduate must be able to be flexible and adaptable to change, with the simultaneous ability to be comfortable and conversant in older technologies and able to master new technologies and apply them to the practice of law. To prepare students for this, legal educators, and particularly those teaching legal research and writing, must move beyond an understanding of research and writing as fixed skills with clearly defined parameters. While the fundamentals of research and writing are still important, it is time to start broadening our understanding of skills to include the ability to self-learn, to ask the right questions, and to evaluate and incorporate new methods into existing skill-sets. The field of information literacy, initially developed as a pedagogical approach to teaching research, offers a new way of looking at skill development to produce practice-ready lawyers.

A. *What is Information Literacy?*

Over the past few years, discussions about legal research instruction and competencies have begun to include the idea of *information literacy*.¹⁴⁶

¹⁴⁵ See notes 35–43 and accompanying text.

¹⁴⁶ See, e.g., Keene, *supra* note 105, at 468; Catherine A. Lemmer, *A View From the Flip Side: Using the “Inverted Classroom” to Enhance the Legal Information Literacy of the International LL.M. Student*, 105 LAW LIBR. J. 461, 462–63 (2013); Rebecca Lutkenhaus & Karen Wallace, *Assessing the Effectiveness of Single-Session Legal Research Skill*

The generally accepted definition of information literacy is the ability to “recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information.”¹⁴⁷ The American Association of Law Librarians adopted this definition in 2012.¹⁴⁸

The concept of information literacy was first discussed in 1974: “People trained in the application of information resources to their work can be called information literates.”¹⁴⁹ The concept was further developed in the 1980s as educators began to recognize that information was becoming more widely available and accessible electronically, rather than bibliographically.¹⁵⁰ Information literacy as a concept includes both instructional approaches and learning outcomes for gathering and using information.¹⁵¹ Thus, information literacy can provide a framework for approaching the process of legal research and writing as well as a way to assess whether law graduates have achieved sufficient competency levels to be considered “practice ready.”¹⁵²

Instruction Through Pre- And Post-Testing: A Case Study, 107 LAW LIBR. J. 57, 58 (2015); Ellie Margolis & Kristen Murray, *Teaching Research Using an Information Literacy Paradigm*, 22 PERSP.: TEACHING LEGAL RES. & WRITING 101, 101–03 (2014); Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 120; Ben Beljaars, *Implementing Legal Information Literacy: A Challenge for the Curriculum*, 37 INT’L J. LEGAL INFO. 321, 321–22 (2009); Thomas Keefe, *Teaching Legal Research from the Inside Out*, 97 LAW LIBR. J. 117, 121–22 (2005); 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, 678–79 (2005); Sarah Valentine, *Legal Research as a Fundamental Skill: A Lifeboat for Students and Law Schools*, 39 U. BALT. L. REV. 173, 221–22 (2010) [hereinafter Valentine, *A Lifeboat for Students*].

¹⁴⁷ *Presidential Committee on Information Literacy: Final Report*, AM. LIBR. ASS’N (Jan. 10, 1989), <http://www.ala.org/acrl/publications/whitepapers/presidential>.

¹⁴⁸ *Principles and Standards for Legal Research Competency*, AM. ASS’N L. LIBR. (Jul. 11, 2013) [hereinafter *AALL Principles and Standards*], <http://www.aallnet.org/Documents/Leadership-Governance/Policies/policy-legalrescompetency.pdf>.

¹⁴⁹ See Shirley J. Behrens, *A Conceptual Analysis and Historical Overview of Information Literacy*, 55 C. & Res. Libr. 309, 310 (1994) (quoting PAUL G. ZURKOWSKI, NAT’L COMM’N ON LIBRARIES & INFO. SCI., *THE INFORMATION SERVICE ENVIRONMENT: RELATIONSHIPS AND PRIORITIES* 6 (1974)).

¹⁵⁰ See 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, 193–94 (2003).

¹⁵¹ See, e.g., 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, 607–09 (2011).

¹⁵² *Id.*; see also *Information Literacy Competency Standards for Higher Education*, ASS’N C. & RES. LIBR. [hereinafter *Information Literacy Competency Standards*], <http://www.ala.org/acrl/standards/informationliteracycompetency> (last visited Oct. 22, 2016)

1. Information Literacy Generally

The Association of College and Research Libraries (ACRL) first formally adopted a definition and set of competency standards for information literacy in 2000.¹⁵³ The ACRL defines information literacy as “[t]he set of skills needed to find, retrieve, analyze, and use information.”¹⁵⁴ According to the ACRL, information literacy is increasingly important in today’s world of “rapid technological change and proliferating information resources.”¹⁵⁵ As the ACRL noted, “[t]he sheer abundance of information will not in itself create a more informed citizenry without a complementary cluster of abilities necessary to use information effectively.”¹⁵⁶ An individual who is information literate has the skills to adapt to changes in the research environment and retain the ability of lifelong learning.¹⁵⁷

The ACRL developed five primary competencies for assessing information literacy.¹⁵⁸ 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.¹⁵⁹ The competencies are as follows:

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

(“Information literacy competency extends learning beyond formal classroom settings and provides practice with self-directed investigations as individuals move into internships, first professional positions, and increasing responsibilities in all arenas of life.”).

¹⁵³ See *Information Literacy Competency Standards*, *supra* note 152.

¹⁵⁴ *Information Literacy Glossary*, ASS’N C. & RES. LIBR. <http://www.ala.org/acrl/issues/infolit/overview/glossary> (last visited Oct. 22, 2016).

¹⁵⁵ *Information Literacy Competency Standards*, *supra* note 151.

¹⁵⁶ *Id.*

¹⁵⁷ *See id.*

¹⁵⁸ *The Standards: Step-by-Step*, ASS’N C. & RES. LIBR. [hereinafter *The Standards*], <http://www.ala.org/acrl/issues/infolit/standards/steps> (last visited Oct. 22, 2016).

¹⁵⁹ *Information Literacy Competency Standards*, *supra* note 152; *see also* Kim-Prieto, *supra* note 151, at 608.

5. **Ethical/Legal:** “The information literate student understands many of the economic, social and legal issues surrounding the use of information and accesses and uses information ethically and legally.”¹⁶⁰

Each of these five standards is accompanied by performance indicators that provide a concrete description of the skills needed to achieve competence.¹⁶¹ The performance indicators identify specifically what the student should learn.¹⁶² For example, one of the performance indicators for Standard 2 is that the “information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information.”¹⁶³ Each performance indicator contains a set of learning outcomes, which provide specific means of assessing whether the student has learned.¹⁶⁴

While the competency standards are intended to apply to all forms of higher education, the ACRL recognizes that different disciplines could customize the different competencies to address each discipline’s learning process.¹⁶⁵ Indeed, the standards have been modified for use in a number of different disciplines and subjects.¹⁶⁶ While the ACRL has not adopted information literacy standards for legal research and writing, they have obvious application in that context. However, because legal research and writing are specialized tasks, it is important to give careful consideration to how information literacy principles might be implemented in a law school context.

2. *Information Literacy and Legal Research and Writing*

While information literacy provides a useful framework for discussing practice-readiness in the context of new graduates’ legal research and writing skills, it has not yet taken hold as a concept in law school research

¹⁶⁰ *The Standards*, *supra* note 158.

¹⁶¹ *Information Literacy Competency Standards*, *supra* note 152.

¹⁶² *The Standards*, *supra* note 158.

¹⁶³ *Information Literacy Competency Standards*, *supra* note 152.

¹⁶⁴ *See The Standards*, *supra* note 158. For example, a learning outcome of the first performance indicator for Standard Two is that the student “[i]nvestigates benefits and applicability of various investigative methods.” *Information Literacy Competency Standards*, *supra* note 152.

¹⁶⁵ *See Information Literacy Competency Standards*, *supra* note 152.

¹⁶⁶ *See Guidelines, Standards, & Frameworks*, ASS’N C. & RES. LIBR., <http://www.ala.org/acrl/standards> (last visited Oct. 22, 2016) (showing information literacy standards for journalism, anthropology and sociology, teaching education, and science and technology among others); Kim-Prieto, *supra* note 151, at 606–07.

and writing instruction. There have been increasing calls for considering information literacy in a legal research context,¹⁶⁷ but no legal research textbooks explicitly use an information literacy framework and legal research courses have been slow to make use of information literacy principles. And while writing-related principles of information literacy track some general ideas about writing instruction and learning outcomes, legal writing has largely been absent from conversations about bringing information literacy into law schools.

Law librarians have devoted some attention to information literacy, and in July 2013, the Executive Board of the American Association of Law Libraries (AALL) adopted a set of *Principles and Standards for Legal Research Competency*, which are modeled on the ACRL standards.¹⁶⁸ In so doing, the AALL

invite[d] librarians, law schools, law firms, continuing legal education providers, and relevant organizations in the legal profession to engage in the implementation of these *Principles and Standards* in meaningful ways that will result in more competent, effective, and efficient legal research, thus impacting the bottom line and provision of legal services positively[.]¹⁶⁹

The AALL also challenged entities within the legal profession “to embrace legal research competency as a necessary skill and to incorporate these standards and competencies into its own performance measures.”¹⁷⁰

¹⁶⁷ See Beljaars, *supra* note 146, at 321–22; Keefe, *supra* note 146, at 121–22; Peoples, *supra* note 146, at 678–79; Nancy B. Talley, *Are You Doing It Backward? Improving Information Literacy Instruction Using the AALL Principles and Standards for Legal Research Competency, Taxonomies, and Backward Design*, 106 LAW LIBR. J. 47, 51 (2014); Valentine, *A Lifeboat for Students*, *supra* note 146, at 221–22.

¹⁶⁸ See *AALL Principles and Standards*, *supra* note 148.

¹⁶⁹ *Legal Research Competency*, AM. ASS’N L. LIBR., <http://www.aallnet.org/mm/Advocacy/legalresearchcompetency> (last visited Oct. 22, 2016) [hereinafter *Legal Research Competency*].

¹⁷⁰ *Id.* The AALL has also taken concrete steps to encourage engagement with the Principles and Standards. See, e.g., Dennis Kim-Prieto & Mustafa Kerem Kahvecioglu, *Three Faces of Information Literacy in Legal Studies: Research Instruction and Law Student Information Literacy Standards in the American Common Law, British Common Law, and Turkish Civilian Legal Traditions*, 42 INT’L J. LEGAL INFO. 293, 296 (2014). The authors noted that:

[R]epresentatives from the Promoting the *AALL Principles and Standards for Legal Research Competency* Task Force presented a program entitled “Using the *AALL Principles and Standards for Legal Research Competencies* in Law Schools and Law Firms” at a recent meeting of the National Association for Law Placement/American Law Institute Professional Development Institute (NALP/ALI PDI)[.]

Id.

These Principles and Standards for Legal Research Competency are more explicitly tied to the process of legal problem solving and analysis.¹⁷¹ The “Principles” are “broad statements of foundational, enduring values related to skilled legal research as endorsed by the American Association of Law Libraries.”¹⁷² The “Standards” then “provide a set of more specific applications of those norms or habits that demonstrate one’s commitment to and attainment of the principles.”¹⁷³ Finally, the “Competencies” are “activities that demonstrate knowledge and skill” and “provide concrete measures or indicators of successful achievement of the abilities required to meet the standards.”¹⁷⁴ The AALL notes that these principles, standards, and competencies are “applicable and desirable across the legal profession and beyond the law school experience”¹⁷⁵ and they provide a good starting point for a discussion of how to incorporate information literacy as a framework for teaching and assessing legal research and writing.

Like the ACRL Standards, the Principles and Standards identify five primary principles, each further defined with particular standards and competencies.¹⁷⁶ The five principles are that students: 1) possess foundational knowledge of the legal system, 2) implement effective, efficient research strategies, 3) critically evaluate 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.¹⁷⁷ The first three of the Principles are most closely related to the material generally covered in legal research courses, while the final two involve the application of information and its ethical and legal uses, and are thus related to the writing, rather than research, process.

The first principle is that “a successful legal researcher possesses foundational knowledge of the legal system and legal information sources.”¹⁷⁸ This requires that students understand the legal system, the interrelationship between branches of government, and the structure and interrelationships between and among foreign and international legal systems. In addition, the researcher should be able to distinguish between primary and secondary sources of law and understand how to use each.

¹⁷¹ *AALL Principles and Standards*, *supra* note 148.

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Legal Research Competency*, *supra* note 169.

¹⁷⁶ *AALL Principles and Standards*, *supra* note 148.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

The second principle focuses on “effective and efficient research strategies.”¹⁷⁹ 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.¹⁸⁰ 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.¹⁸¹

The third principle requires that the legal researcher “critically evaluate[] information.”¹⁸² This principle focuses on knowing that the reliability of all information (whether print or online or legal or nonlegal) is based on authority, credibility, currency, and authenticity.¹⁸³ Students should also be able to evaluate sources using a cost-benefit analysis.¹⁸⁴ The third principle also recognizes the recursive nature of the research process, asking that researchers review the information obtained and adjust their search parameters going forward.¹⁸⁵

The fourth principle notes that “[a] successful legal researcher applies information effectively to resolve a specific issue or need.”¹⁸⁶ This requires that students use rule synthesis and analogical reasoning to analyze legal problems. This principle also requires students to look back at their research as they apply this information: to modify and expand research queries; to determine when there is enough information to explain or support a conclusion; and to answer all issues or make analogies when the research cannot fully resolve the issue posed. Applying the information in written work product also involves considerations of audience, persuasion, and attribution.¹⁸⁷

The fifth and final principle notes that a “successful legal researcher distinguishes between ethical and unethical uses of information, and understands the legal issues associated with discovery, use, or application of information.”¹⁸⁸ Information ethics in this context includes determining a lawyer’s ethical obligations (to the court, the bar, and society) and

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ *See id.*

¹⁸⁴ *Id.*

¹⁸⁵ *See id.*

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

understanding an organization's rules on access, storage, and dissemination of information. This principle also requires that students understand the principles of intellectual property, copyright, fair use, and legal norms of citation and attribution.¹⁸⁹ Standard C of this fifth principle states that “[a]n information-literate legal professional understands that research skills are among the set of professional skills that are continuously learned and re-learned throughout one’s professional life.”¹⁹⁰

In many ways, these principles reflect the way that most legal skills professors already think about legal research and writing. None of these principles are attached to any particular technology. Reframing skills education in terms of information literacy skills and competencies provides a way to get away from the source-based research instruction that is becoming increasingly outdated. Information literacy can be a useful way of rethinking legal research and writing pedagogy.¹⁹¹ But it can also help define and assess whether a law graduate’s research and writing skills are “practice ready.”

B. Why Should Information Literacy be Considered Part of Practice-Readiness?

As we stand at this crossroads where research and writing has changed in a change-resistant profession, information literacy provides a useful conceptual framework for considering both the realities of how technology functions in modern law practice and the way we think about what it means to be “practice-ready.” In discussing incorporating information literacy into law schools, law librarians and legal research professors have focused on information literacy as a teaching technique or a learning outcome.¹⁹² With this article, we propose to expand the understanding of information literacy to think of it as an independent skill to cultivate in new law graduates, to prepare them for a practice that is ever-changing, and for their new role as ambassadors of that change.

Senior attorneys have high expectations for new attorneys as they enter the practice of law, but the list of skills those expectations encompass is not

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ See, e.g., *Information Literacy Plan*, UNIV. N.H. L. LIBR. <http://library.law.unh.edu/InformationLiteracyPlan> (last visited Oct. 22, 2016); Paul D. Callister, *Time to Blossom: An Inquiry into Bloom’s Taxonomy as A Hierarchy and Means for Teaching Legal Research Skills*, 102 L. LIBR. J. 191, 191–92 (2010).

¹⁹² Margolis & Murray, *See Say Goodbye to the Books*, *supra* note 12, at 127; see also Talley, *supra* note 167, at 54–55, 63.

clear. New lawyers spend a significant amount of their time on legal research and writing tasks.¹⁹³ In contrast to many other fields, obsolete legal research and writing technologies do not necessarily sunset. Therefore, new lawyers must be prepared to conduct research using these older technologies as well as current and future technologies. Although legal research and writing instruction and methods now look quite different than the form they took when today's senior lawyers were first trained, the old methods have not been fully displaced—law libraries still feature full sets of books containing both primary and secondary sources, and typewriters still linger in secretarial bays—even though they are no longer the best and most efficient way to conduct legal research and writing.

Depending when they went to law school, senior lawyers often approach research and writing with a traditional mindset, even when using more modern technologies. This is true even though the organization of legal information has been reconceptualized. The bibliographic method was in place and undisturbed for more than a century.¹⁹⁴ Now, innovations occur on an almost yearly basis.¹⁹⁵ The state-of-the-art research and writing technology that exists for a class of 1Ls could be disfavored by the time those students graduate.

These rapid changes have led legal research and writing scholars to devote much attention to questions of pedagogy and training in a world of online legal research and writing. Legal research and writing professors have recognized and incorporated technological changes and advances in the first year and beyond.¹⁹⁶ The more specific the advice is, though, the more likely it is to be obsolete soon, possibly even while the students are still in school. And there is no way every student could be conversant in every new approach, because the list of potentially useful legal research and writing technologies grows ever longer.¹⁹⁷ Even knowing what is most popular in the marketplace does not necessarily mean that a particular service will be available in any given workplace.¹⁹⁸

An information literacy approach will allow new attorneys to adjust and problem-solve, serving as translators for more senior attorneys who have not adapted to the changes. For example, while some senior attorneys have adjusted to new research methods, others still approach legal research using

¹⁹³ See, e.g., Sinsheimer & Herring, *supra* note 81.

¹⁹⁴ Margolis & Murray, *Say Goodbye to the Books*, *supra* note 12, at 121–22.

¹⁹⁵ See Toohey, *supra* note 11, at 1.

¹⁹⁶ See *supra* Parts II.A.1–2.

¹⁹⁷ Lee et al., *supra* note 40, at 32 (acknowledging that “[t]he landscape of legal research tools is changing . . . again” (alteration in original)).

¹⁹⁸ See MART ET AL., *supra* note 65.

electronic proxies for the print materials they learned with, or do not understand the differences between older versions of Westlaw and Lexis and the current, more sophisticated search algorithms. For now, relying on old methods of organization can work—you can hack your way into “old” Westlaw by using traditional Boolean search methods. But, as technology continues to develop, and vendors develop more advanced products and complex algorithms, there may come a point when this hack is no longer possible. Information literacy skills allow new lawyers to be “bilingual”—able to speak to more senior lawyers in a language they understand, and help show them that new technologies can achieve the same, or better, results.

Similarly, the profession has drifted from the formal legal memorandum as the primary mode of written communication between lawyers.¹⁹⁹ More experienced attorneys may be wedded to legal writing that looks the same as it did when they went to law school. Digital natives are far more likely to be familiar with and use shorter forms of communication including, like texts and tweets, and are more likely to adopt an informal writing style. They also may have thought about document design beyond typical word processing: use of graphics, font selection, or other visual choices.²⁰⁰ They may be quicker to grasp the possibility of communicating complex analysis through visual media such as infographics, rather than pure, linear text. This again leads to a gap between what senior and newly-minted attorneys expect when they think about written communication. An information literacy approach can bridge that gap, allowing new lawyers to communicate with their supervisors to demonstrate that they have the skills needed to practice law.

We should think about information literacy as a stand-alone skill that encompasses both legal research and legal writing rather than only as a methodology for instruction for one or the other or both. Information literacy can be viewed as a type of metacognitive skill, giving students the ability to adapt existing learning to new situations and setting them up for success.²⁰¹ New lawyers who are trained with an awareness of the foundational principles of information literacy will be more successful in practice because these skills enable them to demonstrate competency,

¹⁹⁹ See, e.g., Robbins-Tiscione, *supra* note 87, at 32.

²⁰⁰ See Margolis, *Medium*, *supra* note 35, at 16; see also Robbins, *supra* note 95, at 131–34, BUTTERICK, *supra* note 95, at 180.

²⁰¹ Anthony Niedwiecki, *Teaching for Lifelong Learning: Improving the Metacognitive Skills of Law Students Through More Effective Formative Assessment Techniques*, 40 CAP. U. L. Rev. 149, 155–56 (2012).

transferability, and a capacity for innovation. Thinking of information literacy as a hallmark of practice-readiness works for several reasons.

First, in a world of electronic research and writing, method does not matter, as long as the results are sound. An information literacy strategy focuses on those results, and should give the researcher enough confidence to talk about those results in a way that resonates with any audience, including an audience that is skeptical of new methodologies. At the end of the research process, a good legal researcher will have all the authority required to provide a competent answer to a legal question, no matter the method(s) used in her research. But new lawyers must also be able to communicate to more senior lawyers that the research has been complete and is reliable. The gap between the “old” and “new” or current way of doing legal research can be an obstacle to that communication. An information literate associate, however, can communicate the results of their research in terms that more senior lawyers can understand.

The information literate lawyer must first be able to recognize what is behind a question. In the research context, a lawyer rooted in traditional bibliographic research methods might ask a junior associate whether she used the digest to explore other possible cases on a particular issue. The information literate junior associate would understand that this is really a question about how thorough the research was, and be able to explain the process in a way that shows it was comprehensive. For example, the junior associate might explain that she identified all of the relevant cases in the jurisdiction by searching for a key term in the relevant database. This skill can extend to areas beyond pure research as well; for example, when an experienced lawyer asks, “Did you Bluebook this?” she is really asking whether proper citation form was followed, not whether a particular book was used.

Second, expectations for legal writing are perhaps more entrenched than those for legal research. How much has the memorandum or brief really changed from its original form? Yet, there are good reasons to consider making changes, especially changes made possible by technology. Documents can be more functional, more visually appealing, and more *persuasive* if we rethink the traditional approaches. For example, including a visual image in a brief or judicial opinion might more effectively convey the relationship between legal concepts than a linear written explanation.²⁰²

²⁰² See, e.g., Porter, *supra* note 45, at 1687; Lisa Eichhorn, *Old Habits: Sister Bernadette and the Potential Revival of Sentence Diagramming in Written Legal Advocacy*, 13 LEGAL COMM. & RHETORIC: JALWD (2016).

Principles of typography can lead to changes in font and spacing that make a document more convincing.²⁰³

New lawyers are perhaps best able to offer suggestions of how legal documents might be written differently, though the least likely to make the ultimate call on whether to try something innovative. Still, innovation requires that someone make the first move. An information literate lawyer can properly appraise and present options for innovation, even to more senior colleagues who are more comfortable with traditional approaches. For example, while writing an appellate brief, a new lawyer might show a supervisor what it would look like in a different font, assure that supervisor that the font change is within court rules, and be ready to provide the research that shows why some fonts are more effective than others.

Third, the elements of practice-readiness have traditionally been classified as either doctrinal work that helps students think like lawyers or experiential learning that provides hard lawyering skills. The challenge is striking the right balance between the two. Adding information literacy as one of the skills we cultivate in our students expands the definition to include the critical role that new lawyers must play: ambassadors of change. Today's graduates find themselves in the unique position of being the most junior employees and the most fluent in new and innovative practice-based technologies. Making legal information literacy part of the basket of skills we ascribe to the "practice-ready" law graduate reframes both our expectations of new lawyers and how they perceive their own skill sets. It allows them to appraise the value of newer innovations that emerge once they are in practice. Unlike their predecessors, this next generation of lawyers is less likely to be as wedded to the methods they learned because they have changed so fast already.

Fourth, no law graduate is going to enter practice with no need for additional training. Even the most prepared new lawyer will have to learn more about how her particular law office functions, what case management tools the organization uses, and other context-specific skills.²⁰⁴ One of the fundamental advantages of an information literacy approach is that it encourages self-learning and promotes a mindset ready to look for and accept change. Thinking of a lawyer's skill set as one of information literacy (know, access, evaluate, use) provides necessary flexibility to adapt to the shifting nature of law practice.

²⁰³ See Robbins, *supra* note 95, at 110, 113.

²⁰⁴ See Lee et al., *supra* note 40, at 54 (noting that disruptive technologies are making it harder for professors to know with certainty "what legal services technologies their students will confront after law school").

Finally, this idea of information literacy as a skill can be implemented across the curriculum.²⁰⁵ Perhaps doctrinal teaching already includes this conceptually, though not overtly: the graduate who is competent in core subjects upon graduation cannot stand on that knowledge for the duration of her career. As the law changes, lawyers need to keep up. Information literacy captures this concept in a concrete way. Similarly, information literacy is not a skill that is (or should be) associated with one type of law practice or another. Thus, it transcends the debate over whether graduates should be practice-ready in litigation versus transaction work, or whether practice-readiness does not work as a concept, because law students may not be committed to a particular practice area upon graduation.

Eventually, perhaps information literacy can become a skill that is valued and recognized in the profession writ large, not just in newly-minted attorneys. It could be embedded in the culture of the profession in such a way that it becomes a necessary competency for bar passage or promotion within the profession. The profession as a whole would benefit from an expansive, information literacy-based view of what it means to be a successful practitioner.

Much of what we have discussed will continue to change, and change rapidly. Legal research and writing technologies will continue to evolve. Innovations will become the status quo in the face of new disruptive technologies. The proportion of digital natives involved in the practice of law will grow. If law practice changes, so too must the definition of what it means to be “practice ready.” This is why we should think of information literacy as one of the skills we wish to cultivate in new graduates. Making information literacy an end goal and incorporating it across the curriculum acknowledges the important changes to legal research and writing and allows room for the next generation of lawyers to bring those changes into practice.

²⁰⁵ See, e.g., Talley, *supra* note 167, at 51 (“The most practical means of incorporating information literacy instruction into legal education is to integrate it into doctrinal courses in which librarians collaborate closely with faculty members, as part of a library component to a legal research and writing class or in an advanced legal research course.”).

