

Institutionalizing Legal Innovation: The (Re)Emergence of the Law Lab

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Introduction

For more than a century, law schools have borrowed educational methodologies from other disciplines. Most obviously, medical education provided inspiration for 19th-century law school-based “legal dispensaries,”¹ and then later, “clinics,”² as legal educators sought practical, experiential approaches that would augment the case method of instruction widely adopted by law schools since the 1890s.³ Law school clinics are now well-established, and have continued to evolve over the decades, notably expanding their work to address a range of social justice issues that go beyond individual client representation.⁴ Yet as the terrain for legal education continues to shift in the 21st century, law schools are again looking across disciplines for new approaches to legal education, with a number of law schools recently establishing “law labs.”⁵

This article examines this new law lab movement, focusing on a subset of legal innovation labs, including the Northeastern University’s NuLawLab

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1. Margaret Barry, Jon Dubin & Peter Joy, *Clinical Education for this Millennium: The Third Wave*, 7 *CLINICAL L. REV.* 1, 6 (2000).
2. Jerome Frank, *Why Not a Clinical Lawyer-School?* 81 *U. PA. L. REV.* 907, 920 (1933).
3. Jerome Frank, *A Plea for Lawyer-Schools*, 56 *YALE L.J.* 1304, 1315 (1947) (discussing the case method).
4. See, e.g., Jon Dubin, *Clinical Design for Social Justice Imperatives*, 51 *SMU L.REV.* 1461 (1998); Deena Hurwitz, *Lawyering for Justice and the Inevitability of Human Rights Clinics*, 28 *YALE J. INT’L L.* 505 (2003).
5. See, e.g., University of Michigan Law School, *Transactional Lab & Clinic*, *CLINICAL PROGRAMS*, <http://www.law.umich.edu/clinical/tlc/Pages/default.aspx> (last visited May 29, 2015) (“TLC works with large, national or multinational organizations and, beginning in Fall 2015, small organizations in the local community around the Law School.”); Northeastern University School of Law, *NULawLab*, www.nulawlab.org (last visited May 29, 2015) (“We are the innovation lab at Northeastern University School of Law.”).

with which I am affiliated. In Part I, I plot out the original conception of law labs as part of the legal realist-era law clinic movement, and the parallels between law labs and traditional clinics. For example, both law labs and clinics borrow terminology and specific methodologies from the sciences, particularly medicine, and both arise in reaction to the entrenched case method or podium classroom methodology in legal education. In Part II, I examine the differences between contemporary law labs and traditional clinics. In particular, I pose the question “Why a Law Lab?” and examine the cultural significance of the “lab” concept at a time when law schools are experiencing widespread criticism and critique.⁶ Finally, in Part III, I describe several law labs focused on legal innovation in greater detail, including a firsthand account of the NuLawLab’s work. Through this descriptive process, I attempt to identify the unique methodologies that these law labs seek to introduce—and institutionalize—in the law school setting.

I: From Law Dispensaries and Laboratories to Clinics: Reacting to the Case Method

In the 1870s, Christopher Columbus Langdell, dean of Harvard Law School, established the “case method” of law school instruction.⁷ Focused on judicial opinions, particularly appellate decisions, the approach was intended to teach students to read a case with insight and precision, and to think critically about the law. Interestingly, Langdell viewed this approach as one that presented law as a science, embodying the “scientific spirit.”⁸ Combined with Socratic dialogue in the classroom, the case method also had the effect, perhaps unintended, of training students to think on their feet in ways similar to what is required in an appellate oral argument.⁹ Widely and rapidly adopted by other law schools and law professors, the case method still remains today the “primary method of education in American law schools.”¹⁰

But as has been noted by both students and commentators for more than a century, the case method does not introduce students to many of the important aspects of the practice of law, such as solving problems and responding to clients. Taking up Langdell’s own analogy of law to science, the case method seems to rely exclusively on theoretical inquiry and logical analysis without

6. See, e.g., BRIAN TAMANAHA, *FAILING LAW SCHOOLS* (2010); A. Benjamin Spencer, *The Law School Critique in Historical Perspective*, 69 WASH. & LEE L. REV. 1969 (2012).
7. Russell Weaver, *Langdell’s Legacy: Living with the Case Method*, 37 VILL. L. REV. 517, 518 (1991). See generally BRUCE KIMBALL, *THE INCEPTION OF MODERN PROFESSIONAL EDUCATION: C.C. LANGDELL, 1826-1906* (2009).
8. Frank, *supra* note 3, at 1304.
9. *Id.*; Myron Moscovitz, *Beyond the Case Method: It’s Time to Teach with Problems*, 42 J. LEGAL EDUC. 241, 244 (1992).
10. David D. Garner, *The Continuing Vitality of the Case Method in the Twenty-First Century*, BYU EDUC. & L. J. 307, 307 (2000).

the experimentation and testing that is also seen as an essential component of scientific method.¹¹

In the initial decades of the case method's adoption, students took it upon themselves to address this gap in their training: as early as 1893, students at the University of Pennsylvania Law School established a "legal dispensary,"¹² and a few other schools followed suit.¹³ These dispensaries and other similar volunteer, student-led legal aid bureaus were intended to provide experiential opportunities to law students while also providing assistance to those clients who could not afford lawyers.¹⁴

By the late 1920s, some legal scholars—many identified with the Legal Realist school of jurisprudence—had taken up the cause of expanding experiential learning within law schools.¹⁵ Again, science was a touchstone. Writing in 1929, Duke Law School Professor John Bradway, a leader in the law clinic movement and Secretary of the National Association of Legal Aid Organizations, observed that "[o]ne may imagine that in time a group of young lawyers...trained in this way would do much to increase the standards of the profession in ethics and scientific inquiry, at any bar."¹⁶

Unlike Langdell's focus on the theory of law, Bradway's writings promoting experiential education addressed the need for experimentation and testing in legal training. "The classroom under the case method of instruction is more like a museum," he wrote.¹⁷ In contrast, Bradway observed, a clinic "is a sort of laboratory," where students could gather information through observations and record-keeping that "cannot be secured in bulk in any other way."¹⁸ In promoting the role of hands-on clinical practice in legal education, Bradway often offered analogies to other disciplines. For example, writing in the first

11. See *NSTA Position Statement: The Nature of Science*, NATIONAL SCIENCE TEACHERS ASSOCIATION, <http://www.nsta.org/about/positions/natureofscience.aspx> (last visited May 29, 2015).
12. Robert MacCrate, *Educating a Changing Profession: From Clinic to Continuum*, 54 TENN. L. REV. 1099, 1103 (1997).
13. See, e.g., ROBERT STEVENS, *LAW SCHOOL: LEGAL EDUCATION IN AMERICA FROM THE 1850S TO THE 1880S* 162 (1983); Frank, *supra* note 2, at 917 ("Suppose, however, that there were in each law school a legal clinic or dispensary.").
14. Barry, et al., *supra* note 1, at 6.
15. See e.g., Katherine Kruse, *Getting Real About Legal Realism: New Legal Realism and Clinical Education*, 56 N.Y.L. SCH. L. REV. 295, 296 (2011-2012) (noting that some of the earliest calls for clinical legal education came from the legal realist tradition); Carrie Hempel & Carroll Seron, *An Innovative Approach to Legal Education: The Founding of the University of California, Irvine, School of Law*, in *THE PARADOX OF PROFESSIONALISM: LAW AND THE POSSIBILITY OF JUSTICE* 169, 178-79 (Scott Cummings ed., 2011).
16. John S. Bradway, *The Beginning of the Legal Clinic of the University of Southern California*, 2 S. CAL. REV. 252, 275 (1928-1929).
17. John S. Bradway, *The Legal Aid Clinic as an Educational Device*, 7 AM. L. SCH. REV. 1153, 1157 (1934).
18. Bradway, *supra* note 16, at 275-76.

volume of the University of Chicago Law Review in 1934, Bradway averred that clinic-type instruction

has already found favor in other fields of training—for the physical sciences through laboratory work; for the social sciences through field work; for the medical field through highly organized hospital clinics, and for religious education through special assignments—is making its way slowly into the domain of law.¹⁹

In their earliest iterations, the experience-focused law school programs promoted by Bradway went by a variety of names, but by the 1930s, the terms dispensary and laboratory fell out of favor and the term “clinic” was widely adopted.²⁰ Like medical clinics, law school clinics served individuals in a community setting, and provided a training ground for law students to develop diagnostic skills while closely supervised by experienced legal practitioners.²¹ By adopting the “clinic” label, law school clinics signaled that they were not places to test hypotheses and mount experiments, but sites for teaching and applying established principles and techniques, sometimes paired with exercises in observation and data gathering.

Yet experimentation and application are not mutually exclusive. From the beginning, the clinic experience did not offer a predictable march through a preset curriculum, but instead provided students with a slice of the real world of law practice. In contrast to the case method of instruction, and similar to medical settings, clinical law students were presented with messy, unsorted facts, not distilled through an appellate litigation process. Bradway likened this to the work of a chemist:

The chemist, for example, deals with dangerously active elements. If not properly handled, they may destroy him and the laboratory. The young lawyer needs this baptism of fire, this sense of consequences of ill advised activities while he is still under supervision.²²

In such a volatile and unpredictable setting, invention and legal creativity, testing and experimentation, were sometimes the inevitable byproducts of the necessity to respond to live client needs on the fly.²³

19. John S. Bradway, *Some Distinctive Features of a Legal Aid Clinic Course*, 1 U. CHI. L. REV. 469, 469 (1934).

20. See, e.g., Stevens, *supra* note 13, at 157 n.14 (collecting 1930s and 1940s articles on legal clinics).

21. The French philosopher Michel Foucault has written about the origins of the medical clinic, tracing the concept of clinic as a place for medical observation to the late 18th century. MICHEL FOUCAULT, *THE BIRTH OF THE CLINIC: AN ARCHAEOLOGY OF MEDICAL PERCEPTION* 237 (A.M. Sheridan trans., Routledge 2003) (1963).

22. Bradway, *supra* note 16, at 1157.

23. *Id.* at 1159 (noting that when a live client is involved, “[t]here is a creative rather than an analytical problem to solve”).

During Jerome Frank's and John Bradway's time, these proposals for expanded clinical offerings had little broad impact on legal education but remained isolated experiments at a few schools.²⁴ But decades later, and after the significant expansion and theorizing of law school clinics in the 1960s,²⁵ clinics are a law school staple. Not that Bradway's clinics were the same as today's. Many law clinics now define community and client differently and more broadly than these early models. Human rights clinics, for example, are often located far from those they represent and may find it challenging to engage directly with the communities they serve.²⁶ Similarly, policy clinics may produce reports or draft legislation to support a government initiative, a nongovernmental project or an advocacy campaign rather than offer more traditional, individualized legal service and advice.²⁷ Nevertheless, four components—(1) legal practice (including client engagement), (2) student training through experience and reflection, (3) close supervision, and (4) social justice—remain central to, and defining of, the law school clinic idea across the decades and practice areas.²⁸

Law school clinics have been tremendously successful for many years, but they do not exhaust the approaches that law schools might borrow from other disciplines as faculty and administrators continue efforts to augment, challenge and perhaps ultimately supplant the case method.²⁹ John Bradway himself took special note of the lab methodology employed for educational purposes in the physical sciences, offering it as an example that law schools might explicitly emulate by establishing “law laboratories.”³⁰ Yet historically, law school clinics

24. Kruse, *supra* note 15, at 296-97 (“The legal realist call for clinical legal education waned without generating Frank’s proposed legal educational reform.”).
25. See, e.g., PHILIP G. SCHRAG & MICHAEL MELTSNER, *REFLECTIONS ON CLINICAL LEGAL EDUCATION* (1998).
26. Carrie Bettinger-Lopez, et al., *Redefining Human Rights Lawyering Through the Lens of Critical Theory: Lessons for Pedagogy and Practice*, 18 *GEO. J. POVERTY L. & POL’Y* 337, 376 (2011); Shannon Roesler, *The Ethics of Global Justice Lawyering*, 13 *YALE HUM. RTS. & DEV. L.J.* 185, 214 (2014).
27. See Georgetown Law Human Rights Institute, *TAPPED OUT: THREATS TO THE HUMAN RIGHT TO WATER IN THE URBAN UNITED STATES*, GEORGETOWN LAW HUMAN RIGHTS INSTITUTE (April 2013), <http://www.law.georgetown.edu/academics/centers-institutes/human-rights-institute/upload/HumanRightsFinal2013.pdf>.
28. See, e.g., Stephen Wizner, *The Law School Clinic: Legal Education in the Interests of Justice*, 70 *FORDHAM L. REV.* 1929, 1930 (2002) (“[T]he law school clinic is a teaching law office where students can engage in *faculty-supervised law practice* in a setting where they are called upon to achieve excellence in practice and to *reflect* upon the nature of that practice and its relationship to law as taught in the classroom and studied in the library” (emphasis added)); Hurwitz, *supra* note 4, at 527 (describing traditional pedagogical goals of clinics).
29. See generally David Garvin, *Making the Case: Professional Education in the World of Practice*, 106 *HARVARD MAG.* 56 (Sept.-Oct. 2003) (outlining challenges to the case method), [available at http://harvardmagazine.com/2003/09/making-the-case-html](http://harvardmagazine.com/2003/09/making-the-case-html).
30. John S. Bradway, *Law Laboratories: How Legal Aid Clinics Train Budding Lawyers*, *THE SURVEY*, June 1931, at 250. See also James Maxeiner, *Educating Lawyers Now and Then: Two Carnegie Critiques of the Common Law and the Case Method*, 35 *INT’L J. LEGAL INFO.* 1, 27 (2007) (discussing calls for legal

have emphasized only some parts of the lab methodology—those parts focused on practice, training, reflection and supervision. In contrast, the usual science lab elements of experimentation, prototyping, testing, and invention are less often incorporated into law school clinic practice. While it appears that there was little takeup of the more expansive science lab model either in the 1930s or when the clinical movement burgeoned in the 1960s, in the 21st century, an era of entrepreneurship and innovation, law school labs are on the rise.³¹

Like the clinics that preceded them, contemporary law school labs borrow methods and language from the sciences, while tailoring the particular approaches to a law school setting. Also, like clinics before them, law school labs are a reaction to the limitations of the case method—limitations that are even more apparent in the 21st century, when few cases ever reach trial and students (and the larger public) have fingertip access to digested case law and analyses.³² As the legal profession itself transitions away from positioning lawyers as trained technicians to presenting them as society’s problem solvers writ large, the lab model becomes more attractive as a training tool for the future of the profession.³³

But what is a law lab? Some of the recently established law school-based labs are similar to direct-service law clinics. Other labs are research centers, pursuing a policy agenda using traditional modes of advocacy. A handful of law labs are “legal innovation labs,” explicitly engaged in experimentation and iterative prototyping to develop new approaches to legal practice and education. While these “change labs” focus on an array of different issues, each of them has embraced the central idea of a lab as a motor of innovation. The meaning of “lab” in this context and the distinctive components of several law school innovation labs are explored further below.

II. Why a Law Lab?

When John Bradway wrote in 1934, he equated the “lab” with other forms of experiential education, viewing it as a pedagogical technique that was on a par, and interchangeable, with a clinic or a field placement.³⁴ This is consistent with the dictionary definition of “laboratory”:

education to adopt a medical model).

31. See, e.g., Henry W. Chesbrough, *The Era of Open Innovation*, 44 MIT SLOAN MGMT. REV. 35 (Spring 2003) (describing the growth of the innovation culture).
32. See, e.g., Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL LEGAL STUD. 459, 468 (2004); Robert P. Burns, *What Will We Lose If the Trial Vanishes?*, 37 OHIO N.U. L. REV. 575, 576-79 (2011). See also JOURNAL OF OPEN ACCESS TO LAW, <https://ojs.law.cornell.edu/index.php/joal> (last visited May 28, 2015) (promoting open access to law and legal documents, founded in 2013).
33. For evidence of this positioning, consider the ABA’s John W. Cooley Lawyer as Problem Solver Award, *Lawyer as a Problem Solver*, A.B.A., http://www.americanbar.org/groups/dispute_resolution/awards_competitions/lawyer_as_problem_solver_award.html (last visited May 29, 2015).
34. Bradway, *supra* note 17.

1. a. A room or building equipped for scientific experimentation or research.
b. An academic period devoted to work or study in such a place.
2. A place where drugs and chemicals are manufactured.
3. A place for practice, observation, or testing.³⁵

But in recent decades, with the rise of technology and increased fascination with innovations and innovators, the descriptor “lab” has taken on new meaning and significance.³⁶ The lab has moved from the marginal activity of a closed clique of specialized scientists and their students to a far more central and open methodology for creative production and problem-solving. An important step in this transformation was the creation of the quintessential modern innovation lab, Bell Labs, in 1925.³⁷ Importantly, one of Bell Labs’ signature attributes—often cited as a key to its success—was the colocation of pure scientific research alongside experimentation to develop scientific breakthroughs and practical applications relevant to AT&T’s communications business.³⁸ Far from being a place for practical, experiential training as Bradway imagined a lab or as suggested in the dictionary definitions, Bell Labs invested heavily in both substantive theory and practical applications.

The NuLawLab and the other law school innovation labs identified in this article seek to follow the path blazed by Bell Labs, albeit in a different context. Law school clinics are sites where students’ hard-won subject matter expertise is applied to assist individuals or groups (i.e., clients) to diagnose legal problems and propose treatment—a process that subjects clients to a legal examination or, to paraphrase Foucault, a “legal gaze.” Legal innovation labs have a different emphasis. They are sites of theoretical inquiry, collaborative processes, and, sometimes, surprising results. At a legal innovation lab, both failures and breakthroughs are expected and valued. At a legal innovation lab, clients—when there are clients—are collaborators with students and staff, and all share the risks and rewards of the process and outcomes.³⁹

Surprisingly little has been written about this emergent concept of “the lab” as a site for innovation in the larger culture, but a handful of commentators have examined this development. For example, in his book titled *The Lab*:

35. AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2011), available at <http://www.thefreedictionary.com/laboratory>.
36. On the general rise of innovation, see Walter Isaacson, *The Innovators; The Age of Mass Innovation*, THE ECONOMIST (Oct. 11, 2007), <http://www.economist.com/node/9928291> (“We are all innovators now.”).
37. See generally JOHN GERTNER, *THE IDEA FACTORY: BELL LABS AND THE GREAT AGE OF AMERICAN INNOVATION* (2013).
38. Jon Gertner, *Opinion; True Innovation*, N.Y. TIMES (Feb. 25, 2012) (“Quite intentionally, Bell Labs housed thinkers and doers under one roof.”), available at http://www.nytimes.com/2012/02/26/opinion/sunday/innovation-and-the-bell-labs-miracle.html?_r=0.
39. The co-design relationship between lawyer and client may raise ethical issues for lawyers, perhaps parallel to some of the ethics challenges identified by collaborative lawyers. See, e.g., Scott R. Peppet, *The (New) Ethics of Collaborative Law*, DISPUTE RESOLUTION MAGAZINE, Winter 2008 at 23.

Creativity and Culture, Professor David Edwards describes in detail the creation of Edwards' own contemporary art/science lab, Le Laboratoire affiliated with Harvard University.⁴⁰ Musing about the common threads that tie together successful innovation labs, from Google Labs to the MIT Media Lab to IDEO to Le Laboratoire, Edwards observes shared traits and approaches that enable these entities to move from initial theories and ideas to realities. First, he identifies the need for a creator, a central motivating force of some kind (maybe a person or a shared goal) that produces an impetus to continually generate rough new ideas ready for refinement and testing with support from others. Second, he writes, several processes are common among innovation labs: “[i]nterdisciplinary collaboration, rapid prototyping, exhibition or demonstration, and translation of ideas into products or processes with beneficial social impact.”⁴¹ It is these lab processes, very different from established law school clinical methodologies, that the NuLawLab and other legal innovation labs seek to translate for the law school setting.

Interestingly, outside of the sciences, humanities scholars have already been particularly proactive in adapting innovation lab methodologies to new settings. It is perhaps no coincidence that within the academic circles the humanities have been under attack and, at times, marginalized in recent years by reductions in funding coinciding with an increasing prioritization of job-ready training in science and technology.⁴² By adopting an overtly scientific approach associated with progress and innovation, humanities scholars may hope to strengthen their position within universities and head off further criticism and cuts.

In the humanities context, as early as 1999, Professor Cathy Davidson, then of Duke University, asked in the *Chronicle of Higher Education*, “What if scholars in the humanities worked together, in a lab?”⁴³ Davidson’s vision of the lab’s role in the humanities setting has clear resonance for law. In a lab, she observes,

discovery of one sort or another is the shared, overt goal. ...Sometimes the steps forward are small, sometimes gigantic, but they’re almost always built on the foundation of previous experiments and ideas. A lab supports work that is new, and it concomitantly requires collaboration across fields and disciplinary subfields, as well as across generations.⁴⁴

Davidson’s initial idea took hold, and the humanities innovation lab movement

40. DAVID EDWARDS, *THE LAB: CREATIVITY AND CULTURE* (2010).

41. *Id.* at 23.

42. Ella Delaney, *Humanities Studies Under Strain Around the Globe*, N.Y. TIMES (Dec. 1, 2013), http://www.nytimes.com/2013/12/02/us/humanities-studies-under-strain-around-the-globe.html?pagewanted=all&_r=0.

43. Cathy Davidson, *What if Scholars in the Humanities Worked Together, in a Lab*, CHRON. HIGHER EDUC. (May 28, 1999), available at <https://chronicle.com/article/What-If-Scholars-in-the/24009>.

44. *Id.*

is robust. Humanities labs now exist at Duke, Stanford, Brown, Northwestern, Amherst, and many other schools in the United States and abroad.⁴⁵ Indeed, Le Laboratoire—“where artists and designers experiment at the frontiers of science”—is an example of a successful humanities lab.⁴⁶

The recent growth of law labs clearly has some parallels to the lab movement in the humanities. Lawyers, law practice and legal education are under attack in mainstream media, and calls for change even emanate from the Oval Office.⁴⁷ Law school enrollments have dropped dramatically in recent years, and some law schools have been forced to consider mergers and layoffs, and some in the media anticipate law school closures.⁴⁸ Under these circumstances, where law schools are trying to develop new approaches while also shifting the conversation away from legal education’s failures to a more positive note, adapting the innovation lab model for a law school setting is particularly attractive. As Cathy Davidson noted in the humanities context, while change is frightening, a lab format may moderate those fears; though the lab is itself a change agent, the process for moving toward change often builds methodically step by step from prior observations and results through trial-and-error experimentation, prototyping, and iteration.

If anything, one would expect that the legal profession would be more change-averse than the humanities. In law, avoiding risk, building on precedent, and preserving stability are fundamental values.⁴⁹ Yet as in the humanities context, perhaps the lab model—while allowing for change—is especially responsive to, and respectful of, these underlying core values of the discipline.

At the same time, and in tension with the idea of incremental building and iterative movement, the concept of the legal innovation lab also embodies hope for a breakthrough paradigm shift. This possibility is “cooked in” to the cultural ethos of an innovation lab, and historic precedents underscore the

45. The new Humanities Lab at American University is an example. The lab’s website reports: “The Humanities Lab will. . . foster collaborations between schools and departments, through public lectures and symposia, community projects and outreach, faculty research seminars and working groups, online resources and events, new curricular initiatives, collaborative projects and publications, and support for graduate and undergraduate student research projects.” *Introducing: Humanities Lab*, AM. U. <http://www.american.edu/cas/humanities-lab/> (last visited May 29, 2015).
46. See LE LABORATOIRE, <http://www.lelaboratoire.org/en/> (last visited May 29, 2015).
47. See, e.g., Colleen Flaherty, *2 Years for Law School?*, INSIDE HIGHER ED (Aug. 26, 2013), available at <https://www.insidehighered.com/news/2013/08/26/president-obama-calls-cutting-year-law-school> (describing President Obama’s critique of legal education).
48. Maura Lerner, *Hamline, William Mitchell Law Schools to Merge, to Merge*, MINN. STAR TRIB. (Feb. 13, 2015), available at <http://www.startribune.com/local/stpaul/291856891.html>; Ashby Jones & Jennifer Smith, *Amid Falling Enrollments, Law Schools are Cutting Faculty*, WALL ST. J. (July 15, 2013, 4:39 PM), available at <http://www.wsj.com/articles/SB10001424127887323664204578607810292433272>.
49. Lawyers know well that without legal stability and predictability, individuals may have difficulty managing their affairs effectively.

point. Fourteen scientists affiliated with Bell Labs have been awarded eight Nobel Prizes for both theoretical and practical advances in communications.⁵⁰ The MIT Media Lab has reinvented itself with every passing decade and is now “focusing on ‘human adaptability’—work ranging from initiatives to treat conditions such as Alzheimer’s disease and depression, to sociable robots that can monitor the health of children or the elderly, to the development of smart prostheses that can mimic—or even exceed—the capabilities of our biological limbs.”⁵¹ Perhaps it is possible that a legal innovation lab might reinvent law and law practice in positive ways that could simply not be envisioned without the freedom provided by the “change lab” methodology—developing new modes of legal outreach and education, and even redesigning law itself.

In sum, the contemporary concept of the law lab, and particularly the legal innovation lab, is a serious effort to respond to the critiques of legal education and the challenges facing the legal community. Perhaps by combining theory with practice and change with stability in new ways heretofore foreign to the law school setting, a law lab can jump-start the process of redesigning law practice for the 21st century. As described below, NuLawLab and other law school-based legal innovation labs are testing the potential for these “change lab” methodologies in law school settings.

III. Legal Innovation Labs

There are many law school labs, but no umbrella organization to unite them such as the Clinical Legal Education Association for clinics or the National Association for Law Placement for placement offices. In the absence of a law school lab organization, I identified law school labs by conducting Internet searches, scouring law school websites, and initiating conversations with law school faculty members who might aid in identifying such projects. I searched only for law school-based centers or projects that use the term “lab” in their name, based on my conclusion that this term has a unique cultural meaning. Because of this focus, Harvard Law School’s Berkman Center, for example, does not appear on my list, nor does the University of Miami’s innovative initiative Law Without Walls. Likewise, I did not include independent, non-law school law labs in this list. This effort yielded the following list of law school labs:⁵²

Boston College Legal Services Lab

Boston University Lawyering Lab

Experiential Learning Lab, New York University School of Law

50. See *Bell Labs*, Alcatel-Lucent <http://www.alcatel-lucent.com/bell-labs> (last visited May 29, 2015).
51. See *Mission and History*, MIT MEDIA LAB, <http://www.media.mit.edu/about/mission-history> (last visited May 29, 2015).
52. For more information about law school innovation initiatives, see Renee Knake, *Cultivating Learners Who Will Invent the Future of Law Practice: Some Thoughts on Educating Entrepreneurial and Innovative Lawyers*, 38 OHIO N.U. L. REV. 847 (2012).

Harvard Food Law Lab
 Hofstra Law, Logic, and Technology (“LLT”) Research Lab
 Immigrants’ Rights Lab, University of Denver Sturm College of Law
 NuLawLab, Northeastern University School of Law
 ReInvent Law Lab, Michigan State University School of Law
 Stanford Law and Policy Lab
 Transactional Lab, University of Michigan
 University of Chicago Constitutions Lab
 University of Chicago Kirkland & Ellis Corporate Lab
 Vanderbilt International Law Practice Lab
 Vanderbilt Patent Prosecution Lab

This is a growing list, and new labs were added even during the few months I was completing this research.

Every law lab has its own story, and this article does not make any attempt to tell them all. Some of the labs listed above, like the University of Denver Immigrants’ Rights Lab⁵³ or the University of Chicago Kirkland & Ellis Corporate Lab,⁵⁴ focus on practice and provide opportunities for clinical experience and client representation; others, like the Harvard Food Law Lab, focus on research and policy change.⁵⁵ This article highlights three law labs – the Hofstra LLT Lab, the ReInvent Law Laboratory, and the NuLawLab – that explicitly build on the scientific innovation lab model, and that attempt to combine theory and practice in new ways to challenge the traditions of legal education and legal practice. Each of these labs has embraced an ambitious goal of engaging students, faculty and others in changing the practice of law. They have some overlap. For example, both ReInvent Law and the NuLawLab have incorporated aspects of “design thinking,” defined as “a human-centered approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.”⁵⁶ In general, however, each of these law labs has taken a different approach to the challenges of legal innovation, described in further detail below.

53. *Law Immigrants’ Rights Lab*, U. DENVER STRUM C. L., <http://www.law.du.edu/forms/registrar/course-description.cfm?ID=660> (last visited May 29, 2015).

54. *Kirkland & Ellis Corporate Lab*, U. CHI. L. SCH., <http://www.law.uchicago.edu/corporatelab> (last visited May 29, 2015).

55. *Harvard Food Law Lab*, PETRIE-FLOM CENTER, <http://petrieflom.law.harvard.edu/research/food-law-lab> (last visited May 29, 2015).

56. *IDEO*, <http://www.ideo.com/about/> (quoting Tim Brown, IDEO President and CEO) (last visited May 31, 2015). See generally Tim Brown, *Design Thinking*, HARV. BUS. REV. (June 2008) (defining design thinking as “a discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity.”).

Hofstra Law, Logic and Technology Lab:

Founded in 2010 by Professor Vern R. Walker, the Hofstra LLT Lab appears to be the oldest of the law school-based legal innovation labs. The LLT Lab's mission is "to conduct empirical research on legal reasoning in substantive areas of law, using a logic-based analytic framework and state-of-the-art technology—in order to create knowledge, skills and tools that enhance legal practice and legal education."⁵⁷ Through this approach, the LLT Lab aims to "help increase the transparency, fairness, accuracy and efficiency of legal processes in society."⁵⁸ It focuses on projects that: (1) have substantial social importance; (2) would benefit from increased accuracy and efficiency; and (3) would produce research that will translate to other legal areas. For example, one project involves using logic trees to understand, synthesize, critique and predict the results in medical malpractice cases. Building on these outcome analyses, the lab is also working on "the automation of argumentation-mining of legal documents using software that can cull documents for e-discovery."⁵⁹

Among the products the LLT Lab creates are Rule Trees, which map out the logic of legal rules that govern the decisions the lab is investigating. These products have been adapted for use by law students and practitioners who seek a deeper, organized understanding of decisions within a particular field.⁶⁰ While the lab is not a clinic per se, senior student researchers are appointed to work for the lab to develop rule trees and other products. Further, students may take classes that engage with LLT Lab projects and lab-developed technologies both in the United States and abroad.⁶¹

The LLT Lab positions itself as a science lab. It deliberately employs a modified scientific method to reach its conclusions, and engages with interdisciplinary colleagues to do its work. In fact, the Hofstra LLT Lab's work can be seen as defining a new technology-enabled area of legal practice that combines rigorous data analysis with new forms of legal analysis. The LLT Lab's vision is that this approach will be integrated with more traditional types of legal learning so that lawyers are better able to enhance efficiency and fairness in law and policy.⁶²

ReInvent Law Laboratory, Michigan State University Law School:

Founded by Professors Daniel Martin Katz and Renee Knake, the ReInvent Law Laboratory at Michigan State Law School, like the LLT Lab, engages with

57. *Welcome*, L. LOGIC & TECH. RES. LABORATORY, <http://lltlab.org/index.php/site/welcome/> (last visited May 29, 2015).

58. *Id.*

59. *Id.*

60. *See, e.g.*, Professor Walker has written about this approach in Vern Walker, et al., *A Framework for the Extraction and Modeling of Fact-Finding Reasoning from Legal Decisions: Lessons from the Vaccine/Injury Project Corpus*, 19 *Artificial Intelligence & L.* 291 (2011).

61. L. LOGIC & TECH. RES. LABORATORY, *supra* note 57.

62. *Id.*

the intersections of law and technology. ReInvent Law’s vision relates to legal access, stating: “We imagine a world where quality legal services are affordable, accessible, and widely-adopted.”⁶³ A particular focus of the ReInvent Law Laboratory is exploring the ways in which technology and design—specifically “Law + Tech + Design + Delivery”—can enhance the practice of law.⁶⁴

ReInvent Law does not operate as a clinical program. Rather, it has developed a series of sophisticated classroom courses and smaller modules that introduce Michigan State law students to principles of design thinking⁶⁵ and prod students to master quantitative analysis relevant to law, explore developing technologies such as e-discovery and virtual practice, and identify new approaches to law practice management.⁶⁶ The Entrepreneurial Lawyering Startup Competition sponsored by the ReInvent Law Lab is another avenue for student engagement and invention.⁶⁷

ReInvent Law has showcased its work through the publication of significant legal scholarship. Professor Katz and his collaborators have published a series of widely read papers that use computer modeling to predict Supreme Court voting patterns,⁶⁸ to visualize the operations of federal judicial and professorial networks,⁶⁹ and to map the complexity of laws such as the tax code.⁷⁰ Professor Knake has published on lawyer ethics, critiquing restrictions on practice contained in the legal ethics rules.⁷¹ However, consistent with the idea of a “change lab,” ReInvent Law presents these not only as scholarly contributions, but as examples of moving beyond theory to actual building

63. REINVENT L. LABORATORY, <http://www.reinventlaw.com/> (last visited May 29, 2015).

64. *Id.*

65. See Margaret Hagan, *Design Thinking and Law: A Perfect Match*, L. PRAC. TODAY (Jan. 2014), available at http://www.americanbar.org/content/newsletter/publications/law_practice_today_home/lpt-archives/2014/january14/design-thinking-and-law.html (“Design, put shortly, is the practice of making things that are useful, usable and engaging. It is domain-agnostic—it is about methods and outcomes, not about a particular subject matter.”).

66. *Current Offerings: “math will be on the exam,”* REINVENT L. LABORATORY, <http://www.reinventlaw.com/lab/learn.html> (last visited May 29, 2015). This aspect of the program is described in greater detail in Knake, *supra* note 52, at 851-54.

67. John Schwartz, *This is Law School?: Socrates Takes a Back Seat to Business and Tech*, N.Y. TIMES, Aug. 1, 2014 at ED24.

68. Daniel Martin Katz, Michael James Bommarito II, & Josh Blakman, *Predicting the Behavior of the Supreme Court of the United States: A General Approach* (July 21, 2014), available at <http://ssrn.com/abstract=2463244>.

69. Daniel Martin Katz, et al., *Reproduction of Hierarchy? A Social Network Analysis of the American Law Professoriate*, 61 J. LEGAL EDUC. 76 (2011).

70. Michael Bommarito, Daniel Martin Katz & Jillian Isaacs-See, *An Empirical Survey of the Written Decisions of the United States Tax Court (1990-2008)*, 30 VIRGINIA TAX REV. 523 (2011).

71. See, e.g., Renee Knake, *Democratizing the Delivery of Legal Services*, 73 OHIO ST. L.J. 1 (2012).

and testing of models and prototypes.⁷² As the ReInvent Law website states, “[t]his is a lab, and in a lab, you build things.”⁷³

Finally, ReInvent Law has mounted a series of successful events worldwide, from Dubai to London to Silicon Valley, focused on emerging connections between law and technology and their implications for the business of law.⁷⁴ These lab-sponsored gatherings have often included pitch sessions and startup competitions designed to generate new ideas in the areas of law, business and technology. In this way, ReInvent Law makes good on its promise to “solve problems” by developing “solutions for the education, practice and regulation of lawyers.”⁷⁵

NuLawLab:

The NuLawLab at Northeastern University School of Law was founded in 2011 by a small group of law school faculty and staff, of which I was one. We were spurred by perceived changes in the legal profession and a desire to develop new ways of practicing law to respond to, and shape, these changes.

The NuLawLab shares with other law school-based innovation labs a vision related to legal access, envisioning a world where “everyone is empowered to use the law.”⁷⁶ And, like the LLT Lab and ReInvent Law, NuLawLab works across technical and scientific disciplines to employ sophisticated technologies. However, as our thinking about the lab developed in the years before it was formally launched, the faculty and staff spearheading the effort decided to place particular emphasis on the connections among the arts and humanities and law. We were inspired by the ways in which design thinking approaches had been incorporated into teaching and learning across the larger university, and we wanted to explore design thinking’s utility for law and policy change.⁷⁷ Further, consistent with Northeastern Law School’s status as a leading public interest law school, we envisioned using design approaches and new technology as means to enhance the community-legal partnerships.⁷⁸

As a fledgling lab, we took the time to shape an identity and to master the techniques that we wanted to employ. Early projects were small-scale and very

72. See, e.g., Paul Lippe, Daniel Martin Katz & Dan Jackson, *Legal by Design: A New Paradigm for Handling Complexity in Banking Regulation and Elsewhere in Law*, 93 OR. L. REV. 831 (2015).

73. REINVENT L. LABORATORY, <http://www.reinventlaw.com/main.html> (last visited May 29, 2015).

74. See, e.g., REINVENT L. LONDON, <http://reinventlawlondon.com> (last visited May 29, 2015).

75. *Solving Problems Faced by the Legal Community*, REINVENT L. LABORATORY, <http://reinventlaw.com/lab/solve.html> (last visited May 29, 2015).

76. NULAWLAB, <http://www.nulawlab.org> (last visited May 29, 2015).

77. For ideas on design thinking and law, see Hagan, *supra* note 65.

78. See *Best Schools for Public Interest Law*, NAT’L JURIST (Feb. 12, 2014), <http://www.nationaljurist.com/content/best-schools-public-interest-law> (ranking Northeastern in the top 25 public interest schools).

local—as in, law-school based—and not always narrowly legal. For example, we engaged faculty, staff, and students from across the university in designing new approaches to encourage more Northeastern law students to leave the Boston area to complete their required co-op placements. In another initial project, we developed a proposed redesign of the moot court experience for a sister law school.

Over time, however, as the lab hired dedicated staff and was able to take on more complex projects, our thinking about the lab's capacities and strengths came into focus. We framed NuLawLab's work according to three interlocking principles for 21st-century legal practice: community partnerships; interdisciplinary approaches; and transformation of legal education. As we originally envisioned, the community partnerships prong takes the form of "codesign"—a deep engagement between the lawyers and the community that enlists principles of design thinking, empathy, observation and end-user-engaged ideation to craft solutions to legal challenges.⁷⁹ The second prong, interdisciplinary approaches, builds on the models pioneered by successful firms such as IDEO, which deliberately address design problems by engaging across disciplinary lines. At the NuLawLab, interdisciplinary approaches have been facilitated by the lab's location on a large and diverse university campus, but have also been enhanced by the recruitment of a full-time artist to the NuLawLab's staff. The third prong, transformation of legal education, has been furthered by student engagement in lab projects that introduce them to design thinking approaches, and encourage them to integrate their own legal and nonlegal skills into their problem solving.

Like other legal innovation labs discussed above, the NuLawLab is engaged in building and creating. Our methodological flow chart—"imagine, design, test, and implement"—draws from the iterative practices of scientific laboratories, an approach that was also part of John Bradway's vision.⁸⁰ For example, the NuLawLab worked as part of a team with Studio REV (a nonprofit art organization), Boston's Brazilian Immigrant Center, law students and computer and engineering students at MIT's Media Lab to develop a mobile outreach tool to educate domestic workers about their rights under new employment laws.⁸¹ In another project, working with Connecticut legal aid providers, Northeastern University's game design department, and a law student team, the lab is creating a virtual game to help prepare *pro se* litigants

79. For an example of codesign in a public policy context, see *Co-Design in Smart Cities: A Guide for Municipalities from Smart Cities*, SMARTCITIES, <http://www.smartcities.info/files/Co-Design%20in%20Smart%20Cities.pdf> (last visited May 29, 2015).

80. Bradway, *supra* note 16, at 275-76 ("A legal clinic and a legal aid society in this respect is a sort of laboratory. The great volume of work, the repetition of certain types of cases, and the careful system of record-keeping show up in time certain points in the law where improvement is necessary. Such information cannot be secured in bulk in any other way.").

81. *The Domestic Worker App*, NULAWLAB, <http://www.nulawlab.org/view/the-domestic-worker-app> (last visited May 29, 2015). See, e.g., Contessa Gayles, *Five Apps to Help Change the World*, CNN MONEY (June 27, 2014, 9:15 AM), <http://money.cnn.com/gallery/technology/mobile/2014/06/27/apps-social-activists>.

for court.⁸² That project is currently in the testing phase. And partnering with Maine's Pine Tree Legal Services, law students, veterans groups, and artists, the lab is developing new digital outreach interfaces to connect with women veterans who are entitled to benefits but have failed to register for them.⁸³

The NuLawLab is also engaged with communities, scholars, and advocates in using storytelling and virtual mapping to illuminate the results of advocacy efforts in ways that will support future strategic goals. For example, collaborating with a sociology professor and several law students, the lab is developing a visual map of slum evictions in India and the impacts of lawyer involvement on those proceedings.⁸⁴ Since mapping is increasingly used as an advocacy tool worldwide, we are particularly enthusiastic about adding this to law students' toolkits.⁸⁵

While each of these projects is being developed in conjunction with specific communities and needs, we hope that in each instance we can repurpose the results for broader uses and greater positive impacts on the larger issue of access to justice. For example, the Connecticut-based game has significant potential as a tool for legal education in many settings, including law schools, and the domestic workers app has potential uses among caregivers of all sorts.

Further, as we work on individual projects, we strive to be attentive to the larger motivations that led to the lab's creation in the first place—in particular, the idea that the lab might play a role in reshaping the law itself. For example, as the lab team works to increase women veterans' drawdown of their benefits, we are learning more about their needs, and we can use that knowledge and the iterative process to shape an underlying program that is more responsive to them. Similarly, as lab members observe *pro se* litigants in court, we learn not only what these litigants need to know to navigate the system, but also something about how courts might themselves change to improve their interface with litigants. Our NuLawLab seminar, an intensive course offered every other quarter, provides a place for exploring these larger ideas while also giving law students a chance to combine their creative capacities with their legal knowledge to solve more immediate problems posed by the lab's project work.

82. *Online Simulation for Self-Represented Parties*, NULAWLAB, <http://www.nulawlab.org/view/online-simulation-for-self-represented-parties> (last visited May 29, 2015). See Alaine Griffin, *Virtual Court: Video Game Could Help Litigants Who Don't Have a Lawyer*, HARTFORD COURANT, Sept. 15, 2014.
83. *Women Veterans Outreach Tool*, NULAWLAB, <http://www.nulawlab.org/view/women-veterans-outreach-tool> (last visited May 29, 2015). See Jennifer Rocks, *Maine Legal Aid Group Wins Grant to Aid Women Veterans*, MAINE PUB. BROADCASTING NETWORK (Dec. 19, 2014), available at <http://news.mpbn.net/post/maine-legal-aid-group-wins-grant-help-female-veterans>.
84. *Legal Access in Urban India*, NULAWLAB, <http://www.nulawlab.org/view/legal-access-in-urban-india> (last visited May 29, 2015).
85. See, e.g., Marta Poblet, *Visualizing the Law: Crisis Mapping as an Open Tool for Legal Practice*, 1 J. OPEN ACCESS TO L. 1 (2013) (arguing that law school should train students in mapping), available at http://heinonline.org/HOL/Page?handle=hein.journals/jopacc1&div=14&g_sent=1&collection=journals.

Term to term, groups of students and seminar alumni can move lab projects through the phases of imagining, designing, testing and implementing and, when needed, re-imagining, re-designing, re-testing and re-implementing, to ensure a successful result.

The transformation of law is a tall order. However, through the lab's project work, and by engaging law students in the interdisciplinary creative processes of community codesign, we believe that the NuLawLab is moving toward achieving its transformative mission.

Conclusion

The early proponents of experiential training in law school could not have foreseen the rise of innovation and entrepreneurship in the 21st century, and the acute pressures for change faced by law schools and the legal profession as a result. A growing number of law schools have responded to these pressures by creating law school-based labs, which invoke the positive associations with labs in the larger culture to promise new approaches to legal problems. My informal survey identified more than a dozen law school-based labs.

This article focuses on three legal innovation labs, each of which adopts a unique approach to promoting changes in the practice of law and legal education. The LLT Lab invokes logic and primary analysis combined with technology; the ReInvent Law Laboratory promotes ideation and "building" solutions using sophisticated analytics; and the NuLawLab employs multidisciplinary approaches, including technology, in community-based codesign and other problem-solving.

None of us can predict the future of law schools and law practice with certainty. But each of these law school-based legal innovation labs envisions a future of expanded access to law and legal assistance. Through their work with students and other partners across disciplines to provide new forms of legal analysis, information and assistance, legal innovation labs are attempting to shape that future.