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LEGAL RESEARCH AS A FUNDAMENTAL SKILL: A LIFEBOAT FOR STUDENTS AND LAW SCHOOLS

Sarah Valentine†

I. INTRODUCTION

Law schools are confronting a sea change in their educational responsibilities as they contend with calls to instill skills training in addition to teaching doctrine and analysis. In addition, ever-growing waves of information are overwhelming law students, eroding their research skills, and weakening their ability to learn legal analysis.¹ Legal research, recognized and taught as both a legal and a lawyering skill, can be a lifeboat for law schools and law students riding out this storm.

In 2005, with the revision of Standard 302 governing accreditation, the American Bar Association mandated skills training.² In 2007, two surveys of law teaching in the United States, *Educating Lawyers*³ and *Best Practices for Legal Education*,⁴ found that law schools often fail to teach the skills necessary for the competent and ethical practice of law.⁵ Beyond laments about the lack of general lawyering

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1. See *infra* Part II.C.
2. See Harriet N. Katz, *Evaluating the Skills Curriculum: Challenges and Opportunities for Law Schools*, 59 MERCER L. REV. 909, 909 (2008) (noting that ABA Standard 302 was revised in 2005 to mandate skills training in law schools).
3. See generally WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007) [hereinafter CARNEGIE REPORT] (providing an overview of the American Bar Association's mandate of skills training).
4. ROY STUCKEY ET AL., BEST PRACTICES FOR LEGAL EDUCATION (2007) [hereinafter BEST PRACTICES].
5. See *id.* at 11.

skills, the bench and bar also routinely highlight the inadequacy of the legal research skills of recent law graduates.⁶ The growth of in-school clinics, internships, and externships has also surfaced complaints about the research capabilities of law students.⁷ Dissatisfaction with legal research education has reached a point where the ABA is seriously considering introducing a legal research component on the bar exam.⁸

There are additional circumstances mandating the restructuring of legal research. First, the growth of the administrative state requires that all law students be provided training in statutory and regulatory research earlier and at a level not often undertaken in the past.⁹ A solid foundation in regulatory research can no longer be relegated to the few who take an advanced legal research course. Second, law schools are recognizing the impact of globalization and are beginning to introduce first-year students to the basics of international and foreign law.¹⁰ Legal research courses must support the introduction of this material by referencing it in the first year as well. Third, the growth of the Internet and computerized research has broadened both the type of information courts rely on and the type of research

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6. See, e.g., Paul D. Callister, *Beyond Training: Law Librarianship's Quest for the Pedagogy of Legal Research Education*, 95 LAW LIBR. J. 7, 9–11 (2003) (providing a collection of anecdotes, studies, and reports, which address the absence of legal research skills in both law students and law graduates).
 7. See, e.g., Carolyn R. Young & Barbara A. Blanco, *What Students Don't Know Will Hurt Them: A Frank View from the Field on How to Better Prepare Our Clinic and Externship Students*, 14 CLINICAL L. REV. 105, 116–17 (2007) (noting a survey of clinic and extern supervisors that listed legal research skills as one of those found most lacking in their students).
 8. See Erica Moeser, *President's Page*, THE BAR EXAMINER, May 2006, at 4, 5, available at <http://www.ncbex.org/the-bar-examiner/article-archive/> (remarking that the National Conference of Bar Examiners began considering testing legal research on the bar exam in 2006); Katie Flores, *Bar Exam May Soon See Legal Research Questions*, DAILY TEXAN, Oct. 22, 2007, available at <http://media.www.dailytexanonline.com/media/storage/paper410/news/2007/10/22/University/BarExam.May.Soon.See.Legal.Research.Questions-3046333.shtml>; see also Steven M. Barkan, *Should Legal Research Be Included on the Bar Exam? An Exploration of the Question*, 99 LAW LIBR. J. 403 (2007).
 9. Elizabeth Garrett, *Teaching Law and Politics*, 7 N.Y.U. J. LEGIS. & PUB. POL'Y 11, 11 (2003–2004) (noting the importance of law schools providing classes in administrative law during the first year); Ethan J. Leib, *Adding Legislation Courses to the First-Year Curriculum*, 58 J. LEGAL EDUC. 166, 168 n.9 (2008) (listing schools that have moved to change their curriculum to include and/or require administrative and statutory law courses in the first year).
 10. See Terry Hutchinson, *Developing Legal Research Skills: Expanding the Paradigm*, 32 MELB. U. L. REV. 1065, 1080 (2008).

lawyers routinely undertake.¹¹ Attorneys now research in ways they never learned in law school, and this change is primarily driven by technology.¹² The explosion of easily accessible information makes information literacy a required component of law school legal research classes. Fourth, and closely related, is that changes in technology are eroding the foundational structure of the American legal system.¹³ The growing choice of technological tools with which to retrieve, sort, and manage the staggering amount of available information changes how law and information are accessed.¹⁴ These changes affect the very structure of American law, not merely how lawyers research the law.¹⁵ This places the first-year law student in a situation where how she is taught legal analysis and reasoning does not comport with what she finds when she researches the law herself.¹⁶

The challenges created by an increasingly technological world have severe ramifications for legal education and can no longer be

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11. See Coleen M. Barger, *On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials*, 4 J. APP. PRAC. & PROCESS 417, 422–28 (2002).
 12. Marjorie Crawford, *Bridging the Gap Between Legal Education and Practice: Changes to the Way Legal Research is Taught to a New Generation of Students*, AALL SPECTRUM, April 2008, at 10.
 13. Robert C. Berring, *Legal Research and the World of Thinkable Thoughts*, 2 J. APP. PRAC. & PROCESS 305, 311 (2000) [hereinafter Berring, *Thinkable Thoughts*].
 14. See *id.*
 15. Katrina Fischer Kuh, *Electronically Manufactured Law*, 22 HARV. J.L. & TECH. 223, 226 (2008) (arguing that electronic legal research results in an increased diversity in the selection of the legal theories through which to conceptualize facts, which leads to advancement of marginal cases, theories, and arguments); Carol M. Bast & Ransford C. Pyle, *Legal Research in the Computer Age: A Paradigm Shift?* 93 LAW LIBR. J. 285, 297–98 (2001) (arguing that the rise in online legal researching creates an environment in which the researcher focuses more on facts than legal concepts); Robert C. Berring, *Legal Information and the Search for Cognitive Authority*, 88 CAL. L. REV. 1673, 1675 (2000) [hereinafter Berring, *Cognitive Authority*] (arguing that technology is changing the way legal authority is defined and used); Molly Warner Lien, *Technocentrism and the Soul of the Common Law Lawyer*, 48 AM. U. L. REV. 85, 131–32 (1998) (positing that excessive reliance on the use of technology may “overly emphasize rules and certainty at the expense of other goals and qualities we value in lawyering and the legal system: creativity, justice, equity, compassion, and the ability to discover our common fundamental values”). But cf. Judith Lihosit, *Research in the Wild: CALR and the Role of Informal Apprenticeship in Attorney Training*, 101 LAW LIBR. J. 157, 158 (2009) (arguing that because attorneys form and learn from social networks that provide research guidance, the effect of electronic legal research on the structure of the law will not be calamitous as predicted).
 16. See *infra* Part II.D (discussing the impact of technology on legal reasoning as it erodes the neo-classical legal structures created by digest-based research).

ignored. Fortunately, reconstructing legal research can create a course that provides students the skills necessary to understand and manage the explosion of information currently swamping the law. Legal research can teach the information and research skills necessary for today's law practice.¹⁷ It can teach life-long learning skills that will allow students to cope with future legal research environments. Such a class can also provide the skills to understand and manage the disconnect between how legal reasoning is currently being taught and what students find when they attempt to apply those reasoning skills to their own legal work.

Re-imagining¹⁸ and rebuilding legal research is necessary and will take institutional support. However, a legal research program that supports an integrated approach to legal education could be adapted from existing programs. The key is to create a course that teaches legal research as both a fundamental legal skill and a fundamental lawyering skill¹⁹ in the first year of law school.²⁰ Legal research is both, and if it is not taught as such, law students will continue to fail at legal research and be overwhelmed and undermined by the consequences of easily accessible "electronically manufactured" law.²¹ When legal research is taught as both a legal and a lawyering skill, it is a course that actively supports the process of legal analysis that law schools seek to imbue in their first-year students, and it provides skills necessary for the practice of law.

Law schools are "located at the junction between academic and practitioner interests"²² and have two slightly disparate educational

17. See Karen Gross, *Process Reengineering and Legal Education: An Essay on Daring to Think Differently*, 49 N.Y.L. SCH. L. REV. 435, 452–54 (2004–2005).

18. Professor Karen Gross discusses the importance of re-imagining (instead of merely tweaking) the first year of legal education if students are to be able to achieve a more conceptual and less compartmentalized understanding of the law. *Id.* at 436–38.

19. As used here "legal skills" denote skills necessary for legal reasoning and analysis while "lawyering skills" denote more discrete skills necessary for the practice of law such as interviewing or counseling. For a more in depth explanation, see *infra* Part V.

20. The limitations of advanced legal research classes cannot support the changing educational needs of first-year law students. See *infra* notes 98–102 and accompanying text. In addition, the first-year program is where many commentators and law schools have suggested change be addressed first. See, e.g., CARNEGIE REPORT, *supra* note 3, at 3 ("Although our discussion ranges considerably beyond the first-year experience, because that experience is so significant in shaping the whole of legal education, it is our emphasis.").

21. See Kuh, *supra* note 15, at 224 (stating that law arises, evolves, is practiced, and is applied in an electronic medium).

22. CARNEGIE REPORT, *supra* note 3, at 7.

goals.²³ One of the major goals is to inculcate law students with the legal knowledge and analytic skills necessary to pass the bar.²⁴ However, this focus on teaching legal analysis and reasoning has led to a longstanding belief that law schools fail miserably at another important goal — producing law students capable of practicing law.²⁵ This is often viewed as the difference between teaching the “legal skills” necessary to “think like a lawyer” and “lawyering skills” necessary for the practice of law.²⁶ The American Bar Association has identified ten fundamental lawyering skills essential for the competent practice of law, only two of which, problem solving and legal analysis, are directly linked to learning doctrine and analysis.²⁷ While recognizing that these skill sets overlap, this Article adopts this distinction between legal and lawyering skills by using the term “legal skill” to denote the teaching and acquisition of doctrine and legal reasoning abilities, and using the term “lawyering” or “lawyering skills” to denote all other skills routinely used by lawyers.²⁸

23. *See id.*

24. BEST PRACTICES, *supra* note 4, at 39 (quoting Standard 301(a), AMERICAN BAR ASSOCIATION, SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 17 (2006–2007)).

25. BEST PRACTICES, *supra* note 4, at 2 (“Since the 1970’s, numerous groups of leaders of the legal profession and groups of distinguished lawyers, judges, and academics have studied legal education and have universally concluded that most law school graduates lack the minimum competencies required to provide effective and responsible legal services.”) (citation omitted).

26. “Recent research on American legal education concludes that the strength of legal education is teaching substantive law and developing analytical skills—often described as ‘teaching students to think like lawyers.’ . . . Law schools do well in teaching substantive law and developing analytic skills. The problems and issues in American legal education involve chiefly the teaching of other lawyering skills . . .” A.B.A. TASK FORCE ON PROF’L COMPETENCE, FINAL REPORT AND RECOMMENDATIONS OF THE TASK FORCE ON PROFESSIONAL CONDUCT 6 (1983); *see also* CARNEGIE REPORT, *supra* note 3, at 12 (discussing the need to bring teaching and learning of legal doctrine into more fruitful dialogue with the pedagogies of practice).

27. The ten fundamental skills are problem solving, legal analysis, legal research, factual investigation, communication, counseling, negotiation, litigation and alternative dispute-resolution procedures, organization and management of legal work, and recognizing and resolving ethical dilemmas. A.B.A. TASK FORCE ON LAW SCH. & THE PROFESSION, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT - AN EDUCATIONAL CONTINUUM 135 (1992) [hereinafter MACCRATE REPORT].

28. The MACCRATE REPORT identifies several discrete lawyering skills. *See id.* at 135. However, other authors have expanded the definition of lawyering to encompass a broader range of skills. *See, e.g.,* Josiah M. Daniel, III, *A Proposed Definition of the*

Legal research is a legal skill that teaches basic legal knowledge necessary for successful completion of law school.²⁹ It also requires issue-spotting, legal analysis, and the application of law to facts.³⁰ When taught as a legal skill, legal research reinforces and supports the learning of doctrine³¹ and analysis.³² Legal research is also a fundamental lawyering skill necessary for the practice of law.³³ It is the lawyering skill that provides the knowledge necessary for other lawyering skills such as interviewing, writing, negotiation, and counseling.³⁴ When taught as a fundamental lawyering skill, legal research can reinforce and support learning of additional lawyering skills.³⁵ Creating a legal research program that teaches legal research as both a legal and a lawyering skill produces a course that can help students to visualize the responsibilities and values inherent in many of the roles being a lawyer encompasses.³⁶

For law schools to reap the benefits of a well constructed legal research course, it is necessary to reorganize the program so that it is integrated into the entire first-year curriculum, is taught as an iterative and analytic process of problem solving, includes information literacy, and is taught using the educational methods suggested by the Carnegie Report and Best Practices. Unless legal research is reorganized, law schools will continue to provide

Term "Lawyering," 101 LAW LIBR. J. 207, 215 (2009) ("'Lawyering' is the work of a specially skilled, knowledgeable, or experienced person who, **serving** by mutual agreement as another person's agent, **invokes** and **manipulates**, or **advises** about, the dispute-resolving or transaction-effectuating processes of the legal system for the purpose of solving a problem or causing a desired change in, or preserving, the *status quo* for his or her principal.").

29. Legal research generally covers the structure of the American legal system, primary authorities (including the ability to read them correctly – understanding the difference between dicta and holding, precatory language and statutory text) as well as the concepts of jurisdiction and stare decisis. *See* MACCRATE REPORT, *supra* note 27, at 152.
30. In analyzing the components of the skill of legal analysis and reasoning, the MACCRATE REPORT specifically suggests that the skill of legal research will be required for an attorney to identify and accurately formulate pertinent rules or principles of law bearing on factual situations. *Id.*
31. A legal research course designed to carefully incorporate and reflect the material students are studying in other classes supports the learning goals of those classes. *See infra* Part V.A.
32. *See supra* note 30 and accompanying text.
33. MACCRATE REPORT, *supra* note 27, at 135.
34. *Id.* at 136.
35. *Id.* at 163.
36. *See* BEST PRACTICES, *supra* note 4, at 22.

dangerously deficient research education and students will continue to be overwhelmed by the ocean of information they must manage, search within, and understand. In addition, law schools will be wasting an opportunity to provide not just a better research education, but a synergistic class that supports and reinforces other aspects of legal education. For law schools to succeed at re-envisioning their curriculum to educate students both to pass the bar and to practice, no law school class can be ignored. If first-year legal research courses continue to be taught as they generally are, schools will be squandering a class that has the potential both to better educate students in a necessary skill and do so in an environment reflecting the Carnegie Report's holistic vision of learning the law.³⁷

Legal research education must be re-imagined and rebuilt if it is to improve. This Article argues that law schools must recognize that current legal research education is dangerously deficient and understand that how legal research is taught is as important as the information covered. After the Introduction, the second section discusses the forces creating the need for law schools to rebuild their legal research courses.³⁸ It details the very serious repercussions the oceans of accessible legal information are having on legal thought and legal education.³⁹ The third section describes the current state of legal research education in U.S. law schools.⁴⁰ The next section argues that legal research must be recognized and taught both as a fundamental legal skill and as a fundamental lawyering skill.⁴¹ This portion of the piece also discusses the benefits to first-year legal education when legal research is taught as a fundamental skill.⁴² The fifth and final section provides four principles that provide a foundation upon which legal research programs can be rebuilt.⁴³ These principles allow legal research education in law schools to become part of the solution, not dead weight pulling students beneath the waves.

37. The CARNEGIE REPORT argues for a vision of “uniting, in a single educational framework, the two sides of legal knowledge . . . formal knowledge and . . . the experience of practice.” *Supra* note 3, at 12.

38. *See infra* Part II.

39. *See infra* Part II.

40. *See infra* Part III.

41. *See infra* Part IV.

42. *See infra* Part IV.

43. *See infra* Part V.

II. A PERFECT STORM FOR LAW SCHOOLS AND LEGAL RESEARCH EDUCATION

In the past, it was possible to overlook poor legal research education in law schools because the foundation of “the law” and the foundation for teaching law were one and the same.⁴⁴ The legal culture in which law schools immersed students mirrored both law practice and legal thought, both of which revolved around case law.⁴⁵ That situation has changed dramatically.⁴⁶ It is now clear that “intuitive, on-the-fly searching, supported by the familiar law of the digest system” is no longer enough.⁴⁷ It has not been “enough” for many years, but law schools have been slow to recognize the growing crisis in legal research, as they have been slow to recognize the growing crisis in lawyering skills training.⁴⁸ Today the situation is critical and cannot be fixed with small changes around the edges of how legal research is taught. Law schools must recognize the multiplicity of factors creating the perfect storm in legal research education so that they may take adequate steps to survive it.

A. *Students Failing to Learn Basic Research Skills*

Law schools are facing concerted and well-documented arguments that they are failing to teach the skills necessary to become a competent professional.⁴⁹ In 1989, the ABA convened a Task Force in response to the practicing bar’s allegations of a gap between law schools and the legal profession.⁵⁰ In 1992, this Task Force released the MacCrate Report,⁵¹ which identified the values and skills every lawyer should acquire before assuming responsibility for a client and surveyed ABA-approved law schools to determine the extent and availability of skills training schools actually provided.⁵² In 2005, in an attempt to increase the amount of skills courses available, the

44. See Robert C. Berring, *Collapse of the Structure of the Legal Research Universe: The Imperative of Digital Information*, 69 WASH. L. REV. 9, 12–13 (1994) [hereinafter Berring, *Legal Research Universe*] (describing analysis of case law and the Socratic method as the “twin roots of legal education and legal thinking”).

45. See *id.*

46. See *infra* Part II.D (discussing the paradigm shift in American legal thought).

47. Berring, *Legal Research Universe*, *supra* note 44, at 33.

48. See *infra* Part II.A.

49. See *infra* notes 54–58 and accompanying text.

50. MACCRATE REPORT, *supra* note 27, at xi, 3.

51. *Id.*

52. *Id.* at 135–36.

ABA altered its accreditation standards.⁵³ In 2007, the Carnegie Report⁵⁴ and Best Practices⁵⁵ reiterated the criticism that law schools were failing to teach lawyering skills and provided recommendations on how to restructure legal education.⁵⁶ The Carnegie Report suggested that legal education be structured around three apprenticeships: the intellectual or cognitive, the practical, and that of identity and purpose.⁵⁷ Best Practices applied education research and scholarship to legal education, distilling a set of “best practices” law schools should emulate when setting goals, organizing and delivering instruction, assessing student learning, and evaluating program success.⁵⁸

Besides general claims of a lack of professional skills education, law schools are consistently told that they are graduating students who cannot competently perform legal research.⁵⁹ Surveys, studies, and anecdotes from within and outside the academy have persistently documented the poor research skills of law students and graduates.⁶⁰ Concerns about poor student research skills will only increase given the growth in clinical education, the rise of the regulatory state, the impact of computer assisted legal research (CALR),⁶¹ the rise of accessible information, and the impact technology is having on legal research and on the law itself.⁶²

The Carnegie Report and others have positively cited internships, externships, and law school clinics as “bridges to practice” because they provide a chance to learn basic lawyering skills and allow the

53. See *supra* note 2.

54. CARNEGIE REPORT, *supra* note 3.

55. BEST PRACTICES, *supra* note 4.

56. *Id.* at 1–5; CARNEGIE REPORT, *supra* note 3, at 27–28.

57. CARNEGIE REPORT, *supra* note 3, at 27–28.

58. *Introduction* to BEST PRACTICES, *supra* note 4, at 1–5.

59. See Callister, *supra* note 6, at 9–10; Donald J. Dunn, *Why Legal Research Skill Declined, or When Two Rights Make a Wrong*, 85 LAW LIBR. J. 49, 49–53 (1993).

60. See Callister, *supra* note 6, at 9–11 (providing a list of references to poor research skills of law students and graduates); Dunn, *supra* note 59, at 49–53 (documenting the various “voices of concern” over student and graduate research capabilities).

61. Computer assisted legal research is often used to designate research done within fee-based databases such as Lexis Nexis, Loislaw, or Westlaw. However, given the rise of legal information on the web and the increase of non-legal information (found in both fee-based and free Internet databases) this article uses terms such as CALR, Internet research, and electronic research interchangeably. It is the effect of increased access to information, not the specific locus of that access, which is most important.

62. See *supra* Part II.C–D.

students to experience the profession prior to graduation.⁶³ These programs have grown significantly in the past few years⁶⁴ because of student requests and because they often provide the kind of educational experience called for by the MacCrate Report, the Carnegie Report, and Best Practices.⁶⁵ However, for students to be successful in these programs, they must be competent legal researchers, which not surprisingly, many students are not.

In a recent survey, lawyers and judges who routinely supervised law students in out-of-school placements were asked to indicate which of fifteen skills the supervisors found most lacking in law students at the beginning of the placement.⁶⁶ The skills were broken into categories such as Oral Communication, Writing and Drafting, Work Ethic, and Workplace Skills.⁶⁷ Three of the fifteen skills focused on legal research: the quality of research, the efficiency of research, and knowledge of available research resources.⁶⁸ Of the fifteen listed skills, eight made the list for at least one-fifth of the respondents.⁶⁹ All three skills in the legal research category were on this short list of skills in which students were found most deficient.⁷⁰ While small, this survey reflects the findings of others that have consistently indicated the legal research failings of law students and recent graduates.⁷¹

63. See, e.g., CARNEGIE REPORT, *supra* note 3, at 87–89; Joanne Martin & Bryant G. Garth, *Clinical Education as a Bridge Between Law School and Practice: Mitigating the Misery*, 1 CLINICAL L. REV. 443 (1994); Young & Blanco, *supra* note 7, at 107–08.

64. James H. Backman, *Practical Examples for Establishing an Externship Program Available to Every Student*, 14 CLINICAL L. REV. 1, 4–5 (2007) (discussing the growth of externships); Gerard J. Clark, *Supervising Judicial Interns: A Primer*, 36 SUFFOLK U. L. REV. 681, 681 (2003) (noting the rise of internships in the past quarter century); Robert MacCrate, *Educating a Changing Profession: From Clinic to Continuum*, 64 TENN. L. REV. 1099, 1129 (1997) (citing Task Force on Law Schools and the Profession, *Legal Education and Professional Development: An Educational Continuum*, 1992 A.B.A. SEC. LEGAL EDUC. AND ADMISSIONS TO THE BAR 6) (noting that the growth of the clinic movement is one of the most significant developments in legal education in the post-World War II era).

65. See, e.g., CARNEGIE REPORT, *supra* note 3, at 93–95.

66. See Young & Blanco, *supra* note 7, at 112–14. For purposes of the survey any off-campus placement designed to allow students to gain basic practice skills was considered an “externship.” See *id.* at 106 n.2.

67. *Id.* at 113–14.

68. *Id.* at 113.

69. *Id.* at 115.

70. *Id.* at 116.

71. *Supra* note 60 and accompanying text.

B. Expanding Requirements for Legal Research Competence

Added to this general lack of research ability is the need for law students to receive training generally not provided in their mandatory research classes. Law schools are beginning to restructure their curriculum, a process Harvard called “Rethinking Langdell” when its law faculty voted unanimously for the reform in 2006.⁷² This change is fueled in large part because regulations and statutes now play a more important role in the creation and elaboration of law than judicial opinions.⁷³ Then professor and now Dean, Martha Minow, who led Harvard’s effort to restructure its first-year curriculum, also indicated that the increasingly international dimensions of law also factored into restructuring the first year.⁷⁴ As law schools rethink and restructure first-year curriculums there must be a concomitant rebuilding of legal research education so it reflects and supports these changes.

A major change law schools are grappling with is the diminishing importance of case law in American jurisprudence.⁷⁵ The growth of the administrative state requires that all law schools provide students with training in statutory and regulatory research.⁷⁶ The move from private law to public law, the core of which is administrative law, has been called one of the greatest changes in legal practice in the past fifty years.⁷⁷ The MacCrate Report includes “Knowledge of the

72. *Rethinking Langdell: Historic Changes in 1L Curriculum Set Stage for New Upper-Level Programs of Study*, HARV. L. TODAY, Dec. 13, 2006, http://www.law.harvard.edu/news/today/dec_hlt_langdell.php [hereinafter *Rethinking Langdell*].

73. *Id.*; Leib, *supra* note 9, at 168 n.9 (listing schools that have moved to change their curriculum to include or require administrative and statutory law courses).

74. *Rethinking Langdell*, *supra* note 72. Technological advances in storing, managing, and accessing legal information are largely responsible for the environment that gave rise to these changes. The legal community would not cite international and foreign law were it not for its being easily accessible. *See, e.g.*, Barger, *supra* note 11, at 422–28 (2002) (stating that ease of access supports increased citation to Internet sources); Judge Cathy Cochran, *Surfing the Web for a “Brandeis Brief”: The Internet and Judicial Use of Legislative Facts*, 70 TEX. B.J. 780, 781 (2007) (stating that ease of finding information on the Internet has increased citation to nonlegal sources exponentially).

75. *See Rethinking Langdell*, *supra* note 72.

76. Judge Kristin Booth Glen suggests that both observers and practitioners of law realize that, after contracts, administrative law is the most commonly encountered legal subject in New York. Kristin Booth Glen, *Thinking Out of the Bar Exam Box: A Proposal to “MacCrate” Entry to the Profession*, 23 PACE L. REV. 343, 360 (2003).

77. Edward P. Richards, *Public Health Law as Administrative Law: Example Lessons*, 10 J. HEALTH CARE L. & POL’Y 61, 61 (2007).

Fundamentals of Advocacy in Administrative and Executive Forums” as one of the skill sets comprising the skills of Litigation and Alternative Dispute-Resolution Procedures.⁷⁸ The report also recognizes that administrative research skills are necessary for practice in these forums.⁷⁹ The federal government has made its regulatory process more transparent and accessible through web sites such as “GPO Access” and “Regulations.gov.”⁸⁰ State and federal agencies have large web presences, and the general public is routinely invited to comment on proposed regulatory action.⁸¹ With increasing public access to agency rules and procedures, law schools must provide students with baseline education in researching administrative and regulatory processes.

While law schools are beginning to restructure their first-year classes to reflect the need to provide more education in statutory and administrative law, legal research courses have not kept pace.⁸² First-year legal research and writing classes generally do not cover regulatory research.⁸³ This failure is intensified as many law school

78. MACCRATE REPORT, *supra* note 27, at 191, 195–96.

79. *Id.* at 191, 196.

80. GPO Access, <http://www.gpoaccess.gov/> (last visited Sept. 28, 2009); Regulations.gov, <http://www.regulations.gov/search/Regs/home.html#home> (last visited Sept. 28, 2009).

81. Regulations.gov, *supra* note 80 (follow “submit a comment” hyperlink). *See, e.g.*, Maryland Department of the Environment, <http://www.mde.state.us/aboutMDE/reqcomments.asp> (last visited Sept. 28, 2009) (Maryland Department of the Environment request for comments regarding proposed regulations).

82. *See* Leib, *supra* note 9, at 186. Legal research classes often emphasize federal statutory research, failing to adequately train students in state-specific research instruction. *See* Victoria K. Trotta & Beth DiFelice, *State-Specific Legal Research Instruction: Curricular Stepchild or Core Competency?*, 28 LEGAL REFERENCE SERV. Q. 151, 153–55 (2009).

83. Brooklyn Law School is typical in how it teaches legal research. Legal writing faculty teach first-year students legal research and the courses do not cover legislative history or administrative research. Only by taking advanced legal research courses taught by librarians will students learn to research state and federal legislative history, administrative law, news and business sources, advanced computerized legal sources, and international and foreign law. Carrie W. Teitcher, *Rebooting the Approach to Teaching Research: Embracing the Computer Age*, 99 LAW LIBR. J. 555, 556 n.7 (2007); *see also* Lucia Ann Silecchia, *Designing and Teaching Advanced Legal Research and Writing Courses*, 33 DUQ. L. REV. 203, 211 (1995) (noting that many law schools' first-year programs do not cover loose-leaf services, legislative history, or administrative regulations); James R. P. Ogloff et al., *More Than “Learning to Think Like a Lawyer:” The Empirical Research on Legal Education*, 34 CREIGHTON L. REV. 73, 183 (2000) (citing the rise in statutory and administrative law as driving the need to supplement first-year legal research).

clinics involve heavily regulated fields such as public benefits (*e.g.*, social security, food stamps, unemployment benefits), asylum and immigration, environmental law, and workers' rights.⁸⁴ In addition, many clinics, especially those dealing with immigration or human rights, confront issues of international or foreign law requiring new and different legal research skill sets.

Globalization has profoundly impacted legal education, the legal profession, and has "permeated and deeply influenced" legal literature.⁸⁵ United States courts are increasingly citing foreign and international sources,⁸⁶ which will likely continue as non-domestic legal information becomes easier to access via the Internet. The explosion of international law courses over the past two decades also reflects the globalization of law.⁸⁷ While most of these courses are upper level electives, schools such as Harvard, Michigan, and Georgetown now require first-year law students take a course addressing some aspect of international law, foreign institutions, or the impact of globalization.⁸⁸ Globalization of law has also led to increases in the number of law schools offering summer abroad and dual degree programs with international law schools, as well as increased cross-border legal practice.⁸⁹ As law schools further

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84. See Margaret Martin Berry, Jon C. Dubin & Peter A. Joy, *Clinical Education for this Millennium: The Third Wave*, 7 CLINICAL L. REV. 1, 57 (2000).
85. Claire M. Germain, *Legal Information Management in a Global and Digital Age: Revolution and Tradition*, 35 INT'L J. LEGAL INFO. 134, 138 (2007). Germain defines globalization as "the process of integrating nations and peoples—politically, economically, and culturally—into a larger community." *Id.* at 137.
86. See, *e.g.*, Steven G. Calabresi & Stephanie Dotson Zimdahl, *The Supreme Court and Foreign Sources of Law: Two Hundred Years of Practice and the Juvenile Death Penalty Decision*, 47 WM. & MARY L. REV. 743, 753 (2005) (finding that while the Supreme Court's citation to foreign law is increasing, it is not unprecedented).
87. See Deborah Jones Merritt & Jennifer Cihon, *New Course Offerings in the Upper-Level Curriculum: Report of an AALS Survey*, 47 J. LEGAL EDUC. 524, 537 tbl.2 (1997) (finding that the addition of international and comparative law courses outpaced all other subjects).
88. See *Rethinking Langdell*, *supra* note 72 (stating that Harvard's new curriculum requires students to select one of three courses addressing global legal systems); Toni M. Fine, *Reflections on U.S. Law Curricular Reform*, 10 GERMAN L.J. 717, 736 (2009) (listing some of the American schools that offer first-year courses addressing global aspects of law). In 2006 the Association of American Law Schools held a workshop on Integration Transnational Legal Perspectives. AALS, Annual Meeting Program, <http://www.aals.org/am2006/program/transnational/index.html> (last visited Sept. 28, 2009).
89. See James P. White, *A Look at Legal Education: The Globalization of American Legal Education*, 82 IND. L.J. 1285, 1287–89 (2007).

integrate international and foreign law into their first-year curriculums, first-year students must be introduced to some of the basic concepts of international and foreign legal research.⁹⁰

In addition, first-year law students need to be made aware of the importance of nonlegal research. Judges are increasingly citing to nonlegal sources in their opinions.⁹¹ Practitioners are doing far more than researching cases, statutes, and regulations.⁹² Even small firms and solo practitioners are conducting more audience, business, and science research than in the past.⁹³ A law student who learns to locate experts, find reliable and useful scientific information, or track emerging areas of law is being prepared for what lawyers do in practice.⁹⁴ The growth in nonlegal research is due to the type of information that the Internet and CALR makes possible, and what is possible quickly becomes a necessity.⁹⁵ While it may not be possible

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90. See Chimène I. Keitner, *Conceptualizing Complicity in Alien Tort Cases*, 60 HASTINGS L.J. 61, 99 (2008) (opining that indeterminacy of international law increases need for U.S. lawyers and judges to be trained in comparative and international law principles and research methods); see also Hutchinson, *supra* note 10, at 1080 (noting that law schools must ensure that graduates are skilled not only at researching the law in their own jurisdiction but also in international and comparative law). Providing an overview in international or foreign law legal research provides the same supports for learning the doctrine in these areas as general legal research does for students attempting to learn American law.
91. Barger, *supra* note 11, at 420–21 (2002) (stating that modern courts commonly cite to nonlegal sources and, not surprisingly, they have started to rely on the Internet as a means to find nontraditional sources); Frederick Schauer & Virginia J. Wise, *Nonlegal Information and the Delegalization of Law*, 29 J. LEGAL STUD. 495, 497 (2000) (noting that judicial citation to nonlegal sources increased dramatically since 1990 even as number of citations remained relatively constant).
92. See Schauer & Wise, *supra* note 91, at 510.
93. See Alvin M. Podboy, *The Shifting Sands of Legal Research: Power to the People*, 31 TEX. TECH. L. REV. 1167, 1179 (2000) (discussing the need for research on judges, clients, and the sponsors of legislation, as well as tracking issues on a global scale); Thomas Michael McDonnell, *Playing Beyond the Rules: A Realist and Rhetoric-Based Approach to Researching the Law and Solving Legal Problems*, 67 UMKC L. REV. 285 (1998) (arguing that practicing lawyers, research legal decision makers, and law school legal research classes must introduce students to this type of research).
94. Randy Diamond, *Advancing Public Interest Practitioner Research Skills in Legal Education*, 7 N.C. J.L. & TECH. 67, 74–75 & n.20 (2005) (describing the use of a mold litigation case study to increase law student research skills).
95. See Lawrence Duncan MacLachlan, *Gandy Dancers on the Web: How the Internet Has Raised the Bar on Lawyers' Professional Responsibility to Research and Know the Law*, 13 GEO. J. LEGAL ETHICS 607, 645–47 (2000) (arguing that as information on the Internet becomes increasingly “judicially noted” it creates a presumptive knowledge of public information); Podboy, *supra* note 93, at 1179 (noting that the increase in accessible nonlegal information has changed attorney legal research).

to provide in-depth education on what once might have been considered fairly esoteric types of research, first-year students must be provided with some basic knowledge on which to build their skills once out of the first year of school.⁹⁶ The breadth of research that attorneys undertake has grown dramatically, and legal research courses must respond if schools are to produce students prepared to practice law.⁹⁷

Many schools have begun to offer advanced legal research classes as a way to address the shortcomings of first-year legal research education.⁹⁸ However, law students begin working during the summer after their first year and need legal research skills then.⁹⁹ Requiring that students wait until their second or third year of school to learn fundamental research skills is unacceptable. Students often view their first legal jobs as crucial to employment the following summer and failure is seen as a setback for securing future work.¹⁰⁰ In addition, ill prepared students are liable to flounder during summer placements wasting precious time, losing confidence, and ultimately reflecting poorly on their school.¹⁰¹ Such students will not be the ambassadors to placements that schools need to ensure further placements, and may in fact be an embarrassment.¹⁰² The reverse is

96. For a discussion of how even relatively simple exercises in a class can lay the foundation for important fundamentals that can be further explored in upper level courses, see Charles R. Calleros, *Introducing Students to Legislative Process and Statutory Analysis Through Experiential Learning in a Familiar Context*, 38 GONZ. L. REV. 33, 41 (2002–2003).

97. See, e.g., Diamond, *supra* note 94, at 118–19 (“Remedying poor legal research habits, cultivating advanced research skills, and coping with negative research conditions require broader exposure throughout the law school curriculum than stand-alone advanced legal research courses can provide.”).

98. See Silecchia, *supra* note 83, at 210–11 (explaining that advanced research training is needed because many of the necessary skills are not covered in the first year).

99. See Young & Blanco, *supra* note 7, at 111.

100. Ian Gallacher, *Forty-Two: The Hitchhiker's Guide to Teaching Legal Research to the Google Generation*, 39 AKRON L. REV. 151, 171 (2006).

101. Young & Blanco, *supra* note 7, at 111–12.

102. [A] more basic concern is that the student is sent into the legal community as a representative of the law school. A student who is not adequately prepared to enter the professional law office or judicial chambers risks making mistakes that could be embarrassing to her and also to the school. While a well prepared extern could pave the way for many more successful placements, a student who disappoints a field supervisor could harm the prospects for future student placements from the same institution.

Id.; see also Gallacher, *supra* note 100, at 171 (“Students not only represent themselves when they seek summer work, they represent their law schools as well. It

also true; students with solid legal research skills will be more confident, have more time to focus on the legal analysis and writing aspects of their assignments, and will reflect positively on their law school.

Further, advanced legal research classes are rarely mandatory and enrollment is often severely limited.¹⁰³ This forces clinics and externship placement programs to teach entirely new research skills rather than merely assisting students to review material covered in their first-year research classes.¹⁰⁴ Thus, valuable educational time in which students could be introduced to those lawyering skills not taught at all in the first-year curriculum is wasted on material that should have already been taught. It also means students who do not participate in a clinic or externship, or do not take advanced legal research classes, will graduate lacking adequate understanding of regulatory research or even cursory knowledge of nonlegal research or the structures of legal institutions outside the United States.

C. *Researching in a Technological Environment*

Deficient regulatory research skills, a complete lack of information about international legal research, and ignorance of nonlegal research are not the only hurdles first-year law students must overcome. Layered onto and intertwined with these challenges are the added affects of the explosion of easily accessible information in free and fee-based Internet databases.¹⁰⁵ The amount of retrievable information—both useful and worthless—can overwhelm the most determined legal researcher. To complicate matters further, students face a bewildering and growing choice of tools with which to retrieve and manage these staggering amounts of information, and there is no

is a legal research program's responsibility to ensure that both student and school are seen in the best possible light and that, in turn, mandates that legal research be taken seriously in the first year of law school.”).

103. Ann Hemmens, *Advanced Legal Research Courses: A Survey of ABA-Accredited Law Schools*, 94 LAW LIBR. J. 209, 223 (2002) (explaining that three-quarters of those responding limited the class to twenty students or less).

104. See, e.g., Diamond, *supra* note 94, at 68–70 (noting that most legal research classes do not teach practitioner research skills and arguing that advanced legal research courses should be interconnected with clinics). As suggested by Calleros, even small discussions of fundamental concepts can pave the way for more in-depth learning later in law school. See Calleros, *supra* note 96, at 41. However if material is entirely and completely new, students have a much harder time learning it, especially given the time constraints of a summer placement.

105. Paul Beneke, *Brutal Choices in Curricular Design, Give Students Full CALR Access Immediately*, 8 NO. 3 PERSP. TEACHING LEGAL RES. & WRITING 114 (2000).

indication that the pace of change is going to slow anytime soon.¹⁰⁶ Today's students arrive at law school often bereft of any research skills except the ability to "Google."¹⁰⁷ This means that "[l]egal research programs today face the challenge of teaching research technique to students who might have neither the experience nor the vocabulary to properly understand fundamental research concepts."¹⁰⁸ This is a challenge not unlike that faced by legal writing instructors who are expected to teach successful legal writing when they must first teach basic writing skills.¹⁰⁹

The Internet and other electronic mediums have made teaching legal research far more difficult than it was in the past for several reasons. First, the sheer volume of easily available information makes locating useful information harder.¹¹⁰ Second, the concept of a conscious, thoughtful, articulable research process has been disrupted by the ease of typing one or two words into a search engine and being rewarded with pages of results.¹¹¹ "The Internet makes it ungodly easy now for people who wish to be lazy,"¹¹² and the same can be said of fee-based electronic legal research systems that encourage non-Boolean searching. This lack of careful researching skills is coupled with students who arrive at law school overly confident in their research abilities, specifically their Internet research abilities.¹¹³

106. Sanford N. Greenberg, *Legal Research Training: Preparing Students for a Rapidly Changing Research Environment*, 13 LEGAL WRITING J. LEGAL WRITING INST. 241, 250 (2007).

107. See Thomas Keefe, *Teaching Legal Research from the Inside Out*, 97 LAW LIBR. J. 117, 119 (2005) ("Because recent college graduates grew up using online resources exclusively, our attempt to impose the 'system' required for print-based research on them leaves students asking: 'Why do I need print? I have a system, it's called Google.'").

108. Gallacher, *supra* note 100, at 205.

109. Douglas Laycock, *Why the First-Year Legal-Writing Course Cannot Do Much About Bad Legal Writing*, 1 SCRIBES J. LEGAL WRITING 83, 83 (1990).

110. See, e.g., Robert C. Berring, *Technology and the Standard of Care for Legal Research*, 3 LEGAL MALPRACTICE REP. 21, 21 (1992) ("The advent and growth of electronic databases as well as the explosive expansion of the types of materials used in legal research have combined to make the legal research process both more difficult and more dangerous.").

111. See Keefe, *supra* note 107, at 122.

112. Laura Sessions Stepp, *Point. Click. Think?; As Students Rely on the Internet for Research, Teachers Try to Warn of the Web's Snares*, WASH. POST, July 16, 2002, at C1.

113. See Ian Gallacher, "Who Are Those Guys?": *The Results of a Survey Studying the Information Literacy of Incoming Law Students*, 44 CAL. W. L. REV. 151 (2007) (discussing a survey that suggests that incoming law students overestimate their

Third, students are convinced their nonlegal research skills will easily translate into legal research success and they are impatient with anything other than systems such as Westlaw and Lexis once in law school.¹¹⁴ All of this culminates in a belief that they are successful with electronic researching even when confronted with proof to the contrary.¹¹⁵

Additionally, but less obviously, the rise of the Internet, the shift to CALR, and the almost complete automation of the law have more far reaching consequences. This confluence has the potential to undermine legal education. Law schools still teach legal analysis using the principles and methods developed in the 19th century,¹¹⁶ which reflect and depend on “the law” as stable, built on precedent, and with a knowable, discernable, and well-understood structure.¹¹⁷ However, this legal structure is being eroded by the tide of technology that is embraced by this generation of law students.¹¹⁸

D. Legal Reasoning in a Technological Environment

American law, and more importantly, American legal education has historically been set within what Professor Robert Berring calls

research skills and arguing that law schools must address student information illiteracy); Cathaleen A. Roach, *Is the Sky Falling? Ruminations on Incoming Law Student Preparedness (and Implications for the Profession) in the Wake of Recent National and Other Reports*, 11 LEGAL WRITING J. LEGAL WRITING INST. 295, 296 (2005) (referencing an unpublished AALL survey that indicates that even law students at top law schools arrive with inadequate basic research skills).

114. Berring, *Thinkable Thoughts*, *supra* note 13, at 313 (describing computer savvy students as being impatient with resources other than electronic resources).

115. 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, 676 (2005) (finding that students were “unflappable” in their belief that terms and connectors searching in Westlaw and Lexis Nexis was the most effective form of research even when confronted with evidence to the contrary).

116. See Jason M. Dolin, *Opportunity Lost: How Law School Disappoints Law Students, the Public, and the Legal Profession*, 44 CAL. W. L. REV. 219, 222 (2007) (noting that law schools continue to use methods and casebooks that replicate Langdell’s methods); Kate O’Neill, *But Who Will Teach Legal Reasoning and Synthesis?*, 4 J. ASS’N LEGAL WRITING DIRECTORS 21, 23 (2007) (stating that explicit instruction in legal reasoning shifts to the “skills” portion of first-year curriculums).

117. See Curtis E. Harris, *An Undue Burden: Balancing in an Age of Relativism*, 18 OKLA. CITY U. L. REV. 363, 375 (1993).

118. See Robert C. Berring, *Legal Research and Legal Concepts: Where Form Molds Substance*, 75 CAL. L. REV. 15 (1987); Nazareth A.M. Pantaloni III, *Legal Databases, Legal Epistemology, and the Legal Order*, 86 LAW LIBR. J. 679, 680 (1994).

the universe of “thinkable thoughts.”¹¹⁹ This universe was created by the legal classification system developed by Blackstone’s *Commentaries*, which was adopted by Dean Christopher Langdell as he developed Harvard Law’s first-year curriculum.¹²⁰ The boundaries of this legal universe of thought were then solidified by the West digest system, which U.S. lawyers adopted as their classification system for finding the law.¹²¹ West’s digest system took on greater importance and became more entrenched as case law continued to expand.¹²² Without the digest system and its taxonomic hierarchies of topics and subtopics, it is very likely the American common law system would not have survived so well, for so long.¹²³ The topics and subtopics of the digest became the organizing structure that generations of lawyers, judges, law professors, and law students used to understand and order American law.¹²⁴

Classification is a “top-down” approach to organizing a body of information according to a “conceptual scheme” or set of general principals.¹²⁵ It is also a format that has allowed information management devices such as the digest system¹²⁶ to create a general understanding of “the law” as a self-contained system wholly apart from other disciplines.¹²⁷ Both of these concepts reinforced Langdell’s view that law was a science consisting of doctrines arrived at by studying the growth of case law over time.¹²⁸

119. Berring, *Thinkable Thoughts*, *supra* note 13, at 311.

120. *Id.* at 309.

121. *Id.*

122. See F. Allan Hanson, *From Key Numbers to Keywords: How Automation Has Transformed the Law*, 94 LAW LIBR. J. 563, 568 (2002).

123. *Id.* (explaining that West’s key number system “eased the burden of coping with the growing mass of published information to the extent that . . . [it] may be largely responsible for rendering the common law manageable enough to survive in the United States”) (quoting GEORGE S. GROSSMAN, *LEGAL RESEARCH: HISTORIC FOUNDATIONS OF THE ELECTRONIC AGE* 79 (1994)).

124. Berring, *Cognitive Authority*, *supra* note 15, at 1693.

125. Hanson, *supra* note 122, at 574.

126. There have always been other information management devices such as *Shepard’s*, the *Restatements*, treatises, and legal encyclopedias, but because their purpose was to provide context to common law, they were developed around the same general principles articulated by the legal classification system begun by Blackstone and were hardened into the rigid structures of the West Topic and subtopic orderings. See *id.*

127. *Id.* at 571.

128. Jessica J. Sage, *Authority of the Law? The Contribution of Secularized Legal Education to the Moral Crisis of the Profession*, 31 FLA. ST. U. L. REV. 707, 715 (2004) (citing HERBERT W. TITUS, *GOD, MAN, AND LAW: THE BIBLICAL PRINCIPLES* 4 (1994)).

Langdell's attraction to law as a science stemmed in part from his attraction to growth, structure, and classification.¹²⁹ If Langdell's law student was to derive the "scientific truth" from the law by reading appellate decisions,¹³⁰ it was necessary to have a classification system that allowed students to access those decisions in a structured and formalistic way. Even critics of Langdell's concept of law as a scientific endeavor recognized the pedagogical need for legal classification.¹³¹

Dean Langdell's first-year curriculum at Harvard—contracts, torts, civil procedure, criminal law, and property—was widely copied by other American law schools.¹³² It was also reflected in the major topic headings chosen by West to order the digest system,¹³³ a system endorsed by the ABA in 1898.¹³⁴ This confluence of events—Langdell's scientific approach to law enshrined at Harvard and West's digest system endorsed by the premier professional association of American lawyers—ensured that the analytic study of law became inherently intertwined with the classification system used to order and locate appellate decisions.¹³⁵ Put another way, the convergence of the methods of organizing and retrieving law with the birth of the American system of legal education created a legal system in which legal analysis was inextricably linked to legal

129. See Laura I Appleman, *The Rise of the Modern American Law School: How Professionalization, German Scholarship, and Legal Reform Shaped Our System of Legal Education*, 39 NEW ENG. L. REV. 251, 285 (2005).

130. *Id.* at 286–87.

131. For example, as noted professor and Dean of Harvard Law School, Roscoe Pound said, "it is well to bear in mind that the teacher is not (or ought not to be) teaching classification. He is teaching law, and he uses that classification which will enable him to teach law most effectively." Roscoe Pound, *Classification of Law*, 37 HARV. L. REV. 933, 940 (1924); see also Thomas C. Grey, *Langdell's Orthodoxy*, 45 U. PITT. L. REV. 1, 47 (1983) ("For the critics, conceptual ordering was not, as in classical orthodoxy, a form of scientific discovery, but rather a pragmatic enterprise, to be judged by its success in achieving its practical ends. . . . Its main importance, however, is pedagogic: a newcomer to the law needs an overview of its main doctrines, stated in oversimplified but readily comprehensible form.").

132. Kuh, *supra* note 15, at 236.

133. *Id.*; Fritz Snyder, *The West Digest System: The Ninth Circuit and the Montana Supreme Court*, 60 MONT. L. REV. 541, 544 (1999).

134. Richard Delgado & Jean Stefancic, *Why Do We Tell the Same Stories?: Law Reform, Critical Librarianship, and the Triple Helix Dilemma*, 42 STAN. L. REV. 207, 215 (1989).

135. Hanson, *supra* note 122, at 570–71 (stating that lawyers trained in the Langdellian approach to law and immersed in the West digest system during legal research came to mistake the classification systems for the intrinsic structure of the law).

research. One's ability to learn to think like a lawyer was firmly based in how law was framed, ordered, and located. The digest system became "the physical manifestation of 'thinking like a lawyer.'"¹³⁶

Although strained by the growth of American case law, this linkage between legal analysis and legal research remained intact until the advent of computerized legal research.¹³⁷ The automation of the law and the explosion of easily accessible legal information created a fundamental shift in how lawyers (and law students) located, accessed, and sorted legal information.¹³⁸ Changing how legal information is located, accessed, and sorted has had a radical and lasting impact on how the law is conceptualized and applied.¹³⁹ The ability to electronically search and access law has created a "paradigm shift"¹⁴⁰ that has affected the very structure of the law as it has been understood and taught for more than a century.¹⁴¹

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136. Barbara Bintliff, *From Creativity to Computerese: Thinking Like a Lawyer in the Computer Age*, 88 LAW LIBR. J. 338, 343 (1996); see also Robert C. Berring, *Full-Text Databases and Legal Research: Backing into the Future*, 1 HIGH TECH. L.J. 27, 54 (1986) [hereinafter Berring, *Backing into the Future*] (explaining that the West digest system was an "internal, mediating structure within the old mode of discourse").
137. See generally 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, 919, 922 (2008–2009) (suggesting that the demise of the West paradigm for organizing the law resulted in large part from the rise of computerized legal research).
138. *Id.* at 931–32.
139. Professor Kuh states that "finding the raw materials of law through the legal research process drives the legal enterprise and the development of the law, informing and shaping the arguments and decisions that attorneys make as advisers, gatekeepers, adversaries, and judges." Kuh, *supra* note 15, at 226. Kuh delineates a series of changes in the law occurring as a direct result of the shift to an electronic medium for researching the law. *Id.*; see also Ethan Katsh, *Law in a Digital World: Computer Networks and Cyberspace*, 38 VILL. L. REV. 403, 442–43 (1993) (stating that new forms of access to information allow users to do things differently than before, which leads to changes in values and institutions built on obsolete technologies).
140. Bast & Pyle, *supra* note 15, at 285 (article entitled *Legal Research in the Computer Age: A Paradigm Shift?*); Berring, *Backing into the Future*, *supra* note 136, at 38 (calling the advent of Lexis Nexis and Westlaw the "new paradigm"); see also Peter Alldridge & Ann Mumford, *Gazing into the Future Through a VDU: Communications, Information Technology, and Law Teaching*, 25 J. LAW & SOC'Y 116, 121–26 (1998) (discussing the effect computers and information technology will have on the jurisprudential paradigms underpinning legal education).
141. Berring, *Cognitive Authority*, *supra* note 15, at 1679, 1691. Berring calls this "The Long, Stable Century" when legal research was dominated by case law and the West digest system. *Id.* at 1691–92, 1694. He dates its end in the 1990s with the "[t]hree

The consequences of the automation of legal research are numerous, well documented, and strike at the heart of legal analysis.¹⁴² More than one author has suggested that automated legal research threatens the force of precedent, one of the cornerstones of the American legal system.¹⁴³ As early as 1995, Judge Edith H. Jones warned of the enormous cost of the “promiscuous growth of published precedent,” which, she argued, decreased the predictability of the law.¹⁴⁴ The ability to locate more authority (both primary and secondary), across more jurisdictions, creates a situation where “the coin of judicial precedent has been debased”¹⁴⁵ and the “delegalization of law” has begun.¹⁴⁶ This has been described as the

spikes” of a changing user environment, corporate consolidation, and the Internet. *Id.* at 1696.

142. See, e.g., Bast & Pyle, *supra* note 15, at 285; Hanson, *supra* note 122, at 563; Kuh, *supra* note 15, at 224, 226.
143. Hanson, *supra* note 122, at 580 (stating that automated research is more likely to turn up novel cases considered as precedent than use of West digest system); Berring, *Legal Research Universe*, *supra* note 44, at 28 (arguing that with the rise of CALR and automated information storage and retrieval, “[w]hatever linear nature precedent could once claim is now gone”); Bernard E. Jacob, *Ancient Rhetoric, Modern Legal Thought, and Politics: A Review Essay on the Translation of Viehweg's “Topics and Law,”* 89 NW. U. L. REV. 1622, 1674 (1995), stating:

A precedent system turns out to be sensitive to volume and bulk; in most forms of private law adjudication, even in fields such as tax and securities law where a certain elitist formalism has tended to prevail, the possibility of using precedents effectively seems to have been swamped by the number of cases, the number and varieties of jurisdictions handing out judgments, and the information technologies that are ever more efficient in giving us (all too) adequate access to these materials.
144. Edith H. Jones, *Back to the Future for Federal Appeals Courts: Rationing Federal Justice by Recovering Limited Jurisdiction*, 73 TEX. L. REV. 1485, 1495 (1995). Judge Jones of the United States Court of Appeals for the Fifth Circuit, pointed to increased judicial discretion and decreased predictability of legal outcomes as the primary result of publishing more cases. *Id.* While Jones’ insights were in the context of caseloads and unpublished opinions, her point is applicable no matter what the cause of the increase in accessibility to cases and legal information. The more cases that can be found (and more are found using technology) the greater the impact those cases have on the process of weakening the structure of precedent.
145. Berring, *Legal Research Universe*, *supra* note 44, at 29.
146. Schauer & Wise, *supra* note 91, at 497 (defining delegalization as the increase in reliance on nonlegal information in court decisions and arguing that it has profound implications for how law is understood); see also John J. Hasko, *Persuasion in the Court: Nonlegal Materials in U.S. Supreme Court Opinions*, 94 LAW LIBR. J. 427 (2002) (noting the growing tendency of courts to rely on nonlegal material in legal reasoning and problem solving).

“relaxation of the hierarchical distinctions among primary, secondary, and tertiary source materials”¹⁴⁷ and evidence of “the diminishing autonomy of the law.”¹⁴⁸

If “what counts as a good legal authority is the determinant and not just the indicator of what law is,”¹⁴⁹ then concepts of precedent and authority are diluted. The very act of accessing the law electronically restructures the law. It erodes the idea that one can learn the law from the scientific study of readily agreed upon precedent. As the historical understanding of law shifts, the ability to teach students to think like lawyers using the structured concepts of the legal system developed by Langdell and West begins to collapse.¹⁵⁰

Beyond the weakening of precedent, there are additional aspects to the paradigm shift caused by the automation of law that will affect students’ ability to learn legal reasoning. One of these is the shift from thinking about the law in terms of general principles and rules to thinking about it in terms of factual similarities.¹⁵¹ This shift is directly linked to the ease of word searching in electronic databases,¹⁵² something that removes the searcher from the classic

147. Hanson, *supra* note 122, at 584. This “relaxation” is due in part to the growth in access to secondary sources. *Id.*

148. *Id.* at 588 (citing Richard A. Posner, *The Decline of Law as an Autonomous Discipline: 1962-1987*, 100 HARV. L. REV. 761, 769 (1937)).

149. Frederick Schauer, *Authority and Authorities*, 94 VA. L. REV. 1931, 1960 (2008).

150. See Kuh, *supra* note 15, at 236 (linking the changes created by the advent of electronic legal research to recent moves away from traditional Langdellian legal education).

151. See Bintliff, *supra* note 136, at 339 (moving from a rule or concept-based system to a fact-based system); Hanson, *supra* note 122, at 583 (suggesting a reorientation of the organization of law from that of general principles to surface level factual similarities).

152. Word searching is often called “key word” searching. Unfortunately, all too often the words chosen are not “key,” but merely those suggested by the facts. Word searching, by its very nature, increases the likelihood that researchers will search for facts rather than general legal principles. Facts are much easier to search for than vague or complex concepts and rules, which can be written a number of ways or merely implied by a court. That automation increases the likelihood of fact-based searches has been discussed at length. See Berring, *Backing into the Future*, *supra* note 136, at 48 (discussing a study on full text searching and contrasting the difficulty of matching words to ideas and matching words to specific factual situations); Bintliff, *supra* note 136, at 348 (searching for concepts returns too many cases, which leads searchers to avoid those searches and look for facts); Delgado & Stefancic, *supra* note 134, at 221 (1989) (CALR excels at finding facts, but is less useful in finding cases that illustrate or discuss more complex or abstract concepts). This is not meant to suggest that one cannot find rules or general legal principles with word searches. See Peoples, *supra* note 115, at 674–75 (indicating that students can be successful at finding legal rules

framework of the law and allows her to become the sole arbiter of how the law should be structured.¹⁵³ Word searching, regardless of whether it is done to find facts or general principles, "conveys a sense of the law's organization as shallow and loose," which inhibits the searcher's impetus to seek out overarching legal principles within which to base legal arguments.¹⁵⁴ A law student being trained to think within the structures created by Langdell and West but who locates, accesses, and manipulates law using electronic means, cannot help but be confused and disconcerted by the disconnect between the two modes of thinking.

Along with changing how we research law, CALR changes what we find, which also has far reaching consequences. For example, researchers using electronic systems to find case law locate both more and different cases than they do using print sources.¹⁵⁵ According to Professor Kuh this leads to the articulation of a larger variety of legal theories and arguments, which in turn will lead to the advancement of "marginal cases, theories, and arguments" by careless attorneys.¹⁵⁶ She argues that electronic research exacerbates the inherent tendency for a researcher to seek out information supportive of a legal assumption, and to avoid or dismiss information that challenges that assumption.¹⁵⁷ This also increases the chance that a researcher will rely on moribund cases, incorrectly distinguish cases, and be less able to recognize faults in cases or legal theories located during research.¹⁵⁸

with electronic searches), only that the system itself increases the likelihood that fact-based searches will predominate.

153. See Berring, *Backing into the Future*, *supra* note 136, at 54–55 (arguing that free text searching "deprives the researcher of context," and that information is presented in an arbitrary fashion, both of which weaken the structure of the law); Bintliff, *supra* note 136, at 345 ("When we use computers as our primary research tool, we neither start with, nor reliably retrieve, a coherent statement of applicable rules. We don't have a framework to which to refer, as we do with a digest.").

154. Hanson, *supra* note 122, at 584.

155. See Kuh, *supra* note 15, at 247–49. This is due not only to the massive amount of documents available in electronic databases but also because of the ability to follow links from one case or document to another, thus retrieving material that did not appear in the initial search. *Id.*

156. *Id.* at 261. Kuh argues that cognitive behavior principles including "Confirmatory Bias" and "Selective Information Processing" affect our use of computerized information. *Id.* at 254.

157. *Id.* (basing her arguments on studies of cognitive behavioral theory).

158. *Id.* at 262–65. This is one of the most important reasons for teaching legal research as an iterative process of problem solving. See *infra* section V.B.

Kuh is not alone in this assessment. Some have argued that technology can lead to “law-byte” research where researchers are discouraged from taking the time to analyze the wisdom and applicability of the cases they find.¹⁵⁹ Pointing out that “[c]reative problem solving depends on context, interrelationships, and experience,”¹⁶⁰ Professor Bintliff suggests that electronic researching has the potential to undermine the process of legal reasoning.¹⁶¹ Yet another commentator suggests that cyberspace has created a new legal environment, “that is less fixed, less structured, less stable and, consequently, more versatile and volatile.”¹⁶² Professor Berring has a more positive view suggesting that increased legal information will encourage the type of pluralistic legal discourse proponents of legal realism already say exists.¹⁶³

It remains to be seen whether the greater number of legal theories that can be found, argued, and advanced creates something like Berring’s pluralistic legal discourse or a more foreboding legal environment where precedent is weakened, the primacy of legal authority crumbles, and everyone plays to judicial bias.¹⁶⁴ Nevertheless, it is obvious that the rise of the Internet and the automation of legal research are having a profound impact on the law.¹⁶⁵ It is axiomatic that it would likewise have an affect on how students learn the law. The disjunction caused by the shift in legal paradigms must be addressed in the first year of law school and it must be addressed in legal research. Unfortunately, most legal research courses do not provide students with the instruction and education necessary to understand the impact of the paradigm shift in legal thinking created by technology.

159. Lien, *supra* note 15, at 89. This is not unlike the “threat of the available” which is the tendency in thinking and study to turn to the most available material and to use that material exclusively. 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, 182 (2003) (quoting Karl N. Llewellyn, *Legal Tradition and Social Science Method—A Realist’s Critique*, in ESSAYS ON RESEARCH IN THE SOCIAL SCIENCES 89, 95–96 (1931)).

160. Bintliff, *supra* note 136, at 348 (quoting CLIFFORD STOLL, SILICON SNAKE OIL: SECOND THOUGHTS ON THE INFORMATION HIGHWAY 134 (1995)).

161. *Id.*

162. Katsh, *supra* note 139, at 406.

163. Berring, *Backing into the Future*, *supra* note 136, at 56.

164. Several authors suggest that CALR, with its huge databases of legal information and highly customized searching, facilitates an ability to craft arguments to appeal to judicial bias. See *id.*; Hanson, *supra* note 122, at 580–81.

165. See Bintliff, *supra* note 136, at 339.

III. LEGAL RESEARCH TODAY: CAUGHT IN THE STORM

As the old foundations of the American legal system are eroded by the storm of information, law schools must begin to educate their students to recognize, understand, and weather the onslaught. However, law schools routinely ignore the potential of legal research as a course that can teach fundamental legal and lawyering skills and enhance student learning. Legal research is generally compartmentalized within the legal academy as an easily learned, routine, and repetitive activity unconnected to legal analysis, doctrine, or other lawyering skills, except perhaps legal writing.¹⁶⁶ It is too often taught either as a series of discrete legal tools,¹⁶⁷ as a small part of a first-year writing assignment,¹⁶⁸ or in some combination of these formats.

These approaches only partially teach legal research. They also fail to provide the necessary course coverage or to support the legal analysis skills and doctrine taught in other courses.¹⁶⁹ A variety of factors create this phenomenon:¹⁷⁰ the lack of recognition of the breadth of the skill set needed to research effectively,¹⁷¹ the pass/fail

166. See Robert C. Berring, *A Sort of Response: Brutal Non-Choices*, 4 No. 3 PERSP. TEACHING LEGAL RES. & WRITING 81, 81 (1996) [hereinafter Berring, *Brutal Non-Choices*] (noting that well-taught legal research classes do not exist at most schools).

167. Called the "bibliographic method," this type of teaching often involves the student in "treasure hunts" designed to familiarize students with the law library and legal resources. See James B. Levy, *Better Research Instruction Through "Point of Need" Library Exercises*, 7 LEGAL WRITING J. LEGAL WRITING INST. 87, 94 (2001). This method can be used in a stand-alone class or in a discrete series of lectures within a legal research and writing class. See *id.*

168. Often called the "'process-orientated' approach," this introduces students to the legal sources necessary to complete the writing assignment. *Id.* While the process approach is usually seen as superior because it places legal research into context, it also has major drawbacks, not the least of which are the limited amount of legal sources covered, the incomplete use of the legal sources covered, and the failure to teach legal research strategy. *Id.* at 95-96.

169. See Lisa Eichhorn, *The Legal Writing Relay: Preparing Supervising Attorneys to Pick up the Pedagogical Baton*, 5 LEGAL WRITING J. LEGAL WRITING INST. 143, 145-46 (1999).

170. See *id.* at 147-48. Eichhorn argues a variety of factors, including professorial rank, status, teaching loads, and credit allotment, send messages to students. She concludes that "when time is scarce, as it always is in law school, students will spend their precious hours on courses that appear to be more important and give short shrift to those that the law school does not seem to have invested in." *Id.* at 148.

171. See *infra* notes 228-36 and accompanying text (describing the individual skills required to research effectively).

nature of many legal research courses,¹⁷² institutional economic constraints,¹⁷³ the difficulty in teaching legal research and writing well,¹⁷⁴ the instructor's lack of legal research expertise,¹⁷⁵ and the general lack of research in many "research and writing" programs.¹⁷⁶ This compartmentalizing of legal research as separate and apart from other courses minimizes it as a necessary legal and lawyering skill and erases the ability for legal research to cross-reference and

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172. Michael J. Lynch, *An Impossible Task but Everybody Has to Do It—Teaching Legal Research in Law School*, 89 LAW LIBR. J. 415, 437 (1997) ("Legal Research and Writing courses offered on a pass-fail basis ensure that student incentives will be limited."); see also Charles B. Craver, *The Impact of a Pass/Fail Option on Negotiation Course Performance*, 48 J. LEGAL EDUC. 176, 185 (1998) ("[T]here is a statistically and practically significant difference between the graded students' performance on the negotiation exercises and that of pass/fail students.").
 173. Leigh Hunt Greenhaw, "To Say What the Law Is": *Learning the Practice of Legal Rhetoric*, 29 VAL. U. L. REV. 861, 864–65 (1994–1995) ("The historical reason for neglect of research and writing in legal education appears to have been economic, rather than theoretical or pedagogical.").
 174. [T]eaching legal research is not easy. Many librarians have no idea how to do it well, many legal writing instructors do not know how to do it well. The kind of cutting-edge programs emerging at places like Harvard under the guidance of Virginia Wise, the type of work that goes on in advanced legal research courses around the country, these are labors of creativity. There is more to good research than bibliography, just as there is more to good writing than grammar. These are complex areas. There are precious few folks who are masters of one of these crafts, let alone both. It demeans research to consign its teaching to those who do not spend their lives on it.
Berring, *Brutal Non-Choices*, *supra* note 166, at 81.
 175. *Id.* Further, although law librarians at most law schools are required to have both a Masters degree in Library and Information Science and a J.D., non-librarians who teach legal research within a legal writing course are not required to have advanced legal research training. Cf. Duncan Alford, *The Development of the Skills Curriculum in Law Schools: Lessons for Directors of Academic Law Libraries*, 28:3 LEGAL REFERENCE SERV. Q. 301, 306–09, 311 (2009) (stating that writing experts are infrequently research experts).
 176. Alford, *supra* note 175, at 311 (noting that research instruction has been, in most law schools, declared a component of the legal writing curriculum); Berring, *Brutal Non-Choices*, *supra* note 166, at 81 (arguing that a major difficulty in creating good research programs is lack of faculty support); Lynch, *supra* note 172, at 431 (stating that when writing instructors control the syllabus, time devoted to legal research sources inevitably declines); Roy M. Mersky, *Legal Research Versus Legal Writing Within the Law School Curriculum*, 99 LAW LIBR. J. 395, 399 (2007) ("I have long argued that increased attention to legal writing has come at the cost of legal research instruction.").

reinforce analytic skills being taught in other classes.¹⁷⁷ This is especially true when legal research is taught by those who are neither expert researchers nor have the time or inclination to learn to research well.¹⁷⁸

Legal research, like much of legal education, requires the teaching of problem-solving techniques since much of the work of a lawyer is “creative problem solving.”¹⁷⁹ If one of the major tasks of law students is to learn “how the law works,”¹⁸⁰ understanding how legal research “works,” as opposed to merely being trained to accomplish discrete research tasks, is fundamental to this larger goal.¹⁸¹ If law school is to provide a place where the legal profession not only communicates knowledge from expert to beginner, but also communicates ethics and values, then legal research education must be taught by experts and better integrated into the entire curriculum.¹⁸² Legal research, no less than legal writing, is directly linked to legal thought, and should be taught as the complex set of

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177. David S. Romantz, *The Truth About Cats and Dogs: Legal Writing Courses and the Law School Curriculum*, 52 U. KAN. L. REV. 105, 124 (2003). Although Romantz subsumes research into legal research and writing courses (as do many writers), his thesis is equally applicable to legal research courses. He suggests that although the pedagogical approaches between doctrinal courses and writing courses differ, they should be seen to complement each other, both training students to think critically about the law and to solve legal problems. *Id.* at 137.
178. See Gerald F. Hess, *Heads and Hearts: The Teaching and Learning Environment in Law School*, 52 J. LEGAL EDUC. 75, 104–05 (2002) (noting that good teaching not only requires subject matter expertise, but also requires a passion for the subject and recognition of its importance). Herbert Cihak provides a telling anecdote related by U.C. Berkley Librarian and Professor of Law Robert Berring, who was interviewing the school's head of the research and writing program. When Berring asked him how he wanted to handle the research portion of the course, the man looked at Berring and said, ““Research, Wow, I don’t know. I hadn’t thought about that. Is that something the library does or something?”” Herbert E. Cihak, *Teaching Legal Research: A Proactive Approach*, 19 LEGAL REFER. SERV. Q. 27, 36 n.7 (2001).
179. Gordon A. MacLeod, *Creative Problem-Solving for Lawyers?!*, 16 J. LEGAL EDUC. 198 (1963–1964) (suggesting that law schools must teach the ability to “Resolve Legal Problems Effectively and Responsibly,” as problem solving is “‘the’ skill of lawyering.”); see also BEST PRACTICES, *supra* note 4, at 59 n.45.
180. David Nadorney, *Teaching Legal Reasoning Skills in Substantive Courses: A Practical View*, 5 N.Y. CITY L. REV. 109, 110 (2002).
181. See Ellie Margolis & Susan L. DeJarnatt, *Moving Beyond Product to Process: Building a Better LRW Program*, 46 SANTA CLARA L. REV. 93, 112–13 (2005).
182. CARNEGIE REPORT, *supra* note 3, at 4 (describing professional schools as where expert knowledge and judgment and professional values are on display and where future practitioners can examine future identities and roles).

skills it entails.¹⁸³ Teaching legal research as a series of discrete legal tools or tasks (the bibliographic method) fails to present legal research as a complex problem-solving skill interconnected with issue spotting, legal analysis, synthesis of information, and application of law to facts.¹⁸⁴ The “treasure hunt” or “Easter egg” library assignments routinely used in the bibliographic method also fail to prepare students to work on the kind of ill-defined problems without clear answers that characterize the practice of law.¹⁸⁵ In addition, such a program does not advance a student’s understanding of the research process as being intricately connected to the legal problem being solved.¹⁸⁶ It is a teaching methodology that is largely driven by ease of design and grading—“a pedagogical choice growing out of a system in which the teachers are inexperienced, underpaid, and overworked.”¹⁸⁷ This is clearly not the best criteria on which to base law school pedagogy. Fortunately, it is a teaching methodology that has lost some favor in the academy as the process method has become more prevalent.¹⁸⁸

However, while the adoption of the process method¹⁸⁹ has been seen as an improvement over the bibliographic method of teaching legal research, in reality this method also falls short in both coverage and in leveraging the potential of legal research as a legal skills course.¹⁹⁰ Because legal research is generally taught as part of a first-year writing course, the emphasis is generally on writing and not research.¹⁹¹ This situation has only been exacerbated as legal

183. Peter Brandon Bayer, *A Plea for Rationality and Decency: The Disparate Treatment of Legal Writing Faculties as a Violation of Both Equal Protection and Professional Ethics*, 39 DUQ. L. REV. 329, 378 (2001).

184. See Margolis & DeJarnatt, *supra* note 181, at 109–14.

185. See *id.* at 111–13.

186. Christopher G. Wren & Jill Robinson Wren, *The Teaching of Legal Research*, 80 LAW LIBR. J. 7, 19–20 (1988).

187. Margolis & DeJarnett, *supra* note 181, at 112 & n.85.

188. See Helene S. Shapo & Christina L. Kunz, *Brutal Choices in Curricular Design: Teaching Research as Part of an Integrated LR&W Course*, 4 PERSP. TEACHING LEGAL RES. & WRITING 78 (1996).

189. See *supra* note 168 and accompanying text.

190. See Levy, *supra* note 167, at 95–97; Margolis & DeJarnatt, *supra* note 181, at 109–116; see also Shapo & Kunz, *supra* note 188 (describing integrated research and writing classes). It must be noted that many of those who have been around the legal academy for extended periods feel that most integrated research and writing programs give short shrift to research. See Berring, *Brutal Non-Choices*, *supra* note 166; Mersky, *supra* note 176.

191. See Berring, *Brutal Non-Choices*, *supra* note 166; Dunn, *supra* note 59, at 56; Mersky, *supra* note 176; Helene S. Shapo, *The Frontiers of Legal Writing*:

research and writing classes have taken on additional goals beyond research and writing.¹⁹² For the process method to be successful, there must be multiple attempts to research different legal concepts, which cannot be done when the focus is on writing.¹⁹³ Further, those who teach in legal research and writing courses are generally not expert researchers, which limits their ability to provide the necessary level of legal research education.¹⁹⁴

There are additional problems with teaching legal research within a legal research and writing class. First-year writing programs purposefully select problems that beginning law students can grasp easily, and thus do not allow students to interact with a range of primary and secondary authority or provide the level of interaction with the material to facilitate a deep understanding of the research process.¹⁹⁵ There is generally little chance for students to grapple with open-ended research problems that replicate the indeterminacy of the law¹⁹⁶ or to do so with enough repetition to facilitate

Challenges for Teaching Research, 78 LAW LIBR. J. 719 (1986) (acknowledging the emphasis of legal writing over legal research in combined classes and suggesting advanced legal research courses as a potential solution).

192. See O'Neill, *supra* note 116, at 22–23 (acknowledging that legal writing courses are primarily responsible for teaching legal reasoning); see also Lisa Eichhorn, *The Role of Legal Writing Faculty in an Integrated Curriculum: Reporter's Notes on the Integration of Theory, Doctrine, and Practice in Legal Education*, 1 J. ASS'N LEGAL WRITING DIRECTORS 85, 85 & n.3 (2002) (suggesting that legal research and writing courses devote considerable time to teaching fundamental legal analysis as they do either research or writing skills).
193. See Beryl Blaustone, *Teaching Law Students to Self-Critique and to Develop Critical Clinical Self-Awareness in Performance*, 13 CLINICAL L. REV. 143, 153 (2006) ("Repetition anchors knowledge and fosters movement from simplistic to complex understanding of knowledge. Repetition increases the ability to apply and manipulate lessons in a variety of new settings. Repetition contributes to mastery and ownership.").
194. See Alford, *supra* note 175, at 306 ("The reality, however, is that legal writing and legal research are different skills, just as negotiation and oral advocacy are different. Writing experts are infrequently also research experts, and the coupling of the fields is an unfortunate development for law students and practitioners alike."); see also Berring, *Brutal Non-Choices*, *supra* note 166 (arguing that many legal writing instructors do not know how to do legal research well). Further, some schools continue to allow upper level students to provide legal research instruction. See Penelope Pether, *Sorcerers, Not Apprentices: How Judicial Clerks and Staff Attorneys Impoverish U.S. Law*, 39 ARIZ. ST. L.J. 1, 48 (2007).
195. Lynch, *supra* note 172, at 432–33.
196. *Id.* Cf. Margolis & DeJarnett, *supra* note 181, at 113 (closed universe teaching fails to prepare students for the "ill defined" problems involved in legal practice).

learning.¹⁹⁷ The classes purporting to use the process method to teach legal research often incorporate the work books and treasure hunts that are designed to teach the bibliographic method. This is especially true for those portions of the research curriculum that are not relevant to the central issue the class is focusing on in the writing assignment.

There is also little time for experiential learning experiences that would provide students with a chance to reflect on and learn from the legal research portion of the class.¹⁹⁸ With the emphasis on writing, there is little support for writing professors to teach information literacy and to address the impact electronic research has had on the structure of the legal system.¹⁹⁹ Further, law students quickly discern that the focus is not on the research portion of the class and allot their time accordingly.²⁰⁰ Legal research can no longer be taught as a small part of a primarily legal writing course, even if well integrated into the writing program. In addition, it is not enough to teach legal research as primarily case-centered.²⁰¹ The law and legal research have been fundamentally changed,²⁰² and teaching legal research must change as well. New subjects must be covered, new technologies explored, and new skills must be taught.

197. Lynch, *supra* note 172, at 433.

198. See Kristin B. Gerdy, *Teacher, Coach, Cheerleader, and Judge: Promoting Learning Through Learner-Centered Assessment*, 94 LAW LIBR. J. 59, 64 (2002) (stating that legal research courses fail to provide the active experimentation necessary to synthesize their theoretical knowledge).

199. See Lynch, *supra* note 172, at 415 n.1, 425–26.

200. See *id.* at 425–28.

201. Berring, *Brutal Non-Choices*, *supra* note 166, at 81; see also McDonnell, *supra* note 93, at 290–93 (arguing that law schools must change how legal research is taught to reflect the shift from legal formalism to legal realism).

202. Paul D. Callister, *Legal Research and the Ballad of John Henry*, 91 ILL. B.J. 261, 261 (2003). Callister argues that the shift from “‘controlled-vocabulary’” indexing to “‘free text’” searching, along with “(i) the exponential growth and scale of legal information, (ii) the globalization of modern life increasing the number of contacts with foreign law and jurisdictions, (iii) the shift away from a case law as the predominant feature of the American legal system to a more regulatory or codified system,” have fundamentally altered the legal research environment in ways that lay “siege to legal thought itself. The individual attorney or jurist who ignores these changes risks obsolescence. If the legal profession does so, it will fail to anticipate instability and profound, systemic change.” *Id.* at 258, 261; see also Berring, *Brutal Non-Choices*, *supra* note 166, at 81 (explaining that poor teaching of legal research could be overlooked in the past because “the information universe had not yet been expanded to include legislation, administrative tools, practice materials, and, of course, research in electronic form”).

Legal research and writing courses are struggling to carry their current teaching loads.²⁰³ It would be ridiculous to expect the instructors to address the complex challenges facing law schools around the teaching of legal research without institutional support and the guidance of expert researchers.²⁰⁴ In the words of Professor Berring, “[i]n the midst of an information revolution that it cannot stop and seems hardly to understand, the legal profession must reassess the very way it thinks about legal research and legal research training.”²⁰⁵

If the law schools are not willing to recognize legal research as fundamental to learning and practicing law, they should remove it from the curriculum. Teaching legal research as separate and apart from the rest of what law students learn is potentially worse from the student’s perspective than not teaching it at all. Current legal research programs often imbue students with a dangerous naivety in the face of the ever-growing wave of information they will be expected to find, sort, manage, and understand on behalf of their clients.²⁰⁶ This naivety can adversely affect students’ legal reasoning ability. If legal research skills are fundamental to learning and practicing law, and they are, then law schools must rethink how these skills are taught to ensure students are prepared for the 21st century practice of law.

203. See Jo Anne Durako, *Dismantling Hierarchies: Occupational Segregation of Legal Writing Faculty in Law Schools: Separate and Unequal*, 73 UMKC L. REV. 253, 270 (2004) (“Most law faculty acknowledge that writing teachers may well have the heaviest workload at the law school.”); Mersky, *supra* note 176, at 396 (“Legal writing instructors have been forced to embrace legal research, legal writing, remedial writing, basic writing, grammar, legal method, advocacy, counseling, and a whole smorgasbord of other activities. They are very skilled at these tasks, but, as we all know, there are limits to promiscuous embracing.”).

204. Even as legal research and writing courses have taken on the teaching of additional skills, those who teach it indicate that they are often quite constrained in how and what they teach. See O’Neill, *supra* note 116, at 21, 23 (indicating that legal writing courses are primarily responsible for teaching legal reasoning); Durako, *supra* note 203, at 263–64 (describing law schools that dictate everything from which text can be used and which topics can be taught, to assignment due dates for their legal research and writing programs).

205. Berring, *Legal Research Universe*, *supra* note 44, at 34.

206. See Lynch, *supra* note 172, at 416, 420.

IV. THE LIFEBOAT: LEGAL RESEARCH AS A FUNDAMENTAL SKILL

Legal research has been almost completely forgotten as a necessary component of legal education,²⁰⁷ a dangerous lapse flowing from several interrelated factors. First, law schools have increased their emphasis on legal writing.²⁰⁸ In addition, many law faculty members no longer perform their own research and thus do not recognize either the importance of legal research as a lawyering skill or how legal research has radically changed.²⁰⁹ Many of these same faculty are far removed from the practice of law and do not understand the fundamental connection of legal research to law practice.²¹⁰ Others cannot fathom that legal research actually requires legal analysis or legal reasoning.²¹¹ Finally, creating a solid legal research program is difficult and requires work not many faculty members are willing to do or support.²¹² This is why it is necessary that legal research be recognized as both a fundamental legal and lawyering skill. Until it is, the necessary pedagogical changes will not be supported.

If legal research is not recognized as a fundamental skill, law schools are unlikely to support the adoption of a skills based program for teaching legal research.²¹³ Students will likely object to the effort necessary to sufficiently master legal research unless they recognize it as a fundamental skill intertwined with and supportive of learning the other skills necessary to practice law. Students who fail to master the skills will be those most overwhelmed by the tsunami of legal information and most likely to succumb to the “threat of the available”²¹⁴ created by the Internet and other options for electronic

207. Barbara Bintliff, *Legal Research: MacCrate's "Fundamental Lawyering Skill" Missing in Action*, 28 LEGAL REFERENCE SERVS. Q. 1, 1 (2009) (discussing the failure of law schools to provide other than cursory legal research education).

208. *Id.*

209. *Id.* at 3.

210. *Id.*

211. See Paul D. Callister, *Thinking Like a Research Expert: Schemata for Teaching Complex Problem Solving Skills*, 28 LEGAL REFERENCE SERVS. Q. 31, 48 (2009) (describing a faculty member who argued that legal research should not be a priority because it lacked “critical reasoning skills”).

212. Berring, *Brutal Non-Choices*, *supra* note 166, at 81–82 (describing why most legal research programs are substandard).

213. See *id.* at 82.

214. Thomas Keefe, *Legal Research and the Threat of the Available*, 94 ILL. B.J. 618, 618 (2006) (defining the “threat of the available” as “the natural tendency to turn first to the most readily available sources and then to regard these, the merely available, as all there is”).

legal research. These will be the students to whom clinics and extern programs must teach legal research, the students who fair poorly at their summer employment, and those who cannot research upon graduation.

A. Legal Research is Fundamental to Learning and Practicing Law

As commentary to the ABA Model Rules of Professional Conduct suggests, “the most fundamental legal skill consists of determining what kind of legal problems a situation may involve, a skill that necessarily transcends any particular specialized knowledge.”²¹⁵ The comment further states that a “lawyer can provide adequate representation in a wholly novel field through necessary study.”²¹⁶ Legal research is the legal skill that directly links the ability to determine legal issues and represent clients with the ability to achieve that “necessary study.”²¹⁷ This is not a unique revelation. The Carnegie Report described legal research as one of the skills that “define[s] effective lawyering.”²¹⁸ Best Practices for Legal Education argues that legal research is one of the necessary professional skills that law schools must teach if law graduates are to perform effectively as lawyers.²¹⁹ The American Bar Association accreditation standards require that students receive substantial instruction in legal research.²²⁰ The National Conference of Bar Examiners is considering adding a legal research component to the bar exam,²²¹ and legal research was also one of the twelve skills rated as “essential” or very important in a 2005 Arizona Bench and Bar Association survey.²²² In 1992, the MacCrate Report listed legal research as one of ten fundamental lawyering skills.²²³ In addition, legal information specialists have long recognized the importance of

215. MODEL RULES OF PROF'L CONDUCT R. 1.1 cmt. 2 (2007).

216. *Id.*

217. *Id.*

218. CARNEGIE REPORT, *supra* note 3, at 101.

219. BEST PRACTICES, *supra* note 4, at 77.

220. ABA SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, ABA 2007-2008 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 21 (2007), available at <http://www.abanet.org/legaled/standards/20072008StandardsWebContent/Chapter%203.pdf>.

221. See *supra* note 8 and accompanying text.

222. BEST PRACTICES, *supra* note 4, at 78.

223. MACCRATE REPORT, *supra* note 27, at 138–39, 157.

legal research classes being an identified and integrated part of legal analysis pedagogy in the first year, even if law schools have not.²²⁴

The active and systematic nature of legal research, as well as its importance, is captured in the MacCrate Report.²²⁵ The commentary to the report described legal research as “far more than a mechanical examination of texts; the formulation and implementation of a research design are analyzed as processes which require a number of complex conceptual skills.”²²⁶ The commentary states that legal research is “in essence a process of problem solving,”²²⁷ which is seen clearly when the individual components of legal research are examined.

Legal research requires an ability to sort through and correctly spot the issues provoked by a given set of facts,²²⁸ the ability to formulate a research plan;²²⁹ knowledge of how to find, read, and update primary authority;²³⁰ knowledge of the available secondary sources and when and how to use them to educate oneself on the issue;²³¹ an

224. See Berring, *Legal Research Universe*, *supra* note 44, at 25–27. Berring describes a legal research course and textbook developed by Professor Rombauer at the University of Washington School of Law in the early 1970s. He explains that she saw first-year legal research as fully integrated and linked directly to legal analysis and thought. He then goes on to explain that teaching it in this manner failed in part because it did not fit within the Langdellian teaching format, because it was seen as too clinical, and because regular law faculty did not have the skills to teach it. *Id.* at 25–26.

225. MACCRATE REPORT, *supra* note 27, at 138.

226. *Id.* at 163.

227. *Id.*

228. See Gallacher, *supra* note 100, at 158 (“[T]he legal research process is where law students first experience the framing of a legal issue from a given set of facts and then the exploring of legal doctrine within the factual context of the given problem.”); Debra S. Emmelman, *Gauging the Strength of Evidence Prior to Plea Bargaining: The Interpretive Procedures of Court-Appointed Defense Attorneys*, 22 LAW & SOC. INQUIRY 927, 939 (1997) (indicating that legal research is based on “‘issue spotting’”).

229. Theodore A. Potter, *A New Twist on an Old Plot: Legal Research Is a Strategy, Not a Format*, 92 LAW LIBR. J. 287, 290 (2000) (focus in legal research teaching should be on “good research strategy”).

230. Researching primary legal authority is included in all basic legal research texts. See, e.g., CRISTINA L. KUNZ ET AL., *THE PROCESS OF LEGAL RESEARCH* xiii–xv (6th ed. 2004) (individual chapters on case law, statutes, and regulations).

231. See Barbara Bintliff, *Context and Legal Research*, 99 LAW LIBR. J. 249, 258 (2007) (“Effective legal research starts within a sophisticated context of background information and knowledge. Considerable analysis and experience are required to understand the meaning and relative importance of authorities, and then to use them to craft a persuasive argument.”).

understanding of jurisdiction and the nature of precedent so as to recognize the applicable primary authority;²³² an ability to understand citation;²³³ the capacity to synthesize and apply the information found to the original issue;²³⁴ and an ability to recognize when the research process is complete.²³⁵ It also requires the researcher to be able to accomplish all of those steps in whichever format (print, electronic, or some combination) is available.²³⁶ Thus, legal research, like many skills taught in law school, involves both legal and lawyering skills. These are separate but overlapping and often intertwined categories of skills. They are the skill sets encompassed by the Carnegie Report's three apprenticeships and by the values and skills detailed in the MacCrate Report.²³⁷ Legal and lawyering skills are also the legal competencies the teaching suggestions provided by Best Practices are designed to enhance.²³⁸ Recognizing and teaching legal research as both a legal and a lawyering skill creates a synergistic course that has positive ramifications for student learning.

B. Legal Research is a Legal Skill

"Legal skill" denotes the acquisition of basic legal knowledge and legal analysis abilities necessary for the successful completion of law school.²³⁹ Basic legal knowledge is that required to understand the American legal system and includes concepts such as legal authority, jurisdiction, and stare decisis.²⁴⁰ Legal skill also refers to the doctrinal and analytic components of the process used to teach students to "think like a lawyer," the defining goal of most law

232. Romantz, *supra* note 177, at 139–40 n.203 (legal research involves important jurisprudential doctrines such as precedent, stare decisis, and the common law).

233. Kris Franklin, ". . . See Erie.": *Critical Study of Legal Authority*, 31 U. ARK. LITTLE ROCK L. REV. 109, 130 n.59 (2008) (discussing the importance of citation being taught in "legal research/writing/analysis" courses).

234. See Gallacher, *supra* note 100, at 158; Teitcher, *supra* note 83, at 565 ("Teaching legal research necessarily involves teaching synthesis and legal analysis . . .").

235. See, e.g., KUNZ ET AL., *supra* note 230, at 58–60 (containing an entire section on how to determine when to stop researching).

236. See *id.* at 21.

237. See CARNEGIE REPORT, *supra* note 3, at 27–29; MACCRATE REPORT, *supra* note 27, at 135–37.

238. See BEST PRACTICES, *supra* note 4, at 94–100.

239. For a description of the difference between "legal skill" and "lawyering skill," see *supra* notes 28–36 and accompanying text.

240. See *infra* notes 257–58 and accompanying text.

schools.²⁴¹ “Thinking like a lawyer” has been defined both broadly as encompassing many of the skill sets used by practicing attorneys,²⁴² and narrowly as centered on analytic skills.²⁴³ However one defines “thinking like a lawyer,” most educators understand that it is necessary to immerse first-year law students in the law and in legal analysis to succeed.²⁴⁴ Teaching legal research as a legal skill provides both the basic legal knowledge necessary to “think like a lawyer” and reinforces and helps to immerse first-year law students into the cognitive apprenticeship necessary to succeed in law school.²⁴⁵

The individual components of legal research involve both analytical and lawyering skills.²⁴⁶ First, the analytic study of American law is inextricably linked with legal research.²⁴⁷ In addition, successful legal research requires, and legal research classes

241. See David T. ButleRitchie, *Situating “Thinking Like a Lawyer” Within Legal Pedagogy*, 50 CLEV. ST. L. REV. 29, 34 (2002–2003).

242. See *id.* at 30 (citing James Elkins, Carrie Menkle-Meadow, and Nancy Schultz as legal educators who have argued for broadening the scope of what constitutes “thinking like a lawyer”) (citations omitted).

243. See, e.g., *id.* at 30–31 (arguing that a narrow interpretation of the skills needed to “think like a lawyer” better serves law schools in the context of introducing entering law students to legal reasoning skills); Kurt M. Saunders & Linda Levine, *Learning to Think Like a Lawyer*, 29 U.S.F. L. REV. 121, 125 (1994) (noting that analytical skills are thought to be more closely tied to the lawyer’s cognitive processes, and are thus more frequently viewed as the components of thinking like a lawyer).

244. See CARNEGIE REPORT, *supra* note 3, at 27 (using the concept of apprenticeship to describe a law student’s move from novice to professional); BEST PRACTICES, *supra* note 4, at 94–100 (stating that law schools need to coordinate instruction and integrate theory, doctrine, and practice); Saunders & Levine, *supra* note 243, at 180–86 (remarking that the process of learning to think like a lawyer is iterative and evolutionary throughout the first year); David T. ButleRitchie, *supra* note 241, at 32–33 (describing the first year as an initiation into thinking like a lawyer).

245. Gallacher, *supra* note 100, at 158 (“Reduced to its essence, the legal research process is where law students first experience the framing of a legal issue from a given set of facts and then the exploring of legal doctrine within the factual context of the given problem. In effect, legal research is where law students first begin to think of the law in a problem-solving light and where, in true Kingsfieldian terms, they begin to think like lawyers.”).

246. See *supra* notes 228–36 and accompanying text (detailing individual components of legal research); Michael Coper, *Legal Knowledge, The Responsibility of Lawyers, and the Task of Law Schools*, 39 U. TOL. L. REV. 251, 255 (2008) (an article written by an Australian Dean and Law Professor describing legal research as one of two skills that “underpin or overarch” the categories of knowledge and skills in law schools).

247. See *supra* notes 119–24 and accompanying text (discussing the deep connection between legal thought and the creation and use of early legal classification systems).

teach, the basic knowledge necessary for the study of law.²⁴⁸ These include the structure of the American system of government, the structure of the court system, the multiple concepts of jurisdiction, the concepts of precedent and stare decisis, the different sources of primary authority and how to read and track them, and how these primary authorities affect one another.²⁴⁹ These topics are necessary for case law synthesis²⁵⁰ and are referenced but often not taught in-depth elsewhere in the curriculum.

Further, legal research is an iterative process of problem solving requiring legal reasoning and analysis.²⁵¹ It would be impossible to do legal research without analyzing, synthesizing, and applying the information found, both to the original issue and to the research plan developed to address the issue.²⁵² The process of legal research requires an ability to determine legal context,²⁵³ assess the law found

248. See MACCRATE REPORT, *supra* note 27, § 3.1, at 157 (suggesting that legal research requires knowledge of the nature of legal rules and institutions).

249. See *id.*

250. For example, before a student can identify and combine relevant authority into an analytic framework she must understand the nature and hierarchy of authority in the American legal system. See Jane Kent Gionfriddo, *Thinking Like a Lawyer: The Heuristics of Case Synthesis*, 40 TEX. TECH L. REV. 1, 4 (2007).

251. See, e.g., The MACCRATE REPORT *supra* note 27, at 152 (specifically linking legal research with legal analysis and reasoning); Callister, *supra* note 211, at 31–32, 48–49 (discussing the use of schemata to teach the complex problem-solving skills necessary for legal research); Larry O. Natt Gantt, II, *Deconstructing Thinking Like a Lawyer: Analyzing the Cognitive Components of the Analytical Mind*, 29 CAMPBELL L. REV. 413, 422 (2007) (the practical skill of legal research necessarily involves analytical skills like statutory or case synthesis and analysis); Spencer L. Simons, *Navigating Through the Fog: Teaching Legal Research and Writing Students to Master Indeterminacy Through Structure and Process*, 56 J. LEGAL EDUC. 356, 357 (2006) (“[T]he purpose of research is to reveal the possible range of theories that may be applied to the problems presented, to assess the probabilities of the outcomes that may result if the issue is adjudicated, and to inform the strategy for influencing the result of any adjudications, either in the structuring of transactions or in presenting the case to adjudicators.”); Charles J. Ten Brink, *A Jurisprudential Approach to Teaching Legal Research*, 39 NEW ENG. L. REV. 307, 316 (2005) (“[L]egal research is not an endeavor distinct from the process of legal reasoning and argument.”); The Boulder Statement on Legal Research Education (June 21–22, 2009) (on file with author) (discussing legal research as the resolution of legal problems through an iterative and analytical process).

252. See MACCRATE REPORT, *supra* note 27, at 152.

253. Thomas Keefe, *Finding Haystacks: Context in Legal Research*, 93 ILL. B.J. 484, 484 (2005) (suggesting that one of the first steps in the process of legal research is to identify what the answer might look like and where one might find it—to create context).

in the process,²⁵⁴ and an ability to understand how what is found relates to specific situations.²⁵⁵ The process of legal research cannot be mechanically divorced from legal analysis and reasoning. Similarly, teaching legal research should not be divorced from recognizing, reinforcing, and teaching those legal skills, even as those skills are more explicitly taught in other classes.²⁵⁶

Law is a profession with its own language, procedure, and structure, all requiring analysis and reasoning skills. For example, in discussing legal citation, Professor Kris Franklin emphasizes that “[u]nderstanding how legal authorities are most effectively deployed to build legal arguments requires mastery of all of the most fundamental components of legal reasoning: reading sources of law meticulously, interpreting them critically, and applying them strategically.”²⁵⁷ Legal research, which must include a mastery of citation, is no less directly linked to the “fundamental components of legal reasoning.”²⁵⁸ Legal research when done correctly can lend itself to creative and imaginative problem solving,²⁵⁹ allowing an attorney to harness information in defense of a client. Similarly, recognizing legal research as a legal skill can help law schools build the holistic experience that the Carnegie Report suggests is necessary for first-year courses.²⁶⁰

254. Thomas R. French, *Minding the Gap: 21st Century International, Foreign and Comparative Law Research Issues*, 35 SYRACUSE J. INT'L L. & COM. 159, 159 (2008) (“Locating and accessing relevant statutes, opinions, regulations, treaties, treatises and documents is fundamental to legal research.”).

255. Bintliff, *supra* note 136, at 340–41.

256. See, e.g., Amy E. Sloan, *Erasing Lines: Integrating the Law School Curriculum*, 1 J. ASS'N LEGAL WRITING DIRECTORS 3, 6–7 (2002) (describing how students can learn substantive rules and doctrine through the legal research process).

257. See Franklin, *supra* note 233, at 111; accord Schauer, *supra* note 149, at 1934 (describing citation practice as “the surface manifestation of a deeply important facet of the nature of law itself”).

258. Franklin, *supra* note 233, at 111–12.

259. When done poorly, as when lawyers overly rely on CALR and key word searching, it actually stultifies creativity and reduces the likelihood of solutions to new or unique legal problems. See generally Richard Delgado & Jean Stefancic, *Why Do We Ask the Same Questions? The Triple Helix Dilemma Revisited*, 99 LAW LIBR. J. 307 (2007) (discussing the limitations of CALR, especially in law reform cases).

260. CARNEGIE REPORT, *supra* note 3, at 58.

C. Legal Research is a Lawyering Skill

Legal research is easily recognized as a lawyering skill, one of the fundamental tasks essential for legal practice.²⁶¹ The Carnegie Report lists it as one of the important skills that define effective lawyering,²⁶² and the MacCrate Report says, “[i]t can hardly be doubted that the ability to do legal research is one of the skills that any competent legal practitioner must possess.”²⁶³ Courts regularly sanction attorneys for legal research lapses,²⁶⁴ a situation which may soon evolve to include sanctions for failing to cite to other types of information in the public domain.²⁶⁵

Legal research is arguably the legal skill upon which most other skills are built, as it is difficult to imagine legal writing, effective interviewing, discovery, negotiations, or client counseling without legal research. Besides linking legal research to legal analysis, the MacCrate Report specifically links it to the practice skills of Counseling,²⁶⁶ Negotiation,²⁶⁷ and Litigation and Alternative Dispute Resolution.²⁶⁸ The commentary in the report also implicitly links research to factual investigation²⁶⁹ and communication.²⁷⁰ Legal

261. Multiple studies of practitioners indicate the fundamental nature of legal research as a lawyering skill. See, e.g., BEST PRACTICES, *supra* note 4, at 78 (discussing a survey which indicated that 94% of the Arizona Bar considered legal research as essential or very important); MACCRATE REPORT, *supra* note 27, at 123–26 (detailing the process by which the writers determined which legal skills to include); see also W. Sherman Rogers, *Title VII Preemption of State Bar Examinations: Applicability of Title VII to State Occupational Licensing Tests*, 32 HOW. L.J. 563, 589–90 & nn.150–54 (1989) (noting surveys listing legal research as a fundamental skill).

262. CARNEGIE REPORT, *supra* note 3, at 101 (listing legal research along with developing evidence, interviewing, client counseling, drafting documents, and negotiating).

263. MACCRATE REPORT, *supra* note 27, at 163.

264. See Marguerite L. Butler, *Rule 11-Sanctions and a Lawyer's Failure to Conduct Competent Legal Research*, 29 CAP. U. L. REV. 681, 694–97 (2002) (documenting the types of sanctions ordered for poor legal research by attorneys); Ellie Margolis, *Surfin' Safari: Why Competent Lawyers Should Research on the Web*, 10 YALE J. L. & TECH. 82, 89–106 (2007) (discussing court sanctions as well as ethics violations and malpractice claims because of poor legal research).

265. MacLachlan, *supra* note 95, at 616.

266. MACCRATE REPORT, *supra* note 27, § 6.2(b), at 178.

267. *Id.* § 7.1(b)(i), at 185.

268. *Id.* § 8.1(a)(vi), at 191; § 8.1(c)(i)(A)(II), at 192; § 8.1(c)(B), at 193; § 8.3(d)(ii), at 196.

269. See *id.* at 172 (indicating that lawyers must gain substantive knowledge of other fields).

research is the conduit for the “necessary study” that allows attorneys to competently represent clients.²⁷¹

Lawyers can neither learn nor practice law without the ability to perform legal research.²⁷² Law schools should re-engineer their legal research programs to reflect the fundamental nature of legal research. Doing so will provide students with the tools and education they need to address the storm of information currently altering the legal landscape. Refusing to recognize and address the changes in the legal environment will leave students confused and helpless against the tide of information currently swamping the law.

V. PRINCIPLES FOR REBUILDING LEGAL RESEARCH EDUCATION

Once law students, faculty, and administrators recognize legal research as a fundamental skill, legal research programs can reorganize to provide the necessary legal research skills in a manner that supports a holistic approach to legal education.²⁷³ To achieve this, schools should be guided by four principles. First, legal research must be integrated with the first-year legal curriculum as a whole, not merely taught as a small part of legal writing.²⁷⁴ Second, legal research must be taught as an iterative and analytical process of problem solving.²⁷⁵ Third, legal research classes must explicitly teach information literacy skills.²⁷⁶ Fourth, legal research must be taught using the progressive pedagogies already adopted in other law school skills classes.²⁷⁷ The elements of these principles overlap to some degree, and many schools include some or most of them in advanced legal research courses.²⁷⁸ However, in order to meet the

270. See *id.* § 5(b)(ii)(A)–(B), at 174 (indicating that communication requires selection, articulation, and documentation of legal theories, which cannot be done without legal research).

271. See *supra* note 215 and accompanying text (discussing the ABA MODEL RULES OF PROF'L CONDUCT).

272. See CARNEGIE REPORT, *supra* note 3, at 101 (indicating that legal research is an important skill that defines effective lawyering in legal courses and in practice).

273. See CARNEGIE REPORT, *supra* note 3, at 58–59 (discussing the need for integration of classes for a more holistic approach to teaching law).

274. See discussion *infra* Part V.A.

275. See discussion *infra* Part V.B.

276. See discussion *infra* Part V.C.

277. See discussion *infra* Part V.D.

278. See, e.g., J.P. Ogilvy, *The Use of Journals in Legal Education: A Tool for Reflection*, 3 CLINICAL L. REV. 55, 73 (1996) (discussing the use of problem-solving activities to promote interaction and discussion in advanced legal research courses).

educational needs of first-year law students, these principals must be adopted by those teaching first-year legal research.

These principles provide wide latitude for individual pedagogical goals to be set within each class.²⁷⁹ At the same time, they create a structure that ensures students receive the necessary legal research education in a manner that actively supports connections between the analytical and the practical, between thinking like a lawyer and acting as a lawyer.²⁸⁰ It is important to note that the principles for rebuilding legal research provided here are not “additive” but integrative, building legal research into the very foundation of legal education.²⁸¹

A. *Integrate Legal Research With the Entire First-Year Curriculum*

Calls for integrating or at least referencing individual legal topics²⁸² or lawyering skills,²⁸³ including legal research,²⁸⁴ throughout the curriculum are becoming common. Integration of skills in doctrinal courses is seen as facilitating “conceptual knowledge, skill, and moral discernment” with the capacity for situated judgment.²⁸⁵ However, this article does not approach integration from that

279. See, e.g., Katz, *supra* note 2, at 924 (describing the range of possible objectives for skills-based courses).

280. See *id.* at 922–24.

281. Successfully reorganizing legal research is not merely adding content to current legal research classes, which is often perceived as requiring that something else be removed because of time constraints. Rebuilding legal research requires that it be integrated into the legal education in such a way as to support and build on other portions of a student’s law school experience. See CARNEGIE REPORT, *supra* note 3, at 190–91 (discussing the difference between additive and integrated strategies for legal education).

282. See, e.g., DEBORAH L. RHODE, *PROFESSIONAL RESPONSIBILITY: ETHICS BY THE PERVASIVE METHOD* 7 (2d ed. 1998) (discussing legal ethics); M. Isabel Medina, *Justifying Integration of Domestic Violence Throughout the Law School Curriculum: An Introduction to the Symposium*, 47 LOY. L. REV. 1, 4 (2001) (discussing domestic violence).

283. See, e.g., Lisa T. McElroy, *From Grimm to Glory: Simulated Oral Argument as a Component of Legal Education's Signature Pedagogy*, 84 IND. L.J. 589, 589 (2009) (discussing oral argument skills); Carol McCrehane Parker, *Writing Throughout the Curriculum: Why Law Schools Need It and How to Achieve It*, 76 NEB. L. REV. 561, 562 (1997) (discussing legal writing).

284. Greenshaw, *supra* note 173, at 867 (“This Article develops the idea of law as a rhetorical practice to argue for full integration of legal research and writing into substantive first-year courses.”).

285. CARNEGIE REPORT, *supra* note 3, at 12.

perspective. Rather, it suggests that material from other classes be deeply and consistently integrated into legal research courses.

This does not require that legal research explicitly incorporate the teaching of doctrine, although those who teach legal research cannot be afraid of discussing either doctrine or lawyering skills.²⁸⁶ Rather, it requires those who teach legal research to build examples, questions, and assignments around the cases, statutes, and issues students are grappling with in their other courses.²⁸⁷ If there is an “enormous untapped potential that exists in doctrinal classes to demonstrate to the students the seamless connection between doctrine and skills,”²⁸⁸ there is a similar untapped potential in connecting legal research to other courses. Further, when taught as a process, legal research facilitates the active reading skills necessary for doctrinal education.²⁸⁹

Likewise, legal research classes can reinforce and support the learning of legal analysis.²⁹⁰ It requires coordination and work, but legal research programs can adopt the language and structure of legal

286. If one is uncomfortable discussing either doctrine or lawyering skills with first-year law students, he or she should not be teaching legal research. Teaching requires far more than merely knowing one's subject; those who teach must know their subject extremely well. *See, e.g.*, BEST PRACTICES, *supra* note 4, at 105. The subject here is teaching legal research to law students, not to pro se patrons, library students, or others outside of the profession. Legal research requires confidence in one's knowledge of doctrine, legal analysis, and lawyering skills. *See id.*

287. This is what legal writing classes that use the “process method” purport to do. Problems with the “process method” are detailed above. *See supra* Part II.A–C. However, even in those classes, only parts of legal research are directed at the issue students are writing about. The examples, drills, and other materials are generally taken from purchased workbooks whose problems do not reflect the major issue the class is focused on. Finally, if doctrinal classes are not referenced, it reinforces student perceptions that there is an important and unbridgeable difference between doctrinal courses and lawyering courses.

288. Deborah Zalesne with David Nadvorney, *Integrating Academic Skills into First Year Curricula: Using Wood v. Lucy, Lady Duff-Gordon to Teach the Role of Facts in Legal Reasoning*, 28 PACE L. REV. 271, 281 (2008).

289. Gallacher, *supra* note 100, at 171. This creates the same synergy as when skills are combined with substantive law courses. *See, e.g.*, Alice M. Noble-Allgire, *Desegregating the Law School Curriculum: How to Integrate More of the Skills and Values Identified by the MacCrate Report Into a Doctrinal Course*, 3 NEV. L.J. 32, 39–40 (2002) (describing the synergistic effect of teaching skills in doctrinal courses).

290. *See Parker, supra* note 283, at 568–69 (“Even legal writing courses that do not purport to teach legal analysis fulfill this function to some degree because presentation and content are often inseparable in practice, and analytic and communicative skills develop together.”). The same is true of legal research—one cannot perform it without performing legal analysis.

analysis used by other courses in the school. Legal research is an iterative process of problem solving that requires analysis, synthesis, and application of information to the facts.²⁹¹ It requires the same “thinking like a lawyer” skills students are learning in other courses. By coordinating how legal analysis and reasoning is discussed, legal research supports student learning, becoming another bridge helping to shrink the gulf between skills and doctrine.

Finally, as electronic lawyering becomes completely embedded in the practice of law, new ethical challenges will emerge.²⁹² Legal research, which is already addressing the impact of computers and the Internet on research and the law itself, is well placed to assist students in understanding and engaging with the social and ethical implications of technology. Class discussions on the significance of the computerization of law, regardless of whether the focus is the effects on the research process or how it affects lawyering in general, contribute to the development of a student’s identity as an ethical lawyer.²⁹³ Finally, all of these steps ensure students recognize that legal research is not separate and apart, but integral to lawyering. Learning legal research is difficult, and becoming more so.²⁹⁴ Creating a research program that students recognize as interconnected to learning and practicing law creates an environment in which students are more willing to put in the hard work necessary to become proficient researchers.

B. Teach Legal Research as an Iterative and Analytic Process of Problem Solving

As defined by the MacCrate Report, legal research has three distinct components: knowledge of the nature of legal rules and institutions; knowledge of and the ability to use the tools of legal research; and an understanding of the process of devising and implementing a coherent and effective research design.²⁹⁵ The commentary in the Report explicitly described the process of legal

291. See *supra* note 251 and accompanying text.

292. Theresa A. Gabaldon, *Virtual Virtuous Living: How Can the I-Generation of Lawyers Best Love and Serve Its Neighbors?*, 43 VAL. U. L. REV. 1045, 1045 (2009).

293. This is the CARNEGIE REPORT’S third apprenticeship, variously described as the socio-ethical or that of identity and purpose. See CARNEGIE REPORT, *supra* note 3, at 126–61 (discussing how legal education shapes a student’s understanding of professional responsibility).

294. See Podboy, *supra* note 93, at 1192 (discussing how technology has changed legal research).

295. MACCRATE REPORT, *supra* note 27, at 157–60.

research as paralleling that of the process of problem solving—diagnosis of the problem, identification of a range of possible solutions, and development and implementation of a plan of action.²⁹⁶ Problem solving has long been intrinsically connected to the practice of law.²⁹⁷ It is one of the fundamental lawyering skills identified by the MacCrate Report, which describes it as separate and distinct from legal analysis and reasoning.²⁹⁸ The ABA requires that law schools actively teach problem solving²⁹⁹ and many law schools have begun to include some aspect of problem solving in first-year courses.³⁰⁰

Legal problem solving is also one of the educational goals Best Practices suggests law schools include in their program of instruction.³⁰¹ The work also includes legal research as one of the problem-solving tools law schools generally teach.³⁰² However, it notes that schools provide information but neither the context nor the methodology necessary to turn information into creative problem-solving skills for students.³⁰³ This is especially true in legal research where students are frequently given a lot of information but much of it out of context, unconnected to legal reasoning and the practice of law.³⁰⁴ When taught in that fashion it is understandable that students fail to recognize either the complexity or the necessity of becoming proficient legal researchers.

However, when taught as a process of problem solving, legal research provides students with a methodology for organizing and

296. *Id.* at 163.

297. *See, e.g.,* MacLeod, *supra* note 179, at 198 (arguing that much of a lawyer's work is creative problem solving); Roy T. Stuckey, *Education for the Practice of Law: The Times They Are A-Changin'*, 75 NEB. L. REV. 648, 650 (1996) ("[P]roblem-solving is the core function of lawyers."); Katz, *supra* note 2, at 923 (stating that a mature legal mind includes the problem-solving skill set).

298. MACCRATE REPORT, *supra* note 27, at 135.

299. AM. BAR ASS'N SECTION OF LEGAL EDUC. AND ADMISSIONS TO THE BAR, STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 21 (Am. Bar Ass'n ed., 2008–2009), available at <http://www.abanet.org/legaled/standards/20082009StandardsWebContent/Chapter%203.pdf> ("A law school shall require that each student receive substantial instruction in . . . legal analysis and reasoning, legal research, problem solving, and oral communication.").

300. Richard A. Matasar, *Teaching Federal Courts Where Outcomes Matter: A Curricular Conjecture*, 53 ST. LOUIS U. L.J. 807, 822 n.29 (2009) (observing an emerging trend in legal education to better integrate problem solving and analysis).

301. BEST PRACTICES, *supra* note 4, at 59.

302. *Id.* at 63.

303. *Id.* at 63–64.

304. *See supra* notes 184–86 and accompanying text (describing uncontextualized teaching of legal research).

structuring their knowledge and a framework or schema within which to research.³⁰⁵ When taught as an iterative process, students are able to identify and distill legal rules and structure out of the morass of too much legal information.³⁰⁶ The Carnegie Report describes the importance of iteration in teaching by suggesting that it allows for expert performance to be made explicit in the “form of rules, procedures, protocols and organizing metaphors.”³⁰⁷ Teaching research in this way increases the likelihood that students will achieve a conceptual understanding of legal research such that they will be capable of transferring their research skills to other situations and into the future.³⁰⁸ Teaching research as legal problem solving also increases the likelihood that students will be able to correctly comprehend and apply the information they locate during their research because it reinforces the development of legal problem-solving schemas.³⁰⁹

Thus, teaching legal research as a problem-solving process is yet another way to reinforce the problem-solving skill sets students are learning. Further, legal research cannot be taught as anything other than an iterative process of problem solving because that is how legal research is accomplished. Legal research is undertaken in the increasingly indeterminate world of legal structures and potential solutions. In this world the goal of research is not necessarily to find the right answer, because there is rarely a “right” answer.³¹⁰ Rather, the goal of legal research is to educate oneself about the potential legal theories and solutions applicable to a client’s factual situation, determine likely legal and nonlegal outcomes, and use the accumulated information to strategize how best to influence courts,

305. See BEST PRACTICES, *supra* note 4, at 141–43 (explaining that context-based problem solving provides “anchor points” for learning and allows for construction of “schemas and mental models”).

306. See CARNEGIE REPORT, *supra* note 3, at 98–99.

307. *Id.* at 99.

308. David A. Binder & Paul Bergman, *Taking Lawyering Skills Training Seriously*, 10 CLINICAL L. REV. 191, 199 (2003) (discussing conceptual understanding and transfer). For a more detailed discussion of transfer, see *infra* notes 346–47 and accompanying text.

309. See Shirley Lung, *The Problem Method: No Simple Solution*, 45 WILLAMETTE L. REV. 723, 745–47 (2009). Helping students strengthen how they organize and structure their legal knowledge is critical to improving their abilities to comprehend and assimilate information. See *id.*

310. See Simons, *supra* note 251, at 370, 373.

mediators, opposing counsel, and other players in the legal system.³¹¹ This requires a process of creating a research plan, researching, reflecting on what has been found, applying it to both the issue at hand and to the original research plan, and repeating the process as needed until applicable legal context and specific rules and procedures are distilled.³¹²

Taught as a flexible process of problem solving, legal research also provides students with the framework or schemas necessary to overcome the potentially destructive impact the automation of the law has on the structure of law.³¹³ When students learn an adaptive research framework their knowledge transcends the specific research skills they have been introduced to in school. They understand how to approach new issues, with never before seen tools, in new and different jurisdictions.³¹⁴ This process-oriented description of legal research creates the mechanism by which legal research education can reinforce and model the problem-solving skills taught in other first-year law courses.³¹⁵ It also creates a learning environment in which the students are more actively engaged with legal research than they may have been in the past because research is seen not as separate and apart but directly connected to both what they are learning elsewhere and to the practice of law.³¹⁶ In this way, legal research assists students in organizing, understanding, and framing legal arguments in much the same way as does preparing for oral argument,³¹⁷ developing a legal strategy for depositions,³¹⁸ or

311. *Id.* at 373 (indicating that the purpose behind legal research is to deal with indeterminacy).

312. This adheres closely to the circular four stage learning process of “experience, reflection, theory, and application.” See BEST PRACTICES, *supra* note 4, at 166. Legal research is a process for teaching oneself about the law, and as such it makes sense that the process of legal research should reflect optimal experiential learning patterns.

313. See Sabrina Sondhi, *Should We Care if the Case Digest Disappears?: A Retrospective Analysis and the Future of Legal Research Instruction*, 27 LEGAL REFERENCE SERVS. Q. 263, 274–75 (2008) (suggesting that as full text searching renders the classic digest-based legal framework obsolete, there is a need to introduce students to the conceptual purpose of the digest).

314. Callister, *supra* note 6, at 34. Such structure can also help students frame their self-directed learning. See Lung, *supra* note 309, at 749.

315. See Callister, *supra* note 6, at 33–34.

316. See BEST PRACTICES, *supra* note 4, at 142 (explaining that students are more engaged in learning when it is placed in context); Callister, *supra* note 6, at 33–34..

317. See McElroy, *supra* note 283, at 594–95.

318. David A. Binder, Albert J. Moore & Paul Bergman, *A Depositions Course: Tackling the Challenge of Teaching for Professional Skills Transfer*, 13 CLINICAL L. REV. 871, 872, 897–98 (2007).

conducting factual investigation.³¹⁹ Finally, when legal research is taught as an iterative problem-solving process requiring analysis, synthesis, and application of information to the facts and issues at hand, it reinforces the process of “learning to think like a lawyer” that all first-year classes strive to teach.

C. Include Information Literacy in Legal Research Education

To navigate the oceans of information (legal and otherwise) currently swamping the legal system, law students must become information literate: able to identify reliable, authentic information from online clutter or misinformation, critically evaluate the information, and then use it effectively.³²⁰ The growth of computers, computerized legal research, and the Internet has increased the importance of teaching students to apply critical thinking skills to both web and fee-based research systems.³²¹ Law students arrive at law school overly confident in their general research capabilities³²² when in actuality their research skills are poor and they often fail to

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319. Raleigh Hannah Levine, *Of Learning Civil Procedure, Practicing Civil Practice, and Studying A Civil Action: A Low-Cost Proposal to Introduce First-Year Law Students to the Neglected MacCrate Skills*, 31 SETON HALL L. REV. 479, 506–07 (2000) (suggesting that training first-year students with simulated factual investigations in first-year civil procedure courses helps students understand the relationship between law and facts, the need for carefully articulated legal theories, and introduces them to the iterative nature of legal thinking).
320. See Sarah Hooke Lee, *Preserving Our Heritage: Protecting Law Library Core Missions Through Updated Library Quality Assessment Standards*, 100 LAW LIBR. J. 9, 34 (2008) (describing the “essential new skill” of information literacy); Danner, *supra* note 159, at 193–94 (defining information literacy as having the ability to recognize when information is needed and having the ability to locate, evaluate, and use that information effectively) (citing AM. LIBRARY ASS’N, PRESIDENTIAL COMMITTEE ON INFORMATION LITERACY FINAL REPORT 1 (1989)).
321. MacLachlan, *supra* note 95, at 609. MacLachlan argues that the extent of publicly available legal and government information on the web requires lawyers to possess a high level of Internet research skills. *See id.* He also suggests that law schools must begin to prepare law students by incorporating Internet research skills into all aspects of the curriculum, suggesting that “three years of ‘free’ student access to Westlaw and Lexis and possibly a first-year research lecture on the Internet will be insufficient to assure minimal competency.” *Id.* Accord Margolis, *supra* note 264 (arguing that today’s information environment requires that lawyers utilize the Internet and other law-specific databases or systems such as LexisNexis and Westlaw when conducting research).
322. See Gallacher, *supra* note 113, at 189–90 (discussing Gallacher’s, as well as others’ surveys of law students’ assessments of their research skills).

understand basic research methodologies and tools.³²³ Unfortunately, it is likely this situation will only continue to worsen in the next decade.³²⁴ Thus, it becomes incumbent on law school legal research programs to include information literacy skills in their curriculum until students arrive at law school with better general research skills.³²⁵

Information literacy skills teach students to evaluate information, gauging its authenticity and reliability, and assessing its strengths and weaknesses.³²⁶ The research done by judges and practitioners is increasingly moving from the realm of relatively controlled fee-based legal databases to the wild and dangerous world of information on the Internet³²⁷ making information literacy necessary. In addition, the critical thinking and evaluative skills necessary for information literacy overlap considerably with the skills of expert problem solvers,³²⁸ thus designating legal research education as a problem-solving process. The same “careful instruction, study, practice, and

323. See Roach, *supra* note 113, at 308 (observing that incoming law students who should have received research training in graduate and undergraduate schools lack even foundational experience conducting research, and are not familiar with basic research tools) (citations omitted).

324. *Id.* at 300–01 (reporting that surveys of graduate and undergraduate preparedness suggest law student preparedness will not improve in the next ten years).

325. See Gallacher, *supra* note 113, at 193–94 (arguing that law schools must undertake to teach information literacy); Mark de Jong, *A Response to a “Modest Proposal,”* 97 LAW LIBR. J. 193, 193–94 (2005) (arguing for the need to successfully integrate information literacy into the learning process); Paul D. Callister, *Law and Heidegger’s Question Concerning Technology: Prolegomenon to Future Law Librarianship*, 99 LAW LIBR. J. 285, 304 (2007) (urging that improving research skills and information literacy should be a law library objective); Peoples, *supra* note 115, at 679 (“Law librarians should formulate . . . standards and competencies for [teaching] legal information literacy and integrate them into basic and advanced legal research instruction.”). Several law schools already teach information literacy. See, e.g., Richard A. Danner, S. Blair Kauffman & John G. Palfrey, *The Twenty-First Century Law Library*, 101 LAW LIBR. J. 143 (2009) (discussing information literacy at Duke Law School); Kenneth J. Hirsh & Wayne Miller, *Law School Education in the 21st Century: Adding Information Technology Instruction to the Curriculum*, 12 WM. & MARY BILL RTS. J. 873, 874, 878 (2004) (describing courses covering information literacy).

326. Richard A. Danner, *Focus on Information Literacy: Law Schools Face Challenges Posed by Students’ Reliance on Online Material for Research*, NAT’L L. J., July 17, 2000, at C9.

327. See *supra* Part II.C (discussing the rise in Internet research).

328. See Lung, *supra* note 309, at 14 (stating that effective problem solving entails identifying what must be learned, evaluating old and new knowledge, determining how to locate useful information, and assessing how to apply this new information).

reflection that will help students more quickly become effective, responsible problem-solvers³²⁹ will also impart information literacy skills. Further, today's law students are "just in time learners" focused on learning information-acquisition skills to find any information they might need in the future when the need arises.³³⁰ Information literacy is the key for "just in time" learners to locate, sort, and manage the oceans of information they will confront throughout their legal careers.

D. Incorporate Progressive Pedagogies in Legal Research Education

Both Best Practices and the Carnegie Report argue for wholesale changes in legal education.³³¹ Much of their arguments are based on legal education's over-reliance on the case dialogue method of teaching³³² and the failure of law schools to adopt adult-learning-centered educational practices.³³³ Fortunately, law schools can look toward the growing body of work on teaching techniques, adult learning styles, and law school pedagogy produced by clinicians and skills instructors.³³⁴ Legal research programs should also turn toward clinics and lawyering programs to improve their courses.

As effectively teaching legal research becomes both more difficult and more necessary, it is important to create a learning environment where students are actively engaged in learning legal research. Adopting progressive education methodologies, most of which are

329. BEST PRACTICES, *supra* note 4, at 65.

330. Tracy L. McGaugh, *Generation X in Law School: The Dying of the Light or the Dawn of a New Day?*, 9 LEGAL WRITING: J. LEGAL WRITING INST. 119, 127-28 (2003) (comparing traditional "just in case" learning that focuses on acquiring information that the student may need sometime in the future with "just in time learning" that focuses on learning "information-acquisition skills").

331. BEST PRACTICES, *supra* note 4, at 7-9; CARNEGIE REPORT, *supra* note 3, at 185, 191, 202.

332. See CARNEGIE REPORT, *supra* note 3, at 5-7 (describing law schools' embracing of a Langdellian study of law at the expense of addressing practice skills and the law's relationship to morality and public responsibility); BEST PRACTICES, *supra* note 4, at 132-33 (calling specifically for a reduction in reliance on the Socratic method).

333. See BEST PRACTICES, *supra* note 4, at 3.

334. See, e.g., Arturo López Torres & Mary Kay Lundwall, *Moving Beyond Langdell II: An Annotated Bibliography of Current Methods for Law Teaching*, 35 GONZ. L. REV. 1 (2000); Arturo López Torres, *MacCrate Goes to Law School: An Annotated Bibliography of Methods for Teaching Lawyering Skills in the Classroom*, 77 NEB. L. REV. 132 (1998).

centered upon active learning theories,³³⁵ will enhance student understanding and participation in a legal research class. Active learning methodologies are recognized for teaching critical thinking and problem-solving skills and for teaching students to take more responsibility for their own learning experience.³³⁶ However, active learning is not merely a collection of techniques. In a law school setting, it is a “belief that legal education should help students understand legal concepts and theory, improve critical thinking, and develop professional skills and values.”³³⁷

A legal research course that employs progressive pedagogies facilitates learning and retention of research skills.³³⁸ For example, a legal research course organized to facilitate self-direction and experiential learning optimizes the potential of teaching lifelong learning skills.³³⁹ This is crucial for teaching information literacy skills to students who are more focused on learning skills necessary to find information only when and if they need it in the future.³⁴⁰ A legal research course built around schema theory,³⁴¹ which teaches students to recognize and distill legal structures during the research process, could enhance students’ ability to withstand the erosion of shared legal frameworks caused by the rise of computerized research.³⁴² In addition, the set of complex tasks that make up legal

335. Active learning, a key component of skills education, “seeks to focus students . . . on what they are learning [as well as] *how* they are learning.” Gerald F. Hess, *Principle 3: Good Practice Encourages Active Learning*, 49 J. LEGAL EDUC. 401, 402 (1999). It also requires students to be more active and to accept more responsibility for their own educations. *Id.* at 401–02.

336. *Id.* at 402.

337. *Id.*

338. See generally John O. Sonsteng et al., *A Legal Education Renaissance: A Practical Approach for the Twenty-First Century*, 34 WM. MITCHELL L. REV. 303 (2007) (emphasizing the importance of a “legal education renaissance”).

339. See *id.* at 400 (“When students learn how to learn from experience, they continue to learn from experience throughout their careers.”); BEST PRACTICES, *supra* note 4, at 66 (suggesting that law schools include self-reflection and lifelong learning skills as part of their programs of instruction, and indicating that reflection skills are the “key skill set of lifelong learners”).

340. These students are nicknamed the “just in time” learners. See, McGaugh, *supra* note 330, at 127–28.

341. See Gary L. Blasi, *What Lawyers Know: Lawyering Expertise, Cognitive Science, and the Functions of Theory*, 45 J. LEGAL EDUC. 313, 336–38 (1995).

342. See *id.* at 355–61 (describing expertise as “structured knowledge” and suggesting structures are important for transference of knowledge from one circumstance to another). Blasi also argues that engagement, reflection, and other active learning environments increase the likelihood that students will create schemas or structures.

research requires a continual sorting and resorting of information, analytical reasoning, and continual application of law to facts.³⁴³ This fluid and intricate problem solving cannot be taught with techniques that conceptualize it as routine and repetitive tasks.³⁴⁴ Rather, learning legal research requires “far transfer” or situational adaptation of basic principles to specific problems.³⁴⁵ “Transfer” is a student’s ability to employ skills she has learned in one context to a different context.³⁴⁶ Teaching transfer is critical in legal research and requires teachers to adopt adult learning pedagogies.³⁴⁷

While some legal research courses have adopted progressive teaching methodologies with positive results,³⁴⁸ many if not most are advance legal research classes serving a small portion of the student population.³⁴⁹ If legal research is to be taught effectively, it must be taught effectively to all students, including those whose only legal research class is in the first year of law school. As legal research

Id.; see also Lung, *supra* note 309, at 744–45 (contrasting an expert learner’s use of recognition of deep structure with a novice learner’s inability to see structure); Sondhi, *supra* note 313, at 275 (claiming that inculcating the digest classification system in students allows them to recognize shared legal context and vocabulary).

343. See *supra* notes 228–38 and accompanying text.

344. See Franklin, *supra* note 233, at 130–32 (providing an excellent contrast between classic and “in context” methods for teaching something as potentially uninteresting as legal citation). Franklin argues that while legal citation can be taught merely as the technical application of Bluebook rules, it is better taught by allowing students to recognize the legal context in which the citation is to be used. *Id.* at 131–32. Franklin gives the example of providing a short exercise to students that allows students to connect the information contained in a legal citation to the substantive legal analysis for which they are attempting to use the citation. *Id.* at 131. This provides a context in which students can actually begin to learn why correct citation format is necessary, rather than merely memorizing the Bluebook rules. *Id.* at 131–32.

345. Binder, Moore & Bergman, *supra* note 318, at 883.

346. Binder & Bergman, *supra* note 308, at 197–98 (“Learning theorists distinguish between ‘near’ and ‘far’ transfer. Near transfer occurs when students are able to apply skills that they have been taught to tasks that are relatively routine and repetitive in nature. . . . [Far transfer] . . . involves situational adaptations and problem solving. . . . [W]ith ‘far transfer tasks, the performer must translate basic principles into tailored procedures to fit the unique needs of the situation.’” (quoting Ruth Clark & Merlin C. Wittrock, *Psychological Principles of Training*, in *Training and Retraining* 77–78 (Sigmund Tobias & J. D. Fletcher eds., 2000))).

347. *Id.* at 198–202 (describing the techniques and methods that promote transfer).

348. See, e.g., Simons, *supra* note 251 (teaching research as “structure and process” to move advanced legal research students beyond a simplistic view of research); Gerdy, *supra* note 198 (discussion of learning centered assessments in legal research); Eileen B. Cohen, *Using Cognitive Learning Theories in Teaching Legal Research*, 1 No. 3 PERSPECT. TEACHING LEGAL RES. & WRITING 79 (1993).

349. See Hemmens, *supra* note 103, at 214.

becomes increasingly difficult to learn, it must be taught using the methodologies that provide the best chance for student success. These are the progressive pedagogies already used in some parts of the law school curriculum.

When legal research is integrated into the first-year curriculum, uses the cases taught in doctrinal classes, builds upon the authorities used in legal writing, and references the issues other courses are discussing, it creates a synergy that supports student learning. When legal research is taught as an iterative and analytic process of problem solving, it supports the teaching of legal analysis. When legal research programs include information literacy, it provides students with skills to understand and manage the ever-increasing burden of information. When legal research is taught using the education practices outlined in the Carnegie Report and Best Practices, students learn better in the moment, and they become lifelong learners able to manage future changes in legal information. Further, when legal research is informed with these principles, it comes alive and students become willing to put in the time and effort necessary to become proficient in legal research, analysis, and lawyering.

VI. CONCLUSION

Most law schools provide legal research instruction that is not only ineffective in teaching basic research skills, but is potentially hazardous to students learning legal analysis. As the tide of information begins to overwhelm law students and disintegrate the structures of the American legal system, law schools continue to teach legal research as they always have, blithely ignoring the rising waters. However, law schools have within their own programs the materials necessary to build a superior research program. By reorganizing, law schools can create programs that support learning legal analysis and the other skills necessary for successful completion of law school and practicing law.

To implement such a program, legal research must be recognized as a fundamental skill. This will prompt schools to reorganize their research programs so that they are integrated into the entire first-year curriculum. It will encourage legal research to be taught as an iterative process of problem solving and to include concepts of information literacy. It will also provide the support necessary to integrate adult learning methodologies into these courses. Such a re-

imagining of legal research will provide a class where students are “less bewildered by the challenges they face and more enmeshed in the purpose[s] of their education.”³⁵⁰ To turn away from this challenge is to leave students alone to face the ocean of information currently eroding their abilities to find, manage, and understand the law.

Felix Frankfurter described legal research as requiring “the poetic quality of imagination that sees significance and relation where others are indifferent or find unrelatedness; the synthetic quality of fusing items theretofore in isolation; above all the prophetic quality of piercing the future, by knowing what questions to put and what directions to give to inquiry.”³⁵¹

Legal research can be rebuilt so that it fulfills this description. It can be rebuilt to increase student success. It can be rebuilt to support bridges to other first-year courses, and it can be rebuilt to help create the holistic view of legal education advanced by the Carnegie Report and Best Practices. When recognized and rebuilt as a fundamental skill, legal research can be a lifeboat for law students and law schools alike.

350. Franklin, *supra* note 233, at 134 (discussing re-imagining teaching in the context of legal citation).

351. Felix Frankfurter, *The Conditions for, and the Aims and Methods of, Legal Research*, 15 IOWA L. REV. 129, 134 (1930).